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203-13  
July 1944

65007

EE-393

U.S. MID

9505  
airplane  
Earl. file  
July 4

BOMB

CAR

FIGHT

# TACTICAL PLANNING

## Characteristics & Performance Chart

NOTICE: This document contains information affecting the National Defense of the United States within the meaning of the Espionage Act, 50 U. S. C., 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

PUBLISHED BY AUTHORITY OF THE COMMANDING GENERAL,  
ARMY AIR FORCES, BY THE CHIEF, ENGINEERING DIVISION,  
MATERIEL COMMAND, WRIGHT FIELD, DAYTON, OHIO

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WF-G-29-44-800

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**BOMBERS**

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# TACTICAL PLANNING

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~~CONFIDENTIAL~~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 2.67G and 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-BO (-1 thru -27)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-BO (-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 TRR. 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 17600
B-17F-BO -55 thru 1st.30 (-85)	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	A S A B O V E			2550 (-55 thru 1st.73 -80 3630 (Last 27 -80 & Sub.
B-17F-BO Last 70 (-85) thru -130	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE EXCEPT THAT EXTERNAL BOMB RACKS DELETED AFTER 15th. (-95)			3630
B-17G-BO (-1 thru -110)	2) 2) 2) 2) 2)	300 c 365 300 600 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. 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	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. 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	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE			PROV. FOR EXTERNAL RACKS ON -20 & SUB.
B-17F-DL -25 thru 1st.21 (-35)	A S A B O V E			AS ABOVE			PROV. FOR EXTERNAL RACKS
B-17F-DL Last 13 (-35) thru -65	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	A S A B O V E			AS ABOVE
B-17G-DL (-1 thru -40)	2) 2) 2) 2) 2)	300 c 365 300 600 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	A S A B O V E			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.) IN 1st. 12 AIRPLANES: NOSE GUN DELETED ON NEXT 28 THRU (-10). NO RADIO COMPARTMENT GUN UNTIL LAST 14 (-15). OTHER ARMAMENT	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-VE (-15 & -20)	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	EXTERNAL RACKS ON Last 31 (-20) & SUB.			AS ABOVE
B-17F-VE (-25 & -30)	A S A B O V E			AS ABOVE			2-2000 6-1600 2-4000x 17600 (B-17F-25) 3630 (B-17F-30)
B-17F-VE (-35 thru -50)	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE			9600
B-17G-VE (-1 thru -90)	2) 2) 2) 2) 2)	300 c 365 300 600 d 400 500 565	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE			PROVISION FOR RACKS

NOTES: a NOT ON B-17F-1 & -5. d EARLY B-17G MODELS CARRY 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 6-1600 LB.  
ARMED PIERCING BOMBS MAY BE CARRIED, BUT  
BOMB RAIL LOAD FACTORS AND CLEARANCES ARE  
REDUCED AND MANEUVERING OF AIRPLANES MUST  
BE LIMITED ACCORDINGLY.

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AS OF:  
DATE: 26 June 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	B.H.P./ALT.	S-SPAN			B-BASIC	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & PER CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL		EXTERNAL	MAX. LOAD LB.	TYPE	FOR DETAILED ARMAMENT AND BOMB INSTALLATIONS SEE PAGE OPPOSITE
		PROP. MFG. TYPE	T-TAKE-OFF M-MILITARY C-CONTINUOUS	L-LENGTH H-HEIGHT T-TREAD W-WING AREA			C-COMBAT R-RECD LIM W-WAR MAX						NO. & SIZE OR STATION		NO. & SIZE OR CAPACITY			
B-17F	4	WRIGHT R-1820-97 TURBO HAMILTON STD. 11"7" DIA. - 3BL. P.F. HYDROMATIC	1200/5 L	103'9" L 74'9" H 19'1" T 21'2" W 1120 SQ. F	36000 B 55000 C 56000 R 56000 W 61000A	9	MAIN - WINGS BOMB BAY	6-1730 2x 410 2550 TOT	2) 300 2) 300 1) 300 2) 400 2) 500 2) 565	NOSE - FLEX. SIDE WAIST-PL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	2-2000 C 6-1600 6-1000 12- 500 2-1600 2-1000	2-1000 2-2000 b 2-1000	C 6-1600 b 2-1000 17600	SEE NOTE (B)	TECHNICAL ORDER 01-202P-1. (1 OCT. 1943) EXTERNAL BOMBS ON SOME MODELS ONLY.			
B-17F (WITH WING TIPTANKS)	4	AS ABOVE	AS ABOVE	AS ABOVE	38000 B 55000 C 56000 R 56000 W 61000A	9	MAIN - WINGS WING TIPS BOMB BAY	6-1730 2x 540 3630 TOT	3) 300 2) 300 1) 300 2) 400 2) 500 2) 565	NOSE - FLEX. SIDE WAIST-PL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE			
B-17G	4	AS ABOVE	AS ABOVE	L 74'4" H 19'1" T 21'2" W 1120 SQ. F	AS ABOVE	9	AS ABOVE EXCEPT PROVISIONS ONLY FOR THE BOMB BAY TANKS	6-1730 2x 540 3630 TOT	2) 300 2) 300 1) 300 2) 400 2) 500 2) 565	CHIN TURRET SIDE WAIST-PL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS	AS ABOVE	NOTE (B) plus RC-103	TECHNICAL ORDER 01-202P-1. (1 OCT. 1943) LATEST B-17's HAVE NEW TYPE SUPERCHARGER (B-22) GIVING INCREASED ALTITUDE PERFORMANCE. LATER MODELS HAVE 600 H.P. /GUM: EARLY MODELS 500 H.P./GUM LENGTH INCREASED 5" ON LATER MODELS TO 74'4".			

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' DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.	LAND. DIST.	WEIGHT	STD. ALT.	MIL. POWER	MAX. CONTIN. POWER	TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE									
LB.	FT.	FT.	MPH	FT.	FT.	LB.	FT.	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.	RANGE	ENDUR.			
B-17F	40000	-	3900	90	-	2000	50000	30000	298	400	280	225	52.0	1250	5.5	1400	5.6	1850	9.1	1950	8.9	2600	17.2				
B-17F (WITH WING TIPTANKS)	50000	-	4750	100	-	2700	55000	25000	299	725	274	150	36.2	900	3.9	950	4.0	1300	6.6	1350	6.3	1800	11.1				
B-17G	55000	3950	5200	104	3050	3050	55000	20000	288	850	366	550	25.7	50500	6000	1730	850	3.7	1200	6.1	1250	5.9	1700	10.5			
B-17G	56000	4100	-	105	3150	-	55000	15000	274	950	355	675	17.3	56500	6000	1730	850	3.7	1200	6.1	1250	5.9	1700	10.5			
B-17G	57000	4300	-	105	3400	-	55000	10000	263	1050	345	750	10.2	56500	6000	1730	850	3.7	1200	6.1	1250	5.9	1700	10.5			
B-17G	61000	6100	-	105	1800	-	55000	5000	252	1125	326	4.0	56500	6000	1730	1350	6.0	1450	6.0	1900	10.0	-	-	3200	21.2		

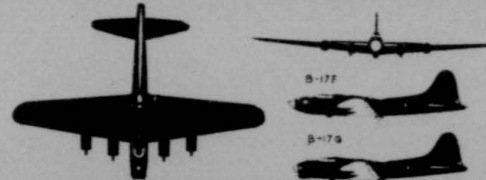
NOTES: (B)

24 VOLT RADIO SYSTEM  
SCR-211 FREQUENCY METER  
SCR-2590 RADIO COMPASS  
SCR-274A COMMAND SET  
SCR-287A LIAISON SET  
SCR-695 SET (or SCR-595)  
SCR-576 EMERGENCY TRANSMITTER  
RC - 32 FILTER EQUIPMENT (or RC-198)  
RC - 36 INTERPHONE AMPLIFIER  
RC - 138 MARKER BEACON  
RC - 103 BLEND LANDING (Provisions only)  
SCR-522 COMMAND SET

RED FIGURES ARE PRELIMINARY; 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 ARMAMENT & HEAVIER BOMB-FUEL COMBINATIONS THAN LISTED UNDER "RANGE & ENDURANCE". DETAILS & RESULTANT PERFORMANCE ARE UNDER INVESTIGATION.  
(C) LATEST INVESTIGATION SHOWS THAT 8x1600 LB. ARMOR PIERCING BOMBS MAY BE CARRIED, BUT BOMB RAIL LOAD FACTORS AND CLEARANCES ARE REDUCED & MANEUVERING OF AIRPLANE MUST BE LIMITED ACCORDINGLY.

MANUFACTURED BY BOEING - DOUGLAS - VEGA



B-17  
"FORTRESS"

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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 NO & SIZE	EXTERNAL NO & SIZE	MAX. LOAD LB.	
B-24D-CO D thru 1st. 94(-15)	1) 2) 2) .50	200 400 400	NOSE..... FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	2364
B-24D-CO Last 36(-15) thru -20	1) 2) 1) .50 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-24D-CO -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-CO 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-24J-CO (-1 thru -299)	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

NOTES: a NOT ON B-24D-25.

CONSOLIDATED (FT. WORTH) "CP"

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		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	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 a)		AS ABOVE
B-24H-CF (-20 thru -30)	2) 2) 2) .50 2) 2)	400 508 400 508 400	NOSE TURRET S. WAIST-K6 MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-CF (-101 to -)	A	S	A	B	O	V	E

NOTES: a B-10 SHACKLES FOR 8-1600 LB. BOMBS START ON 2101st. FORD KNOCK-DOWN SET.  
b B-24H-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 NO & SIZE	EXTERNAL NO & SIZE	MAX. LOAD LB.	
B-24H-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-24E-FO (-1 thru -15) (FORD)	A S	A B O V E		A S	A B O V E		AS ABOVE
B-24H-DT & FO (-20 thru -30)	2) 2) 2) .50 2) 2)	400 508 400 508 400	NOSE TURRET S. WAIST-K6 MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-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-24H-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 NO & SIZE	EXTERNAL NO & SIZE	MAX. LOAD LB.	
B-24G-NT (-1 thru -5)	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		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-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"

ARMAMENT		BOMBS			FUEL U.S. GAL. (MAXIMUM)
RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
200 100 100	NOSE.....FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
200 100 100 100	NOSE.....FLEX. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	A S	A B O V E		2364 Last 36(-15) 3614 -20 & sub.
100 250 100 100 100	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
100 250 100 508 100	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E	AS ABOVE	
100 250 100 508 100	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E	AS ABOVE	

CONSOLIDATED (FT. WORTH) "CP"

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)	100 250 100 100 100	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		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-CF (-1 thru -60)	2) 2) 2) .50 2)	100 250 100 508 100	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E (SEE a)		AS ABOVE
B-24E-CF (-1 thru -15)	2) 2) 2) .50 2) 2)	100 500 <sup>b</sup> 100 508 100	NOSE TURRET S. WAIST-K6 MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24J-CF (-1,01 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-24E-20 HAS PROVISIONS FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

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

ARMAMENT		BOMBS			FUEL U.S. GAL. (MAXIMUM)
RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
100 250 100 508 100	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
A B O V E		A S	A B O V E		AS ABOVE
100 500 <sup>b</sup> 100 508 100	NOSE TURRET S. WAIST-K6 MT. UPPER TURRET LOW BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
S	A	B	O	V	E

DT & FO AIRPLANES RECEIVE NEW B-24J DESIGNATIONS  
C-1 AUTOMATIC PILOT & M-9 BOMB SIGHT REPLACE A-5  
AUTOMATIC PILOT & S-1 BOMB SIGHT.

FOR 8-1600 LB. BOMBS STARTS ON 2101st. FORD KNOCK-DOWN SET.  
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 NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-24G-NT	3) 2) 2) .50 2) 2)	250 TOT. 250 100 508 100	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)	100 250 100 508 100	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		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-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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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFG. MODEL SUPERCHARGER PROP MFG. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA			B-BASIC C-COMBAT R-RECD LIM W-WAR MAIL	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE STATION			EXTERNAL NO. & SIZE CAPACITY
B-24D	4	PRATT-WHITNEY R-1830-13 TURBO HAMILTON STD. 11'7" DIA. - 3BL. F.F. HYDRA-MATIC	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 3/4"	B 31500 C 56000 R 56000 W 61000	8	MAIN - WINGS	12-2364	3) 2) 2) 1) 2)	100 250 100 100 100	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET TUNNEL - FLEX. TAIL TURRET	1-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	SEE NOTE (B)	TECHNICAL ORDER 01-58C-1 (10 NOV. 1943)
B-24D (WITH BOMB BAY TANKS)	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	8	MAIN - WINGS BOMB BAY	12-2364 2x 100 3164 TOT	3) 2) 2) 2) 2)	100 250 100 508 100	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET LOW BALL TURRET TAIL TURRET	AS	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
B-24D (WITH WING TIP TANKS)	4	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 1200/26500 1100/27000	AS ABOVE	B 36500 C 56000 R 56000 W 61000A	8	MAIN - WINGS BOMB BAY WING TIPS	12-2364 2x 100 3614 TOT	AS	AS ABOVE	AS	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
B-24G,H&J	4	AS ABOVE EXCEPT R-1830-65 ENGINE IN LIEU OF -13 ON B-24G-5-WT & subvar B-24H-5-CF subvar; B-24J SERIES.	AS ABOVE (SEE a)	S 110'0" L 67'2" H 18'0" T 25'8" W 104'8 3/4"	B 37500 C 56000 R 56000 W 61000A	8	AS ABOVE	AS ABOVE	2) 2) 2) 2) 2)	100 250 100 508 100	NOSE TURRET SIDE WAIST-PL. UPPER TURRET LOW BALL TURRET TAIL TURRET	AS	AS ABOVE	AS ABOVE	AS ABOVE	(A) SEE FOOT NOTE "A" TECHNICAL ORDER 01-58E-1 (REV. 15 MAY 1944) LATEST B-24J MODELS HAVE NEW TYPE SUPERCHARGER (B-22) GIVING INCREASED ALTITUDE PERFORMANCE. a BEING INCREASED TO 500 RDS; NO EFFECTIVE POINT YET. b PER EXTERNAL BOMB RACKS BEING INSTALLED AT MOD. CENTERS. c (K-6) MOUNT AT SIDE WAIST POS. ON B-20 SUBS. (CF, DT & FC)

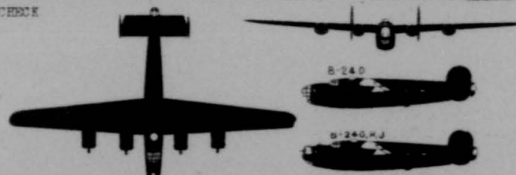
MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE					
	GROSS WEIGHT LB.	TO CLEAR 50' FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.							
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	T.O. SPEED MPH		RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	TIME TO CLIMB MIN.				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	
B-24D	40000 51000 56000 59000	- 1500 5050 6200	3300 4200 4300 -	90 103 105 -	2800 3150 3600 4450	2800 3450 3550 -	30000 25000 20000 15000 10000 5000	278 303 277 264 254 224	500 900 1000 1150 1200 1200	278 297 284 272 259 216	300 700 800 950 1000 -	11.5 30.2 22.0 15.4 9.7 4.2	53000 58000	NONE 5000	2364 2364	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 51000 59000 60000	- 1500 6200 6600	3300 4200 -	90 103 -	2800 3150 4750 -	2800 3450 -	30000 25000 20000 15000 10000 5000	278 303 277 264 254 224	500 900 1000 1150 1200 1200	278 297 284 272 259 216	300 700 800 950 1000 -	11.5 30.2 22.0 15.4 9.7 4.2	58500 53000 58000	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 1900 1800	11.5 8.5 8.3	3200 2450 2300	20.0 15.2 14.4	
B-24D (WITH WING TIP TANKS)	40000 56000 60000 62000 61000	- 5050 6200 6600 6750	3300 4300 -	90 105 -	2800 3600 4750 -	2800 3550 -	30000 25000 20000 15000 10000 5000	278 290 277 264 254 224	500 775 900 1000 1035 1050	278 278 267 256 246 235	300 600 725 825 875 900	11.5 31.0 22.5 16.5 10.6 4.8	63500 60500 61000 60000	NONE 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 2750 2300	22.2 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. DEPENDING ON TIME SINCE OVERHAUL.
B-24G,H&J	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	30000 25000 20000 15000 10000 5000	278 290 277 264 254 224	500 775 900 1000 1035 1050	278 278 267 256 246 235	300 600 725 825 875 900	11.5 31.0 22.5 16.5 10.6 4.8	61500 62000 61000	NONE 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	3300 2900 2100	20.2 18.2 13.0	** PERFORMANCE DATA ABOVE 65000 LB. NOT YET AVAILABLE; SEE NOTE (A).

NOTES: (B) 24 VOLT RADIO SYSTEM

SCR-211	FREQUENCY METER	SCR-522	COMMAND SET
SCR-2699	RADIO COMPASS		
SCR-271N	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 - 138	MARKER BEACON		
RC - 103	BLIND LANDING (Provisions only)		
AN/ARR-1	(Installed in some models)		

RED FLOWS ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECKS  
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.



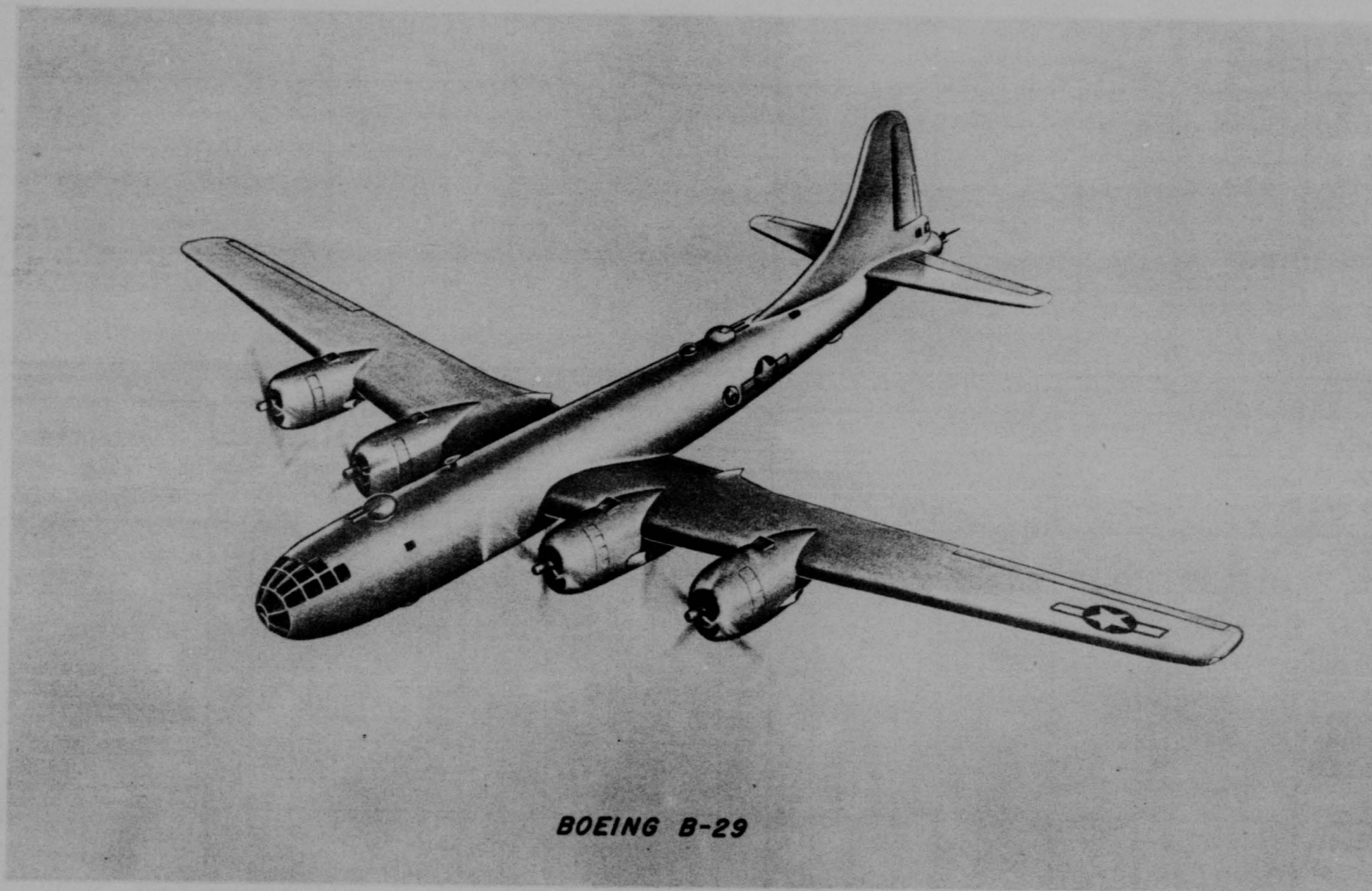
**B-24**  
"LIBERATOR"

MANUFACTURED BY CONSOLIDATED - FORD - DOUGLAS - NORTH AMERICAN

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**BOEING B-29**

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
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MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFGR. MODEL SUPERCHARGER PROP MFGR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WINGAREA	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	
B-29-BW -1 TO-25 INCL B-29A-BN B-29-BA -1&-5	4	WRIGHT R-3350-23 TURBO HAMILTON STD. 16 1/2" DIA. - 4 BL. P.P. HYDROMATIC	T 2200/8 L M 2200/25000 C 2000/25000	S 111'3" L 90'0" H 27'9" T 31'6" W 1739 SQ. FT.	B 71600 C 120000 R 120000 W 135000	10	OUTBD. -WINGS INBD. -WINGS BOMB BAY	11-2735 8-2873 4x 640 5168 TOT	1-20MM 2) 2) 2) .50 2) 2)	100 1000 1000 1000 1000	TAIL-M2, TYPE B UPPER FUSE THR. UPPER REAR THR. LOWER FUSE THR. LOWER REAR THR. TAIL-POWER MT.	1-4000 8-2000 12-1600 12-1000 10-500	NONE	20000 SEE (A)	SEE NOTE (B)	TECHNICAL ORDER 01-206J-1. (25 JAN. 1944) R-20-103 NOT ON B-29-1-BW. *- OUTBOARD TREAD-31'6" ; INBOARD TREAD- 25'8".	
			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												

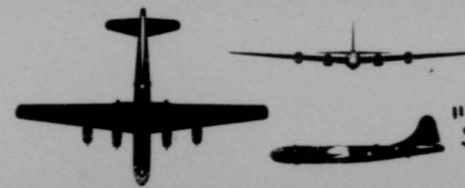
MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE									
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE										
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS			
B-29-BW -1 TO-25 INCL B-29A-BN B-29-BA -1&-5	84000 90000 105000 120000 135000	- 3150 4500 6100 8000	3200 3500 4400 5400 -	95 100 110 120 -	- 2300 3150 3600 -	2300 2500 3000 3600 -	120000 120000 120000 120000 120000	30000 25000 20000 15000 10000 5000	361 351 340 326 313 292	300 150 600 750 900 1000	316 338 327 311 301 288	110 260 160 590 720 815	63.0 43.0 30.0 20.0 12.0 6.0	134000 125000 133000 120000	NONE NONE 8000 4000	8168 6888 6888 5608	( AVAILABLE DATA AT WEIGHTS ABOVE 120000 LB. IS SUFFICIENT FOR RANGE CALCULATION)				1500	5.5	1600	5.5	2800	12.2	2200	8.1	3300	16.9

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

RED FIGURES ARE FIELD DATA; SUBJECT TO REVISION AFTER FLIGHT CHECK

- (B)
- AN/ARC-8
  - SCR-269D
  - RC-43/193
  - RC-109
  - AN/ARN-5
  - RC-15
  - SCR-695
  - SCR-576
  - SCR-718
  - AN/APQ-13
  - RAVEN
  - AN/ASG-1
  - AN/ARR-1
  - PROVISIONS FOR:
  - AN/ARR-4
  - SCR-522
  - LFALSON SET
  - COMPASS (OF AN/ARR-7)
  - MARKER BEACON
  - GLIDE PATH RECEIVER
  - LOCALIZER RECEIVER
  - INTERPHONE (OF AN/ARC-1)
  - IFF
  - EMERGENCY TRANSMITTER
  - HIGH ALTITUDE ALTIMETER
  - HIGH ALTITUDE RADAR
  - RCM
  - STATIC DISCHARGER
  - ZB ADAPTER (SOME PLANES ONLY)
  - LODRM
  - VWF (SOME PLANES ONLY)

MANUFACTURED BY: (BOEING (WICHITA) "BW"  
(BOEING (RENTON) "BN"  
(BELL (ATLANTA) "BA")



**B-29**  
"SUPER FORTRESS"

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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 11  
AS OF:  
DATE 26 June 1944


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.	TYPE	
B-32-CF	WRIGHT R-3350-23 TURBO CURTISS 16" DIA. - LBL. CONST. SPD. - BLCT.	T 2200/5 L M 2200/30000 C 2000/32300	S 135' 0" L 82' 11" H 28' 0" T 28' 0" W 1122 3/4'	B 62670 C 100000 R 102800 W 123250	8	INNER CENTER 2 - 505 OUTER CENTER 2 - 513 INNER CENTER 2 - 292 OUTER CENTER 2 - 385 (SEE P)	2 - 505 2 - 513 2 - 292 2 - 385 5226 TOT.	2) 2) 2) 2) 2)	a 365 400 400 550 1000	NOSE TURRET FRONT TOP TRR. REAR TOP TRR. LOW BALL TRR. TAIL TURRET	1-4000 8-2000 8-1500 16-1000 40-500	NONE	20000	SCR-27LN, 211, 255, 4 287, 522, 4 695 & 718, RS-36, 103, 193 & 198	(MANUFACTURER'S PRELIMINARY ESTIMATES) a 365 RES./GUN (NORMAL); SPACE PROVISIONS FOR 600 RDS/GUN f MAXIMUM WING TANK CAPACITY-5226 GAL; OVERLOAD CON- DITIONS WITH 8226 GAL. ASSUMES 3000 GAL. CARRIED IN FUS. f RADIO LISTED FOR EXP. PLANES & FIRST FEW PROD. ARTICLES.

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 M.P.H.	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 M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	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
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.



**B-32**

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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) 2) .50	300 300	NOSE... FLEX. NOSE... FIXED	1-2000 3-1000	1-2000 T 6- 325	3-1000 8- 250	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	1624 (B-25D)
B-25C-NA (-25)	AS ABOVE EXCEPT NO LOWER TURRET			1-2000 2-1600	1-2000 T	2-1600	1524 (B-25C)
B-25D-NC (-20 thru -35)	ON 210 (D-20), -25, -30 & -35.			3-1000 6- 500 8- 250 12- 100	6- 325 8- 250 8- 100	8- 250 5200	1619 (B-25D)
B-25G-NA (-1 thru -10)	1-75MM 2-.50 2-.50 2-.50	21 400 200 200 c	NOSE CANNON M4 NOSE... FIXED UPPER TURRET LOWER TURRET	A S A B O V E			1619
B-25E-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) 2) 2)	400 300 300 200 600	NOSE... PACKAGE NOSE... FLEX. 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. c 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**

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AS OF:  
DATE 26 June 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		
B-25C & D (NA & NC)	2	WEIGHT B-2600-13 2 SPD. SUPERCH. HAMILTON STD. 12" DIA. - 3BL. F.F., HYDROMATIC	T 1700/ S L M 1700/ 1500 C 1150/ 13000 1500/ 6700 1350/ 23500	S 67'6" L 52' H 15'9" T 19'4" W 61.0 SQ. F.	B 20500 C 29500 R 33500 W 35000 B	5	MAIN - WINGS MAIN - WINGS BOMB BAY	2 x 154 2 x 151 1 x 585	1-.30 2-.50 2-.50	600 100 350	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. a-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 MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY	2 x 154 2 x 151 6 - 304 1 x 125 1 x 585	1) 1) 2) 2)	300 300 400 350	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET (On some models)	1-2000 2-1600 3-1000 6- 500 8- 250 12- 100	(SEE C)	2-1600 1-2000 T 2-250 8- 250 8- 100	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 MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY	2 x 154 2 x 151 2 x 304 1 x 125 1 x 585	1-75MM 2) 2) 2)	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	TECHNICAL ORDER 01-600C-1. (REV. 10 DEC. 1943) f-BOMB BAY FUEL CAPACITY CONSISTS OF 1-215 GAL. SELF SEALING REMOVABLE TANK & 1-355 GAL. METAL DROPPABLE TANK. 1-585 GAL. METAL TANK IS INTERCHANGEABLE.	
B-25H-NA -1 TO -10 INCL.	2	WEIGHT B-2600-13 or -29 2 SPD. SUPERCH. HAMILTON STD. 12" DIA. - 3BL. F.F., HYDROMATIC	AS ABOVE	AS ABOVE	B 22000 C 33500 R 33500 W 35000 B	5	MAIN - WINGS MAIN - WINGS AUX. - WINGS SIDE WAIST BOMB BAY	2 x 154 2 x 151 2 x 304 1 x 125 1 x 585	1-75MM 4) 4) 4)	21 400 400 350	NOSE CANNON-MT. NOSE - FIXED NOSE - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL-POWER MT.	AS ABOVE	(SEE C) 1-2000 T	3200	SCR-271M SCR-269G SCR-287 SCR-522 SCR-578 SCR-595 RC - 36	TECHNICAL ORDER 01-600D-1. (15 OCT. 1943) a-BOMB BAY CARRY ONLY 2 NOSE PACKAGE GUNS. f-BOMB BAY FUEL NOTE SAME AS FOR B-25G SHOWN ABOVE. **2000# BOMB STATION DELETED ON 131st AIRPLANE OF BLOCK B-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) 2) 2) 2) 2)	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-271M SCR-269G SCR-287 SCR-522 SCR-595 RC - 103 RC - 36	TECHNICAL ORDER 01-600E-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											
	TO CLEAR 50'		LANDING		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER	RATE OF CLIMB	MAX. CONTIN. POWER	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER			MAX. CRUISE POWER		LONG RANGE		
T.O. DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.	LAND. DIST.	AT 10000 FT.	AT 25000 FT.											AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE	ENDUR.	RANGE	ENDUR.
B-25C & D (NA & NC)	25000	-	3300	99	-	1550	20000	257	-	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 33200 34000 34900 35200	3800 4700 5500	3650 3900	108 112	2950 3700	1800 2000	20000 15000 10000 5000 S L	284 283 282 264	- 950 950 1000	262 283 276 274	- 350 650	21.3 5.0 0.0	31900 34000 33200 32000 32800	NONE NONE 974 2000 T 5200	1664 1599 974 974 974	- 700 650 600	2.9 2.9 2.9	- 1050 950 875	5.9 4.6 4.5	- - - - -	2700 2150 1500 1350 1125	11.8 13.6 8.1 8.2 6.9	* FOR SPECIAL FERRYING USE 1x125 GAL. SIDE WAIST FUEL TANK.	
B-25G-NA -1 TO -10 INCL.	32000 33700 34000 34900 35200	4700 5150 5450 5850 6000	3950 4050 4100	112 115 116	3700 4250 4350 4700	1950 2050 2100	20000 15000 10000 5000 S L	281 278 285 268	- 950 950 1000	262 277 274 276	- 350 650	21.3 11.6 5.0 0.0	31900 34000 33700 33500 35000	NONE NONE 2000 2000 T 5200	1624 1524 974 925 974	- 950 3.9 4.0 700	- - - - -	2200 2050 1550 1150 1250	10.3 9.6 7.3 7.2 5.8	- - - - -	2125 2250 1700 1175 1200	12.8 11.8 9.0 8.6 7.2	* INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. BOMBS ONLY or 1x2000# TORP. * FOR SPECIAL FERRYING USE 1x125 GAL. SIDE WAIST FUEL TANK.	
B-25H-NA -1 TO -10 INCL.	32000 33200 33700 34000 34800	4700 5150 5350 5450 5800	3950 4050 4050 4100	112 111 115 116	3700 4250 4350 4650	1950 2050 2100	20000 15000 10000 5000 S L	282 277 275 285	- 950 950 1000	262 275 270 275	- 350 650	21.3 11.6 5.0 0.0	35000 35000 35000 34000 34600	NONE NONE 2000 2000 T 3200	1624 1524 1189 1189 974	1250 1175 900 850 725	5.1 4.8 3.7 3.7 3.0	- - - - -	2200 2050 1550 1150 1250	10.3 9.6 7.3 7.2 5.8	- - - - -	2150 2300 1725 4550 1375	12.9 12.0 8.9 8.8 7.2	* INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. BOMBS ONLY or 1x2000# TORP. * STRIP TO 35000 LB. LIMITING WEIGHT: 1624 GAL. CONDITION INCLUDES 2x50 GAL. WAIST TANKS FOR SPECIAL FERRYING.
B-25J-NC -1, -5	32000 33700 34000 34800 35200	4700 5350 5450 5800 6000	3950 4050 4100 4100	112 115 116	3700 4250 4350 4650	1950 2050 2100	20000 15000 10000 5000 S L	282 277 275 285	- 950 950 1000	262 275 270 275	- 350 650	21.3 11.6 5.0 0.0	31900 34000 33000 34000 34600	NONE NONE 2000 2000 T 3200	1624 1524 1189 1189 974	- - 900 850 725	3.6 3.7 3.0	- - 1575 1150 1275	7.3 7.2 6.0	- - - -	2175 2325 1800 1575 1150	13.0 12.3 9.1 9.0 7.6	* INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. BOMBS ONLY or 1x2000# TORP. * 1624 GAL. CONDITION INCLUDES 2x50 GAL. WAIST TANKS FOR SPECIAL FERRYING.	

NOTES: (A)

24 VOLT RADIO SYSTEM

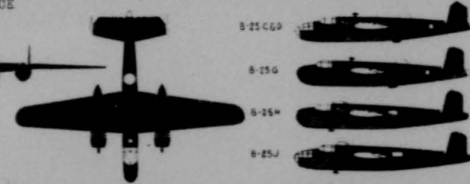
SCR-211 FREQUENCY METER  
SCR-269R RADIO COMPASS  
SCR-271M COMMAND SET (or SCR-522)  
SCR-287A LIAISON SET  
SCR-535 SET (or SCR-595 or SCR-695)  
SCR-578 EMERGENCY TRANSMITTER  
RC - 32 FILTER EQUIPMENT (or RC-198)  
RC - 43B MARKER BEACON  
RC - 103 BLIND LANDING (Provisions only)  
RC - 196 CONTACTOR UNIT  
RC - 36 INTERPHONE AMPLIFIER

RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK

\* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

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

(C) TORPEDOES BEING USED IN LIMITED QUANTITIES ONLY.



**B-25**  
"MITCHELL"

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA" &amp; NORTH AMERICAN (Kansas City) "NC"

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MARTIN (BALTIMORE) "MA"  
(YAMA) "MO"

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-26B-MA (B thru -4)	1-.30 1-.30 2-.50 2-.50	600 600 1900 400	NOSE...FLEX. TUNNEL...FLEX. TAIL...FLEX.MT. UPPER TURRET SIDE WAIST-FL.	2-2000 2-1600 1-1000 6-500 16-250 30-100	1-2000 (TORPEDO)	2-1600 1-2000T	1162	
B-26B-MA (-10 thru -20) B-26C-MD -5 thru 1st. 75(-30)	1) 1) 2) 2)	200 270 210 250 800 400	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-ME Last 127(-70)	A S	A B O V E		2-2000 2-1600 1-1000 6-500 10-250 20-100	AS ABOVE	AS ABOVE	1162	
B-26B-MA Last 50(-50) & -55 B-26F-MA -1, -2 & -6 B-26C-MJ -45	1) 2) 2) 2) 2)	270 210 250 200 800 400	NOSE...FLEX. SIDE WAIST-FL. U.FUS.-PACKAGE L.FUS.-PACKAGE TAIL-POWER MT. UPPER TURRET	AS ABOVE EXCEPT THAT B-26F-1, -2 & -6 HAVE THE TORPEDO DELETED.			AS ABOVE	
M1(B-40):AT-23A 1st. 109(B-45) " 3(C-25): AT-23B 7(C-30): AT-23B (C-35A-40):AT-23B 1st. 26(C-45) "	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 GUN ADDED TO LAST M1(-4) ONLY.  
\* B-26B-10, -15 & C-5 HAVE SAME TAIL GUN INSTALLATION & RDS./GUN AS B-26B-MA.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 15
CONFIDENTIAL																	AS OF:
																	DATE 26 June 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
B-26 B-MA B-2,3&4	2	PRATT-WHITNEY R-2800-5e 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.F. ELECTRIC	T 1850/3 L M 1850/2700 C 1500/7800 1150/13000	S 65'10" L 58'13" H 19'10" T 22'10" W 602 sq. ft.	B 23500 C 35000 R 36500 W 36500	6	MAIN - WINGS AUX. - WINGS B. BAY - (FORE)	2 x 360 2 x 121 2 x 250 1162 TOT	1-.30 1-.30 2-.50 2-.50	600 600 1500 400	NOSE - FLEX. TUNNEL - FLEX. TAIL-FLEX. MT. UPPER TURBET SIDE WAIST-FL.	2-2000 2-1600 4-1000 8-500 15-250 30-100	1-2000 (TORPEDO)	2-1600 1-2000†	SEE (A) SEE (B)	TECHNICAL ORDER 01-352A-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 -11 ENGINE & B-26B-3 & -4 HAS -13 ENGINE.	
B-26 B-MA -10 TO -20 INCL B-26 C-MO -5 TO -25 INCL	2	PRATT-WHITNEY R-2800-13 2 SPD. SUPERCH. CURTISS 13'6" DIA. - 4 BL. F.F. ELECTRIC	T 1920/3 L M 1920/3200 C 1550/7100 1360/11600	S 71'10" L 58'13" H 21'6" T 22'10" 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)	270 210 250 200 400 600	NOSE - FIXED NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURBET TAIL-POWER MT.	2-2000 2-1600 4-1000 8-500 10-250 20-100	A S A B O V E	AS ABOVE	TECHNICAL ORDER 01-352B-1. (25 DEC. 1943) a-B-26B-10;-15 & C-5 HAVE FLEX. TAIL MOUNT INSTEAD OF POWER MOUNT. & EDG./GUN SAME AS B-26B-2-MA. w-BASIC WEIGHT OF B-26B-15 IS 24,500 LB.		
B-26 B-MA -25 TO -55 INCL B-26 C-MO -30 & -45 INCL	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (FORE ONLY)	2 x 360 2 x 121 2 x 250 1162 TOT	A S	A B	SEE (a) NOSE - FLEX. NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURBET TAIL-POWER MT.	2-2000 2-1600 4-1000 8-500 10-250 20-100	1-2000 (TORPEDO)	2-1600 1-2000†	NOTE (A) plus RC-103 & SCR-522	REFERENCE AS ABOVE a-FIXED NOSE GUN DELETED ON LATEST B-26B's and B-26C-15. b-ALL MODELS EXCEPT 1st. 75 (B-26C-30) CARRY LESS BOMBS DUE TO DELETION OF 2 REAR BOMB BAYS. r RC-103 & SCR-522 ADDED TO LATER MODELS ONLY.	
B-26 F-MA -1, 2 & -6 B-26 G-MA -1 (SEE m)	2	AS ABOVE	AS ABOVE	S 71'10" L 56'1" H 20'16" T 22'10" 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 120 2 x 250 1500 TOT	1) 2) 2) 2)	270 210 250 200 400 600	NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURBET TAIL-POWER MT.	2-2000 2-1600 4-1000 8-500 10-250 20-100	NONE	4000	AS ABOVE	TECHNICAL ORDER 01-352C-1. (15 FEB. 1944) m B-26G DESIGNATION IS USED FOR AIRPLANES WITH AN FITTINGS; NO OTHER MAJOR CHANGES.	
			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'		GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. U.S. GAL.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
		T.O. DIST. FT.	LAND. DIST. FT.	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.		RANGE MILES
B-26 B-MA B-2,3&4	24000 28000 32000 35000 36000	- - 3250 4000 4300	2300 2900 3500 -	110 120 130 -	1600 2100 2500 -	35000 15000 10000 5000 S L	20000 15000 10000 5000 281	270 298 291 294 281	300 750 1000 1150 1500	265 600 288 900 265	200 14.0 7.7 3.4 0.0	34000 35500 36000 35000	NONE 1500 2000† 4000	1162 1162 1162 962	950 900 962 550	3.5 3.5 3.4 2.2	- - - -	- - - -	- - - -	- - - -	2000 1950 1900 1250	11.0 10.7 10.5 7.0		
B-26 B-MA -10 TO -20 INCL B-26 C-MO -5 TO -25 INCL	24000 28000 32000 35000 36000 38200	- - 3050 3900 4400 6100	1950 2200 2400 -	134 135 136 -	900 1050 1200 -	37000 15000 10000 5000 S L	20000 15000 10000 5000 270	- 282 278 271 270	- 750 1000 1100 1300	265 600 288 900 265	200 14.0 7.7 3.4 0.0	38200 37800 38200 36300 38100	NONE 1500 1162 2000† 4000	1162 1162 1162 962 962	1125 1000 1000 962 650	5.7 4.2 4.2 -	- - - -	- - - -	- - - -	- - - -	2600 1825 1800 1075	11.7 10.2 10.2 6.0	* MUST BE STRIPPED TO 38200 LB.	
B-26 B-MA -25 TO -55 INCL B-26 C-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 34100 36300 38100	NONE 1500 2000† 4000	1162 962 962 962	1000 650 650 650	4.2 2.6 -	- -	- -	- -	- -	- -	1825 1250 -	10.2 7.0 -	
B-26 F-MA -1, 2 & -6 B-26 G-MA -1	28000 32000 35000 36000 38200	2350 3100 3850 4200 5350	2200 2400 2600 2650 2750	135 135 136 137 -	1050 1200 1300 1350 1100	37000 25000 20000 15000 10000 5000 S L	- - 280 273 282 275	- - -	- -	- -	- -	38000 36200 31200 38200	NONE 1500 1850 1000 4000	1050 875 675 675	4.3 3.6 2.7 2.8	- -	- -	- -	- -	- -	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-211 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-194)  
RC - 36 INTERPHONE AMPLIFIER  
RC - 43B MARKER BEACON

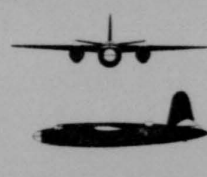
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

† 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 DESIGNATED AT-22A & B.



B-26

"MARAUDER"

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

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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

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DATE 26 June 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 OR STATION	EXTERNAL NO. & SIZE OR CAPACITY		
A-20B-DL	2	WRIGHT R-2600-11 2 SPD. SUPERCH. HAMILTON STD. 11.3" DIA. - 3 BL. P.F. HYDRA-MATIC	T 1600/ S L M 1600/ 3000 C 1350/ 5500 1275/12000	S 61' 1/4" L 48' 0" H 18' 1" T 17' W 165 SQ. ' 1	B 15600 C 22000 R 25000 W 27000 A	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 200 200	TUNNEL - FLEX. L-AR. NACELLES REAR COCKPIT NOSE - FIXED	1-1000 1- 500 L- 250 10- 100	(SEE C) 1-2000T 2- 500 L- 250 1- 100	1000	SCR-27LN SCR-535 MN-26C RC-51 TECHNICAL ORDER 01-1040-1. (1 DEC. 1942) * SOME MODELS ONLY.
A-20C-DO -1 TO -10 INCL.	2	AS ABOVE EXCEPT FOR CHANGE TO R-2600-23 ENGINE	T 1600/ S L M 1600/ 1000 C 1350/ 5000 1275/11500	S 61' 1/4" L 47' 1/2" H 18' 1" T 17' W 165 SQ. ' 1	B 16300 C 23000 R 25200 W 27000 A	4	INBD. WINGS OUTBD. WINGS POS. (BOMB BAY) BOMB BAY (SEE B)	2 x 136 2 x 64 3 x 325 4 - 680 1099 TOT.	1) .30 2) .30 4) .50	500	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	L-500 L-250 L-100	(SEE C) 1-2000 T	2000	AS ABOVE b NO TORPEDO PROVISIONS ON A-20C-1. a FOR ALTERNATE INSTALLATIONS SEE EE-306-A.
A-20G-DO -1 TO -15 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17200 C 24000 R 25200 W 27000 A	3	AS ABOVE	1) .30 1) .50 6) .50	500 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	L-500 L-250 L-100	(SEE C) 1-2000T	2000	SCR-27LN SCR-535A SCR-695A MN-26Y RC-36 RC-32 or 198 TECHNICAL ORDER 01-140 (5 APRIL 1944) * ARMAMENT FOR A-20G-1 IS (2) .50 CAL. FIXED NOSE GUNS OF 350 RDS. EACH & (4) 20MM NOSE CANNON, TYPE M2 OF 60 RDS. EACH; MAJORITY ALLOCATED TO FOREIGN POWER.	
A-20G-DO -20 TO -45 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17700 C 25000 R 26000 W 27000 A	3	INBD. WINGS OUTBD. WINGS POS. (BOMB BAY) DRIP - EXT. (SEE B)	2 x 136 2 x 64 3 x 325 1 x 374 1099 TOT.	1) .30 1) .50 6) .50	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	L-500 L-250 L-100	(SEE C) 1-2000 T L-500 L-500 L-250 L-100 4000	1000	SCR-27LN SCR-535A SCR-695A 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. * SCR-522 INSTALLED ON THE -15'S ONLY.
A-20J-DO -1 TO -20 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17800 C 25000 R 26000 W 27000 A	4	AS ABOVE	1) .30 2) .50 2)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	A S	A B O V E		REFERENCE AS ABOVE * NO PROVISIONS FOR TORPEDO ON A-20J-15. A-20.	

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	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS CARGO MASS.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
T.O. DIST.	LAND. DIST.	T.O. DIST.	LAND. DIST.	AT 10,000 FT.											AT 25,000 FT.	AT 10,000 FT.	AT 25,000 FT.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.
LB.	FT.	FT.	MPH	FT.	FT.	HP	FT./MIN.	MPH	FT./MIN.	MIN.	LB.	LB.	U.S. GAL.	MILES	HOURS	MILES	HOURS	MILES	HOURS	MILES	HOURS				
A-20B-DL	17000	-	2150	98	-	1500	25000	320	370	277	290	22.6	23800	NONE	1060	850	3.3	1150	4.9	1500	7.0	-	-	2100	13.4
A-20C-DO -1 TO -10 INCL.	19000	2800	2700	95	-	1650	20000	303	300	300	775	13.3	21500	NONE	1080	875	3.3	-	-	1500	6.6	-	-	2300	12.0
A-20G-DO -1 TO -15 INCL.	20000	3200	2800	98	-	1750	15000	317	1320	312	1390	8.7	23200	2000	540	350	1.5	-	-	675	3.1	-	-	1000	6.5
A-20G-DO -20 TO -45 INCL.	21000	3600	2900	102	-	1850	10000	319	1750	313	-	5.0	25300	NONE	1060	975	3.5	-	-	1625	7.3	-	-	2000	11.2
A-20J-DO -1 TO -20 INCL.	22000	4000	3000	106	-	1900	5000	303	2125	297	-	2.8	26000	2000	725	625	2.3	-	-	1075	4.5	-	-	1175	6.7
A-20J-DO -1 TO -20 INCL.	24000	4250	-	-	-	1950	10000	317	1500	308	1250	6.1	26000	2000T	725	575	2.3	-	-	975	4.5	-	-	1175	6.7
A-20J-DO -1 TO -20 INCL.	25000	5300	-	-	-	1950	5000	306	1860	301	-	2.6	26000	4000	400	300	1.2	-	-	525	2.3	-	-	650	3.3
A-20J-DO -1 TO -20 INCL.	27000	6500	-	-	-	1700	25000	351	-	249	-	0.0	26000	NONE	1099	900	3.5	-	-	1625	7.3	-	-	2000	11.2
							20000	291	600	295	-	16.7	26000	2000	725	625	2.3	-	-	1075	4.5	-	-	1175	6.7
							15000	311	1135	307	975	10.1	26000	2000T	725	575	2.3	-	-	975	4.5	-	-	1175	6.7
							10000	317	1500	308	1250	6.1	26000	4000	400	300	1.2	-	-	525	2.3	-	-	650	3.3
							5000	306	1860	301	-	2.6	26000	4000	400	300	1.2	-	-	525	2.3	-	-	650	3.3
							S L	302	1800	287	-	0.0													

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.

(B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING BOMB LOAD CAPACITY.

(C) PROVISIONS ONLY, FOR TORPEDO. A-20 SERIES NOT BEING USED FOR TORPEDO MISSIONS AS PER MILITARY REQUIREMENTS POLICY NO. 37 DATED JULY 3, 1943.

RANGE VALUES WITH TORPEDO ARE SHOWN FOR COMPARATIVE REFERENCE.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

T TORPEDO (REPLACES INTERNAL BOMBS WHEN CARRIED)

X EXTERNAL



**A-20**  
"HAVOC"

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


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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 17
CONFIDENTIAL																	AS OF:
																	DATE 26 JUNE 1944
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFGR. MODEL SUPERCHARGER PROP. MFGR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA			B-BASIC C-COMBAT R-REC'D 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.
A-20H-DO -1 TO -10 INCL.	2	WRIGHT R-2600-29 2 SPD. SUPERCH. HAMILTON STD. 11"3" DIA. - 3 BL. E.P. HYDRA-MATIC	T 1700/5. L. M 1700/5200 C 1450/13400 1500/6400 1350/15900	S 61'4" L 62'10" H 18'1" T 17'0" W 165 SQ. FT.	B 17800 C 26000 R 26000 W 27000	3	INDU. WINGS CUTPD. WINGS FUE. (BOMB B.) DRO.P. (EXTERNAL) (SEE B)	2x136 2x 64 3x325 1x374 1099 TOT.	1) 2) .50 6)	400 400 350	TURREL-FLEX. UPPER TURRET NOSE-FIXED	4- 500 4- 250 4- 100	4- 500 4- 250 4- 100	4- 500 4- 500x 1000	SCR-27LM SCR-695A MH-26T RC-36 RC-198	TECHNICAL ORDER 01-LOAP-1 (15 JUNE 1944)  NO TORPEDO PROVISIONS.	
A-20K-DO -1 TO -10 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	4	AS ABOVE	AS ABOVE	1) 2) .50 2)	400 400 350	TURREL-FLEX. UPPER TURRET NOSE-FIXED	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE.  A-20K SAME AS A-20H, EXCEPT FOR BOMBARDIER NOSE.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER			TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER				LONG RANGE			
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB				AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE		ENDUR.	RANGE	ENDUR.	RANGE
A-20H-DO -1 TO -10 INCL.	19000 21000 24000 26000 27000	2750 3500 4810 5600 6250	3750 4060 4625 4940 5125	94 100 108 112	1830 1875 2550 3500 -	2375 2560 3250 -	25000 20000 15000 10000 5000 8.1.	295 315 322 320 305 300	680 1200 1500 1800 2000	307 317 302 299 285	150 100 13.0 11.0 11.0 0.0	26380 26040 26090	NONE 2000 4000	1099 725 400	750 575 340	3.0 2.1 1.1	- - -	- - -	1115 1010 120	6.3 4.1 2.2	- - -	- - -	2000 1055 805	10.7 6.3 2.8	
A-20K-DO -1 TO -10 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	AS ABOVE	

NOTES: (A) CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB. RED FIGURES ARE FUEL BURN; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
 (B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING MILITARY POWER AVAILABLE FOR FIVE MINUTES ONLY.  
 \* EXTERNAL



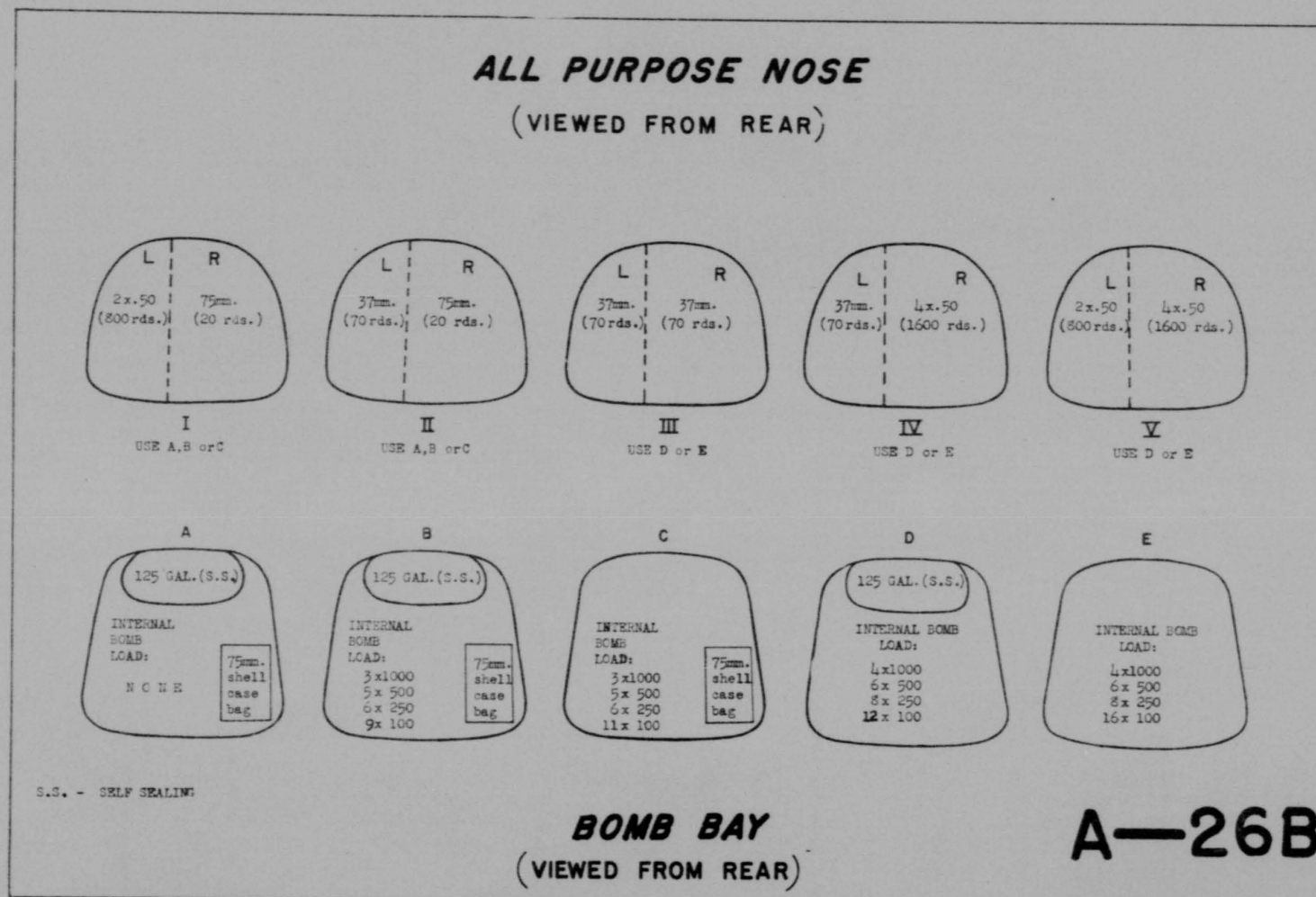
**A-20  
"HAVOC"**

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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 13  
AS OF: DATE 26 June 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
A-26B {DL DT} -1 & -5	2	PRATT-WHITNEY R-2800-27 SINGLE ST.-28PD. HAMILTON STD. 12"7" DIA.-3BL. F.F., HYDRA-MATIC	T 2000/1500 M 1500/13500 C 1500/6500 1150/11000	S 70' L 49'11" H 18'6" T 19'6" W 54'0" SQ.	B 23275 C 35000 R 35500 W 37000	2 or 3 or 0	MAIN - WINGS 2 x 300 AUX. - WINGS 2 x 100 BOMB BAY (SS) 1 x 125 B. BAY (FERRY) 1 x 675 1500 TOT.	1-750M 20 2-.50 500 2-.50 500	20 500 500	*NOSE CAN, 112E1 UPPER TURRET LOWER TURRET	b 4-1000 b 6- 500 b 8- 250 b 16- 100	b 2-2000T L- 500 L- 250 L- 100	L-1000- L- 500x L- 500x b 6000	SCR-274N SCR-995 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-26B-1-DL ONLY. TECHNICAL ORDER 01-104J-1. (10 NOV. 1943) a SEE PAGE OPPOSITE FOR ALL-PURPOSE NOSE INSTALLATIONS.			
A-26B {DL DT} -10 & -15	2	AS ABOVE	AS ABOVE	AS ABOVE	B 22775 C 35000 R 35000 W 37000	2	AS ABOVE	6-.50 400 2-.50 500 2-.50 500	400 500 500	*NOSE CAN, 112E1 UPPER TURRET LOWER TURRET	A S	A B O V E	L- 100 L- 250 L- 100	AS ABOVE	TECHNICAL ORDER 01-104J-1. (10 NOV. 1943) a SEE PAGE OPPOSITE FOR ALL-PURPOSE NOSE INSTALLATIONS.			

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.		RANGE	ENDUR.	RANGE
A-26B {DL DT} -1 & -5	25000 29000 32000 33000 34000 36000	- 2900 3700 4300 4800	- 2950 3400 3950 4500	90 101 109 111 -	1750 2100 2550 2700 -	2000 2150 2250 -	35000	20000 15000 10000 5000 S L	329 341 337 316 325	260 720 1010 1540 2030	326 333 327 319 299	100 520 560 2.7 0.0	31.4 15.3 7.0 2.7 0.0	35000 31400 31400 31600 35000	NONE NONE 3000 4000 SEE (B)	1600 925 925 800 800	- 2.5 2.5 2.2 2.5	- 1160 1030 850 -	- 4.2 4.0 3.4 -	1560 1500 1270 870	6.7 6.9 5.9 -	- - - -	- - - -	3110 1830 1630 1360 1305	16.1 9.5 8.3 6.9 6.3	*STRIPPED TO 35000 LB. FOR FERRYING. NOTE: WHEN 6 EXTERNAL WING PACKAGE GUNS ARE CARRIED HIGH SPEED WILL BE DECREASED APPROX. 13 MPH. AND RATE OF CLIMB 150 FT./MIN.
A-26B {DL DT} -10 & -15							35000																	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.

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

T-TORPELO  
 x-EXTERNAL



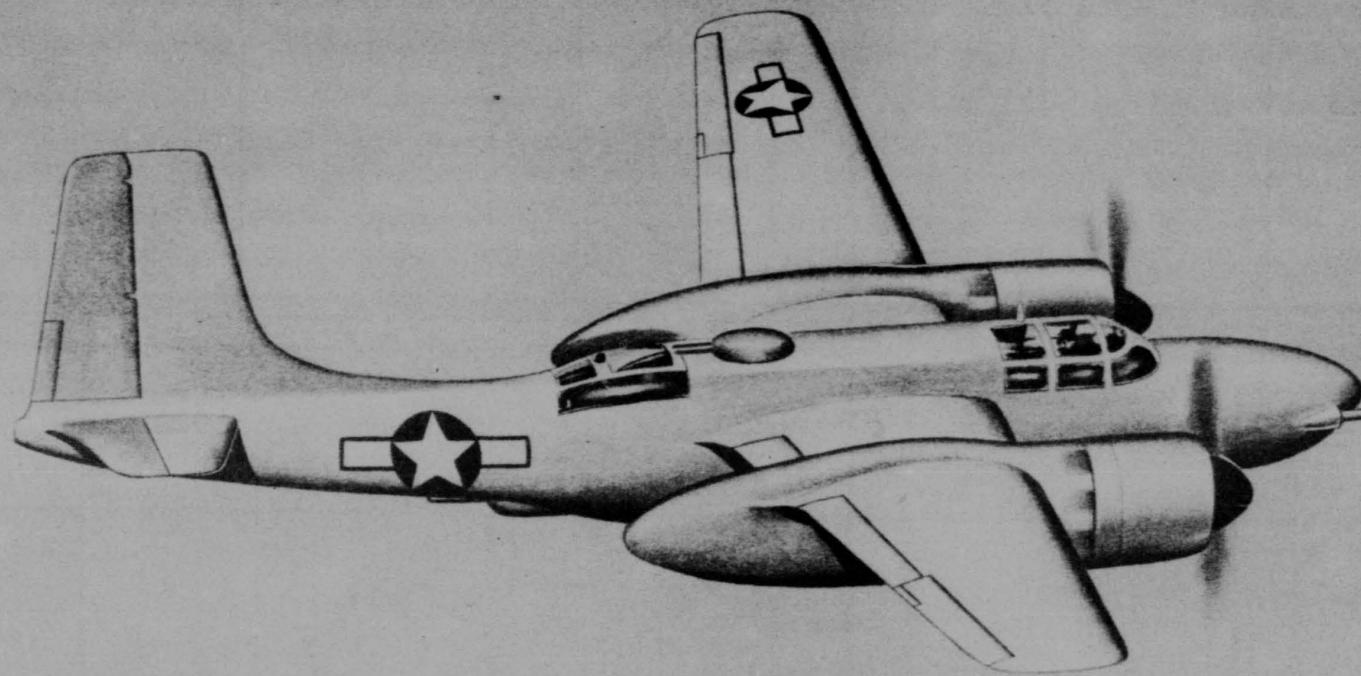
**A-26**  
**"INVADER"**

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**

PAGE 21  
DATE 25 June 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 NO & SIZE OR STATION	EXTERNAL NO & SIZE OR CAPACITY	MAX. LOAD LB.	TYPE	
A-36 A-NA	1	ALLISON P-1710-87 SINGLE SPEED CURTISS 10'9" DIA. - 3 BL. CONST. SPD. ELECT	T 1325/5100 M 1325/5100 C 1100/6600	S 37' 0" L 32' 3" H 12' 2" T 11' 10" W 235 SQ. FT.	B 7100 C 10000 R 10700	1	MAIN - WING EXT. - WINGS	2 x 90 2 x 75 or 2 x 150 180 TOT.	2-.50 4-.50	200 200	NOSE - FIXED WING - FIXED	NONE	2-500 2-250	1000	SCR-271N SCR-535 or SCR-595**	TECHNICAL ORDER 01-60HB-1. ( 10 JULY 1943) ** WAR EMERGENCY RATING. ** LAST 599 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				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'		GROUND-RUN	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
LB	T.O. DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.		LAND. DIST.	WEIGHT	HIGH SPEED	RATE OF CLIMB				HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	ENDUR.	ENDUR.		
	FT.	FT.	MPH	FT.	FT.	LB.	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		
A-36 A-NA	9000 10000 11000	2800 3400 1100	3000 3500 -	- - -	2050 2100 2100	2100 2100 -	20000 15000 10000 5000 S L	288 295 305 310 295	500 1025 1525 2075 2200	277 285 293 293 275	300 # # # #	16.6 9.1 5.1 2.4 0.0	11000 10000 9000 10000	NONE NONE NONE 1000	480 330 180 180	1100 1000 550 500	5.6 3.8 2.0 2.0	- - - -	- - - -	- - - -	- - - -	2100 1500 850 800	10.4 7.7 3.9 3.7	* WITH 2-500 LB. EXTERNAL BOMBS.

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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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.	S-SPAN	L-LENGTH	B-BASIC		TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	TYPE	
		T-TAKE-OFF M-MILITARY C-CONTINUOUS	H-HEIGHT T-TREAD W-WING AREA	R-RECD LIM. W-WAR MAX.	NO. SIZE OR STATION							NO. SIZE OR CAPACITY				
C-46A-CU -1 TO -45 INCL. C-46A-CK -1 & 5	PRATT-WHITNEY R-2800-51 2 SPEED CURTISS 13'6" DIA. - 3BL. E.F. ELECTRIC	T 2000/ S L M 2000/ 1500 C 1600/ 5700 1150/ 13000	S 108'0" L 76'4" H 22'0" T 25'0" W 1360 SQ. FT.	B 32200 C 16000 R 16000	3	WING-PANELS FUSELAGE	6-1100 8 x 100 2200 TOT.	N	0	N E	FORE-BELLY APT-BELLY MAIN-CABIN TROOPS	3700 1800 10000 or 50	15000	SCR-211 259, 271A, 257, 513, 578 & 695 SC-56, 13, 103 & 198 AN-ABS-1	TECHNICAL ORDER 01-251A-1. (15 APR. 1944) EARLY MODELS HAVE HAMILTON STD., 3 BLADE, HYDROMATIC, 15'1" DIA. PROPELLER. MISC. RADIO CARRIED; MAX. COMBINATION SHOWN. NOTE: EARLY MODELS LIMITED TO 40000 LB. GROSS WEIGHT & HAVE SMALL CARGO DOOR.	
C-47-DL C-47A TO -90-DL C-47A TO -25-DK C-53 C&D-DL	PRATT-WHITNEY R-1830-92 INTEGRAL SUPER. HAMILTON STD. 11'7" DIA. - 3BL. E.F. HYDROMATIC	T 1200/ S L M - C 1050/ 7000	S 95'0" L 64'6" H 17'0" T 18'6" W 987 SQ. FT.	B 18000 C 26000 R 29000 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 11000 MAX	6000 NBR 10000 MAX	SCR-211, 269 271A, 287, 522, 578, 595, 695, 605, 613, 103, 198, AN-ABS-1	TECHNICAL ORDER 01-140M-1. (REV. 15 DEC. 1943) MISC. RADIO CARRIED; MAX. COMBINATION SHOWN. (AN/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 ATO -5	WRIGHT R-1820-87 2 SPEED HAMILTON STD. 10'6" DIA. - 3BL. E.F. HYDROMATIC	T 1200/ S L M 1200/ 5700 C 1000/ 2100 900/ 16500	S 65'8" L 46'10" H 12'0" T 15'4" W 551 SQ. FT.	B 13000 C 21500 R 21500 W 35000	3	FRONT-WINGS REAR - WINGS AUX. - CABIN	2 x 150 2 x 172 2 x 134 1016 TOT.	N	0	N E	BELLY CABIN or PARATROOPS	3400 6600 or 15	8500	SCR-211, 269, 271A, 257, 578, 595, SC-56, 13, 103, 198	TECHNICAL ORDER 01-75CE-1. (10 MARCH 1943) MISC. RADIO CARRIED; MAX. COMBINATION SHOWN. EARLY MODELS CARRY SCR-535 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' DIST.		LANDING SPEED MPH	GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER	TAKE OFF WEIGHT LB.	CROSS-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
C-46A-CU -1 TO -45 INCL. C-46A-CK -1 & 5	34000 39000 16000 50000	- 2050 2700 3500	2250 2150 2650 -	82 88 95 -	1200 1100 2000 -	1400 1600 -	16000 15000 10000 5000 S L	20000 15000 10000 5000 S L	257 261 264 262 216	530 780 900 1100 1300	257 264 256 255 210	100 650 750 900 900	28.4 13.6 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	- - - -	2600 1100 1200 1100	12.9 6.7 5.9 5.9	- - - -	2950 1900 1350 1200	15.8 10.0 7.1 6.7
C-47-DL C-47A TO -90-DL C-47A TO -25-DK C-53 C&D-DL	21000 23000 26000 29000	- 1850 2100 3200	2100 2300 2600 -	66 69 73 -	1300 1100 1550 2000	1600 -	20000 15000 10000 5000 S L	20000 15000 10000 5000 S L	NO MILITARY POWER RATINGS	201 217 217 202 187	180 150 720 920 -	37.0 20.0 11.0 5.0 0.0	29000 26000 29000	NONE 2000 6000	1604 1000 804	1500 950 750	7.6 4.7 3.7	ABOVE PRAC- TICAL CRUIS- ING CEILING	2300 1150 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 29000 LB. **5000 LB. CARGO OR 27 TROOPS.
C-60A-LO ATO -5	11000 17500 18500 21500 23000	- 1800 2050 2850 3300	2150 2500 2700 -	61 68 70 -	1700 2100 1150 2200 -	1900 -	20000 15000 10000 5000 S L	20000 15000 10000 5000 S L	259 269 260 255 236	650 1300 1100 1600 1600	255 262 255 217 235	500 1000 1200 3.0 0.0	21500 23000	1150 5000	1016 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); DOUGLAS (Long Beach); "DL" & DOUGLAS (Oklahoma); "DK"; LOCKHEED (Burbank); "LO"

THIS PAGE IS UNCLASSIFIED

**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 23  
DATE 25 June 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
C-54A-DO -1&-5 C-54A-DC -1 TO -15 INCL.	4	PRATT-WHITNEY R-2000-3 or -7 2 SPEED HAMILTON STD. 13'1" DIA. - 3 BL. F.F., HYDROMATIC	T 1290/5 L M 1290/3000 C 1015/9000 240/13200	S 117' 6" L 93' 10" H 27' 6" T 21' 8" W 1160 SQ. FT.	B 37000 C 58000 R 58600 W 76000A	6	INRD. - WINGS OUTRD. - WINGS FUSELAGE	2x 190 2x 110 4x 150 3600 TOT.	N	0	N	E	FORE-BELLY 1800 AFT-BELLY 2100 FORE-CARGO 21000 AFT-CARGO 11900 TROOPS 30 or 50	25000	SCR-211, 269, 271M, 287, 278, 295/695, RC-36, 43, 103, 128.	TECHNICAL ORDER 01-40NM-1. (REV. 10 AUG. 1943) * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. NOTE: 30 TROOPS WITH FUSELAGE TANKS (3742 GAL.) 50 TROOPS WITHOUT FUSELAGE TANKS (1886 GAL.)
C-69-LO	4	PRATT-WHITNEY R-3350-35 SINGLE or 2 SPEED HAMILTON STD. 15'6" DIA. - 3 BL. F.F., HYDROMATIC	T 2200/5 L M 2200/7300 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 92000	9	WINGS WINGS	2x 819 2x 1599 4816 TOT.	N	0	N	E	60 PASS-ENGERS NONE	32000	SCR-271M, (2) 269, 287, 211, RC-43/193, 36 & 103.	TECHNICAL ORDER 01-750J-1. (10 NOV. 1943) * FIRST FEW AIRPLANES EQUIPPED WITH SINGLE SPEED BLOWER.
C-87-CF	4	PRATT-WHITNEY R-1830-13 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.F., HYDROMATIC	T 1200/5 L M 1200/26500 C 1100/27000	S 110' 0" L 66' 1" H 18' 0" T 25' 8" W 1018 SQ. FT.	B 34250 C 56000 R 56000 W 62000	5	INRD. - WINGS OUTRD. - WINGS	12- 236L 6- 150 281L TOT.	1-.50	500	TAIL - FLEX. (ON SOME MODELS ONLY)	CHAIRS OR LITTERS & BENCH	20 or 7 & 11	4400 NCR 10000 MAX.	SCR-271M, 269, 287, 278 & 695, RC-36, RC-43	TECHNICAL ORDER 01-50A-1. (15 DEC. 1943)

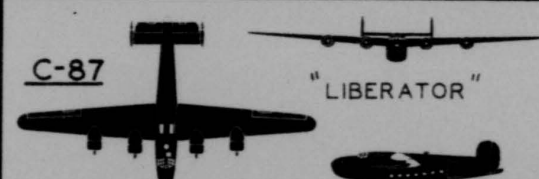
COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.		AT 10000 FT.	AT 25000 FT.		
C-54A-DO -1&-5 C-54A-DC -1 TO -15 INCL.	15000 55000 59000 62500 65000	- 2800 3300 3850 4350	2900 3400 -	80 90 -	1600 1850 2150 2350	1800 2200 -	56000 -	20000 15000 10000 5000 S L	- - - 272 260	- - - 1150 1150	269 278 276 260 215	425 800 1000 1100 1050	21.4 16.0 9.4 4.4 0.0	62500 65000 59000 65000	NONE * 8000 * 8000 * 11000	3600 2700 1800 1800	EXCEEDS SPEED LIMITS	ABOVE PRACTICAL CRUISING CEILING	3100 2500 1600 1550	16.2 12.0 7.7 7.7	ABOVE PRACTICAL CRUISING CEILING	1100 2900 1900 1800	26.0 17.1 11.7 10.2	* 8000 LB. CARGO or 30 TROOPS & 2000 LB. EQUIPMENT. * 11000 LB. CARGO or 50 TROOPS & 4000 LB. EQUIPMENT.			
C-69-LO	58500 62000 67000 75000 82000	- 2050 2500 3100 3750	2650 3150 3400 -	100 105 110 -	1400 1450 1550 -	1100 -	72000 -	20000 15000 10000 5000 S L	- - - 330 314	- - - 2260 2480	- - - 325 307	610 1150 1680 2160 2300	11.0 9.0 5.0 2.0 0.0	82000 75600 82000	NONE 12000 16400	4900 1630 1630	- - - - -	2800 875 850	11.3 3.4 3.4	- - -	4550 1250 1200	23.8 5.9 6.4					
C-87-CF	40000 50000 56000 60000	- 3500 4750 6000	3300 3900 4250 -	90 100 105 -	2800 3300 3250 4200	2800 3300 3550 -	56000 -	30000 25000 20000 15000 10000 5000	302 317 361 287 273	600 1050 1100 1150 1200 1200	295 311 295 282 269	600 850 900 950 1000 4.2	31.0 26.8 20.9 15.3 9.0 4.2	52500 56000 56000 60000	NONE 3100 5800 9800	281L 281L 236L 236L	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 2235 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 TING TANKS FULL.

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



MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO" &amp; (CHICAGO) "DC"; CONSOLIDATED (ST. LOUIS) "CO" &amp; LOCKHEED (BURBANK) "LO"

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**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

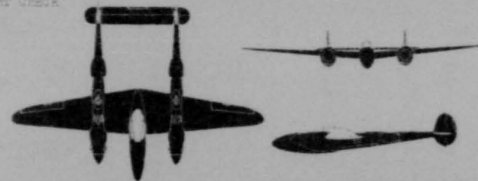
PAGE 24  
AS OF:  
DATE 26 June 1944

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 US GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.	TYPE	
P-38F-LO	2	ALLISON V-1710-16 & -53 TURBO CURTISS 11'6" DIA. - 3BL. F.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	150 500 (MAX.)	HOSE-TYPE M1 HOSE-FIXED	NONE	NONE	SCR-163 or SCR-27LM	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 DRCP.-EXTER.	2 x 90 2 x 60 2 x 75 2 x 150 600 TOT.	AS ABOVE	AS ABOVE	NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-27LM* SCR-515** SCR-522 SCR-525 SCR-535	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY.	
P-38G-LO -1 TO -15 INCL.	2	ALLISON V-1710-51 & -55 TURBO CURTISS 11'6" DIA. - 3BL. F.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 150 900 TOT.	AS ABOVE	AS ABOVE	AS ABOVE EXCEPT LAST 200 P-38G-10'S ONLY ARE SAME AS BELOW	NONE	2-1000 2-1000 2-500 2-325 2-250 2-100	3200	SCR-27LM* SCR-515** SCR-522 SCR-525 SCR-535***	REFERENCE AS ABOVE * LIMITED TO 1150 HP. BECAUSE OF INADEQUATE COOLING. ** PROVISIONS ONLY. *** SPACE ONLY. *** LAST 179 P-38G-10'S ONLY.
P-38H-LO -1 & -5	2	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3BL. F.F., ELECTRIC	T 1425/8 L M 1425/25000 C 1100/25000	AS ABOVE	B 13700 C 15300 R 21000 W -	1	MAIN-WINGS RES.-WINGS DRCP.-EXTER.	2 x 90 2 x 60 2 x 75 2 x 150 900 TOT.	1-20MM. 4-.50	150 500 (MAX.)	HOSE-AN-M2" HOSE - FIXED	NONE	2-1600 2-1000 2-500 2-325 2-250 2-100	3200	SCR-27LM* SCR-515** SCR-522 SCR-525 SCR-535	TECHNICAL ORDER 01-75FF-1. (25 SEPT. 1943) * LIMITED TO 1210 HP. BECAUSE OF INADEQUATE COOLING. ** PROVISIONS ONLY. *** SPACE ONLY.

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		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.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		FT.	FT.		FT.	FT.			FT/MIN.	FT/MIN.	FT/MIN.	FT/MIN.				MIN.	MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS
P-38F-LO	13500 15000 15800	- 2150 2500	2750 2980 3100	85 90 97	- 1280 1360	1150 1580 1800	15300 15900 16500	25000 20000 15000 10000 5000	390 390 365 355 310	2100 2300 2700 2700 2900	380 365 353 340 328	11.0 8.0 6.0 4.0 2.0	15800	NONE	300	400	1.3	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 3500	85 90 91 97 97	- 1280 1360 1530 1800 2100	1150 1580 1800 2000 2300	15300 15900 16500 17000 18000	25000 20000 15000 10000 5000	395 390 376 351 347	2100 2300 2150 2600 2800	380 367 354 340 327	12.0 8.8 6.0 4.0 1.8	19900 18000 15900 17000 18000	NONE NONE NONE 1000 2000	900 600 300 300 300	1375 800 400 385 375	1.3 1.3 1.3 1.3 1.3	425 850 400 395 375	1.3 2.9 1.3 1.3 1.3	700 1100 700 675 625	2.7 6.1 2.7 2.8 2.8	675 2050 665 650 600	2.4 5.4 2.4 2.4 2.3	900 1750 900 850 800	4.5 9.1 4.5 4.3 4.1		
P-38G-LO -1 TO -15 INCL.		AS ABOVE	AS ABOVE	AS ABOVE			15000	25000 20000 15000 10000 5000	400 390 375 360 345	1700 2300 2500 2600 2800	390 377 362 347 335	11.5 8.5 5.9 3.7 1.8				AS ABOVE		AS ABOVE									
P-38H-LO -1 & -5	13600 15500 17500 19500 20500	- 2000 2500 3500 4000	2750 3050 3500 3900 4000	85 93 100 97 97	- 1280 1500 2000 2300 2900	1150 1550 2000 2300 2900	15300 16000 16000 16000 5000	25000 20000 15000 10000 5000	402 397 372 360 345	1700 2300 2500 2600 2800	390 375 360 342 332	11.7 7.6 5.8 3.4 1.7	20500 18300 16500 18300 19500	NONE NONE NONE 1000 3200	900 600 300 300 300	1300 750 350 335 300	1.3 2.0 1.3 1.3 1.3	425 800 375 325 300	1.3 2.0 1.3 1.3 1.3	650 1350 650 575 525	2.7 6.1 2.7 2.8 2.7	650 1700 650 580 525	2.4 5.1 2.4 2.3 2.2	750 1700 750 750 700	4.7 9.5 4.7 4.0 3.4	NO WAR EMERGENCY POWER AVAILABLE BECAUSE OF INADEQUATE COOLING	

NOTES:

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

**P-38**  
"LIGHTNING"

DESIGNED BY LOCKHEED (Burbank) "10"


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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
CONFIDENTIAL																
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 STATION	EXTERNAL NO. & SIZE CAPACITY	MAX. LOAD LB.	TYPE	
P-38J-LO -5 & -10	2	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3BL. P.F., ELECTRIC	T 1125/S.L. M 1125/26500 C 1100/32500	S 52' 0" L 37' 10" H 12' 10" T 16' 6" W 328 SQ. FT.	B 13700 C 16450 R 21000 W -	1	MAIN - WINGS RES. - WINGS DROP. - EXTER.	2x 90 2x 60 2x 75 or 2x 150 or 2x 300 or 2x 100	1-20MM 4-.50 (MAX.)	150 500	NOSE - AN M2C* 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 01-7577-1. (25 SEPT. 1943) * PROVISIONS ONLY. ** SPACE PROVIDED.
P-38J-LO -5 TO -25 INCL. [L.E. TANKS]	2	AS ABOVE	T 1125/S.L. M 1600/26500 C 1100/32500	AS ABOVE	B 14100 C 17600 R 22000 W -	1	MAIN - WINGS RES. - WINGS L.E. - WINGS DROP. - EXTER. (SEE P)	2x 90 2x 60 2x 62 2x 75 or 150 or 165 or 300 or 100, 200	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	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE * THE 2-62 GAL. LEADING EDGE WING TANKS ARE INSTALLED AT FACTORY, MOD. CENTER or FURNISHED TO SERVICE IN KITS. ** WAR EMERGENCY RATING.
P-38L-LO -1	2	ALLISON V-1710-111 & -113 TURBO CURTISS 11'6" DIA. - 3 BL. P.F., ELECTRIC	T 1125/S.L. M 1125/26500 C 1100/32500	AS ABOVE	B AS ABOVE C AS ABOVE R AS ABOVE W AS ABOVE	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	A S A B O V E	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE ** WAR EMERGENCY RATING.
			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				
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		LANDING SPEED MPH	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.		T.O. DIST. FT.	LAND. DIST. FT.		HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.	HIGH SPEED MPH	RATE OF CLIMB FT/MIN.				TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	
P-38J-LO -5 & -10	13700 19500 16500 18500 19600 20500	1650 1900 2100 2750 3400 4350	2750 3050 3200 3550 3750 -	100 105 108 116 121 -	900 1050 1150 1500 1900 2000	1150 1650 1750 1900 2000 -	16450	413 420 408 395 380 363	1870 2665 3190 3550 3820 3960	405 400 392 375 365 350	1550 2500 2875 3050 3250 3425	397 384 365 353 340 321	10.6 8.0 6.2 4.5 2.9 1.6	20950 19050 16450 18450 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 GORE TYPE COOLERS. PERFORMANCE VALUES ARE SHOWN WITHOUT EXTERNAL RACKS.
P-38J-LO -5 TO -25 INCL. [L.E. TANKS]	14000 16000 17600 19600 20800 21700	1700 2000 2400 3400 4800 6500	2800 3150 3400 3750 -	102 109 111 121 -	950 1090 1100 1850 2000 -	1500 1700 1850 2000 -	17600	405 411 403 390 377 360	1685 2415 2925 3265 3525 3670	395 385 365 350 336 320	1350 2200 2650 2850 3000 3200	390 378 359 346 336 317	11.6 8.6 6.7 4.9 3.8 1.6	21700 20300 17600 19600 20800	NONE NONE NONE 2000 3200	1024 754 424 435 424	1050 835 650 625 600	4.2 3.1 1.6 1.6 1.6	1070 900 475 425 410	4.2 3.1 1.6 1.6 1.6	1420 1360 800 710 685	7.7 5.2 3.1 3.0 2.9	1580 1160 840 735 725	7.6 5.1 3.1 2.7 2.7	2260 1910 1175 975 900	13.1 12.0 6.7 5.3 5.3	AS ABOVE
P-38L-LO -1	A S	A B O V E	A B O V E	A S	A B O V E	A S	A B O V E	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	A S	A B O V E	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE		

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



**P-38**  
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Surbank) "10" CONFIDENTIAL

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PAGE 26  
A3 OF:  
DATE 26 June 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 SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.				S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC L-COMBAT 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
			T-TAKE-OFF	M-MILITARY															
P-39D-BE	1	ALLISON V-1710-35 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1150/S L	M 1150/12000	C 1000/10800	1	WING TOTALS 12-120 PROP.-BELLY 1x 75 or 1x156 or 1x175 295 TOT.	4-.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 01-11095-1. (30 JUNE 1943)				
P-39D-BE -1	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	A S	A B O V E	AS ABOVE	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-11095-1. (30 JUNE 1943)				
P-39D-BE -2	1	ALLISON V-1710-65 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/S L	M 1150/12000	C 1000/10800	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	1	ALLISON V-1710-35 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1150/S L	M 1150/12000	C 1000/10800	1	AS ABOVE	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	A S	A B O V E	AS ABOVE	SCR-283	TECHNICAL ORDER 01-11095-1. (30 JUNE 1943)				
P-39K-BE -1	1	ALLISON V-1710-65 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/S L	M 1150/12000	C 1000/10800	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	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-11095-1. (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 FT.		LANDING SPEED MPH	GROUND-RUN		WEIGHT LB.	MIL. POWER		MAX. CONTIN. POWER			TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.		STD. ALT. 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.	AT 10000 FT.	AT 25000 FT.		AT 10000 FT.	AT 25000 FT.		
P-39D-BE	6700 7600 7800 8150 8850	- 2800 3000 3400 4500	1850 2050 2100 2200 -	82 86 88 91 -	1100 1300 1350 1400 -	7650	25000 20000 15000 10000 5000	324 346 360 355 335	750 1350 2000 2150 2550	310 332 343 346 323	11.0 9.1 6.1 3.9 1.9	8850 8800 8150 7650 8150	NONE NONE NONE NONE 500	295 276 195 120 120	550 525 400 275 225	2.2 2.0 1.6 0.9 0.9	- - - 1.7 -	- - - 1.5 -	- - - 1.5 -	1100 1050 800 600 450	6.2 5.9 4.7 2.9 2.6	ALL PERFORMANCE ESTIMATED			
P-39D-BE -1		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-39D-BE -2	6700 7600 7800 8150 8850	- 2500 2700 3000 4200	1850 2050 2100 2200 -	82 86 88 91 -	1100 1300 1350 1400 -		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-39F-BE		SIMILAR TO P-39D					AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-39K-BE -1		SIMILAR TO P-39D-2					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:

RAN IEM 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) "BE"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 27
CONFIDENTIAL																	AS OF: DATE 26 June 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 W-WING AREA	B-BASIC C-COMBAT R-RECD LUM 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.	
P-39L-BE -1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECTR.	T 1325/S L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" W 213 SQ. FT.	B 6500 C 7900 R 9200	1	WING TOTALS 12-120 DROPP.-BELLY 1x75 or 1x156 or 1x175 262 TOT.	2-50	300	WING - FIXED NOSE - FIXED PROP. - TYPE M.	NONE	1-500 1-325 1-250 1-100	500	SCR-274H or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PG-1. (30 JUNE 1943)			
P-39M-BE -1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECTR.	T 1200/S 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 01-110PG-1. (30 JULY 1943)			
P-39N-BE -0 TO -5 INCL.	ALLISON V-1710-85 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	S 34' 0" L 30' 2" H 12' 5" W 213 SQ. FT.	B 6400 C 7600 R 9200	1	WING TOTALS 8-87 DROPP.-BELLY 1x75 or 1x156 or 1x175 262 TOT. SEE REMARKS **	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274H or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PM-1. (10 AUG. 1943) * SCR-695 REPLACES SCR-535A ON P-39N-5 ONLY. ** 1st. 166 P-39M-0 BUILT-IN FUEL 120 GAL. KITS AVAILABLE IN SERVICE TO INCREASE FUEL OF ALL N's TO 120 GAL.			
P-39C-BE -1 TO -15 INCL.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE EXCEPT: BUILT-IN FUEL** P-39C-1.....87 GAL P-39C-5.....110 GAL P-39C-10 & -15-120 GAL	2-50	300	WING - FIXED NOSE - FIXED PROP. - TYPE M.	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274H or SCR-522A & SCR-695	TECHNICAL ORDER 01-110PM-1. (20 AUG. 1943) ** KITS AVAILABLE IN SERVICE TO INCREASE BUILT-IN FUEL OF P-39C-1 & -5 TO 120 GAL.			
P-39Q-BE -20 TO -30 INCL.	ALLISON V-1710-85 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	AS ABOVE	AS ABOVE	1	WING TOTALS 12-120 DROPP.-BELLY 1x75 or 1x156 or 1x175 262 TOT.	2-50	200	NOSE - FIXED PROP. - TYPE M.	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				HIGH SPEED & CLIMB				RANGE & ENDURANCE										REMARKS ON PERFORMANCE					
	HARD SURFACE - NO WIND				AT NORMAL COMBAT WEIGHT				STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE															
	GROSS WEIGHT LB.	TO CLEAR 50' T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.	LAND. DIST. FT.	WEIGHT LB.	STD. ALT. FT.	MIL. POWER M.P.H.	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.	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.		
P-39L-BE -1	7000	-	1950	64	-	1150	25000	323	650	330	11.9	14.9	9100	NONE	295	-	-	-	-	-	-	-	1075	6.0
P-39M-BE -1	7400	2600	2000	66	1750	1200	20000	347	1250	330	12.6	12.8	8400	NONE	195	400	1.6	650	3.5	-	-	-	750	4.2
P-39N-BE -0 TO -5 INCL.	7900	3100	2100	69	2050	1300	15000	360	1900	342	9.5	7.1	7900	NONE	120	350	0.9	425	1.5	525	2.1	-	550	2.5
P-39Q-BE -5	8400	3750	-	-	2500	-	10000	354	2350	341	4.9	4.9	8400	NONE	120	200	0.9	275	1.2	350	1.5	-	400	2.3
P-39Q-BE -10 TO -30 INCL.	8800	5000	-	-	3600	-	5000	335	2900	322	2.1	2.1	8800	NONE	120	200	0.9	275	1.2	350	1.5	-	400	2.3

## NOTES:

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

\* 1000 RES./GUN MAX. FOR GROUND STRAPPING; 300 RES./GUN NORMAL.

## ATTENTION:

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

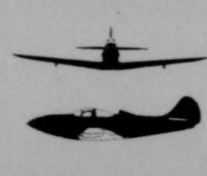
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

\* MILITARY POWER AVAILABLE FOR 15 MINUTES

(A) ARRANGEMENTS ARE BEING MADE TO INSTALL CONVENTIONAL QUADRANT D. 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) "BB"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
CONFIDENTIAL																
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 & RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.	TYPE		
P-40E & E-1 -CU	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECTS	T 1150/SL 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 DROPPING - BELLY	1 x 52 1 x 35 1 x 62 1 x 52 201 TOT.	6-.50 (average)	281	WING - FIXED	NONE	1-500 & 2-100 or 6-20. 1-325 1-250 1-100	700	SCR-283 or SCR-271A	TECHNICAL ORDER 01-25CP-1. (REV. 20 OCT. '43) * NO EXTERNAL WING BOMBS ON EARLY MODELS. * WITHOUT RAM.
P-40F-CU -1 TO -20 INCL.	1	PACKARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECTS	T 1300/SL 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 DROPPING - BELLY	1 x 54 1 x 37 1 x 66 1 x 52.75 150 or 170 327 TOT.	A S	A B O V E	A S	A B O V E	A S	A B O V E	SCR-271A or SCR-522A * SCR-535A or SCR-695	TECHNICAL ORDER 01-25CP-1. (20 JUNE 1943) REVISED * P-40F-1 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE.
P-40K-CU -1 TO -15 INCL.	1	ALLISON V-1710-73 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECTS	T 1325/SL M 1150/11800 C 1000/11000	AS ABOVE	B 6950 C 8400 R 10000 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	AS ABOVE	TECHNICAL ORDER 01-25CK-1. (25 MAY 1943) REV. * P-40K-1 & -5 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE. * WITHOUT RAM.
P-40L-CU -1 TO -20 INCL.	1	PACKARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECTS	T 1300/SL M 1240/11500 C 1080/9500 1010/16000	AS ABOVE	B 7000 C 8500 R 10000 W -	1	REAR - WING FUSELAGE DROPPING - BELLY	1 x 54 1 x 66 1 x 52.75 150 or 170 321 TOT.	4-.50 (average)	201	WING - FIXED	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-25CP-1. (REV. 20 JUNE '43) * P-40L-1 FUEL AND ARMAMENT SAME AS P-40F SERIES.
P-40M-CU -1 TO -10 INCL.	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECTS	T 1200/SL M 1125/11700 C 1000/16400	AS ABOVE	B 6950 C 8400 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE DROPPING - BELLY	1 x 54 1 x 37 1 x 66 1 x 52.75 150 or 170 327 TOT.	6-.50 (average)	281	WING - FIXED	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-25CK-1. (REV. 25 MAY '43)

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		TAKE OFF WEIGHT LB.	BOMBS CARGO P.A.S.S. 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 M.P.H.	RATE OF CLIMB FT./MIN.				HIGH SPEED M.P.H.	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				
P-40E & E-1 -CU	7500 8100 8400 8700 9100	- 2800 3125 3600 4300	1550 1700 1750 - -	84 87 90 - -	950 1050 1100 - -	25000 20000 15000 10000 5000	- 330 362 342 320	- 980 1150 2170 2100	265 300 312 313 296	520 # # # #	18.2 11.5 7.6 4.8 2.4	10000 8700 9200 8850 9500	NONE NONE NONE NONE 700	327 232 209 157 157	- 485 325 300 300	1.7 1.2 - - 1.2	- - - - -	675 525 450 - -	3.0 2.2 2.1 - -	- - - - -	550 650 575 700 600	4.5 3.3 3.1 - -	
P-40F-CU -1 TO -20 INCL.	7500 8450 9200 9350 9550 10000	- 3700 4450 4400 4700 5750	1700 1900 2150 2550 2700 3100	84 - - - -	1050 1250 1300 1350 1400 -	25000 20000 15000 10000 5000	350 364 352 340 320	1000 1400 1660 2210 2160	500 1000 332 320 300	18.3 11.6 7.6 4.5 2.4	10000 9350 9200 8850 9500	NONE NONE NONE NONE 700	327 232 209 157 157	- 550 475 375 305	- 2.0 1.7 1.3 1.3	- 550 575 485 350	2.3 2.0 1.8 1.3	600 700 600 500 600	3.4 3.0 2.2 2.2 2.2	- - - - -	1500 1000 875 700 600	8.0 5.0 4.4 3.1 3.2	
P-40K-CU -1 TO -15 INCL.	7500 8800 9150 9300 9500 10000	- 2950 3150 3200 3350 -	1700 1950 2000 2050 2100 -	81 - - - -	1050 1300 1350 1400 -	25000 20000 15000 10000 5000	330 362 342 320	1100 1650 2000 2100	300 312 313 296	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 -	- - - - -	1400 1000 900 700 600	7.0 5.5 4.8 3.4 3.3		
P-40L-CU -1 TO -20 INCL.	7500 8400 8800 9100 8600 9100	- 3750 4450 4400 4700 5750	1700 1950 2150 2550 2700 3100	81 - - - -	1050 1300 1350 1400 -	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 9300	NONE NONE NONE NONE 700	327 232 157 325 157	650 450 325 300 300	2.5 1.8 1.1 1.1 1.1	- 750 475 375 375	2.9 1.8 1.8 1.8	1200 900 600 475 -	5.6 4.2 2.5 2.3 -	- - - - -	1450 1000 700 575 -	8.4 5.6 3.7 3.3 -	P-40L-1 ONLY SAME AS P-40F SERIES.

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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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE	
	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
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. FT.	B 6400 C 7725 R 11000 W -	1	REAR - WING FUSELAGE DROPPING - 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-27LW 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	B 6700 C 8400 R 11500 W -	1	REAR - WING FRONT-WING FUSELAGE DROPPING - BELLY 1 x 54 1 x 37 1 x 70 1 x 75, 150 222 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-27LW or SCR-522A & SCR-695	REFERENCE AS ABOVE * PROVISIONS FOR 2-225 GAL. FUELING TANKS or 2-500 LB. or 2-100 LB. EXTERNAL WING BOMBS IN ADDITION TO 1-500 LB. BOMBS IN PLACE OF BELLY TANK. SPACE ONLY FOR 6-20 LB. BOMBS	
P-40N-CU -20 THRU -30	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-27LW SCR-522A & SCR-695 MW-26 on some models	REFERENCE AND NOTE AS ABOVE. * FIRST 1272 AIRPLANES OF P-40N-20 SERIES DO NOT HAVE MODIFIER ON AUTOMATIC SPEED-BOOST CONTROL; REMAINDER -20 & ALL -30 INCORPORATE A MANIFOLD PRESS. MODIFIER.	
P-40N-CU -35		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	* 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		

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	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						
P-40N-CU -1	7000 7725 8250 8425 8850	- 2150 2950 3100 3500	1650 1750 1850 -	92 105 -	1000 1100 1100 1150 1950	25000 20000 15000 10000 5000	332 316 318 331 313	1225 1850 2400 2525 2425	313 330 333 315 297	12.4 9.1 6.7 4.1 2.1	8850 8250 7725 8225	NONE NONE NONE 900	292 197 122 122	600 380 230 210	2.2 1.5 0.9 0.9	- 500 290 260	- 2.1 1.2 1.2	1050 760 430 420	4.9 3.6 1.9 2.0	- - - -	1250 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 3600 4150 5700	1650 1850 1850 1900 -	92 100 109 -	1000 1200 1200 1250 -	25000 20000 15000 10000 5000	325 310 313 325 308	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 1.6 1.6	2250 1250 930 600 590	10.9 6.0 4.3 2.8 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																NO RANGE DATA AVAILABLE.	
P-40N-CU -35, -40		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		AS ABOVE	AS ABOVE																	

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**

PAGE 30  
AS OF:  
DATE 26 June 1944

MODEL & BLOCKNO.	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 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.		
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	PRATT-WHITNEY R-2800-21, 59, -63 TURBO CURTISS 12" x 2" DIA. - 4 BL. CONST. SPD. ELECTR.	T 2000/3 L M 2000/27000 C 1625/29000	S 40'9" L 36'1" H 11'2" T 15'6" W 300 sq. ft.	B 10700 C 13500 R 15000	1	MAIN - FIS. 1x270 AUX. - FIS. 1x100 DROPP. BELLY 1x 75 or 110 or 200 EXT. - WINGS & BELLY 1x 75 (SEE F) 680 TOT.	6) 267 WOR. 5) 425 MAX.	WING - FIXED	NONE	b 2-1000 b 3- 500 b 3- 250 b 3- 100	2500	SCR-271M SCR-522A SCR-535A SCR-695	TECHNICAL ORDER 01-2586-1 (REV. 20 NOV. 43) b P-47D-15 & SUBSEQUENT * P-47D-5 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. DROPPABLE BELLY TANK. * THE R-2800-21 ENGINE WILL HAVE WAR EMERGENCY RATING WHEN WATER BOTTLE IS INSTALLED & REESTIMATED (-63). * P-19 & SUBSEQUENT ORIGINAL ALT. SAME AS BELLY.			
P-47D-RE -22	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13" x 0" DIA. - 4 BL. CONST. SPD. HYDRO.	T 2000/3 L M 2000/33000 C 1625/30000	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE			
P-47D-RA -23	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13" x 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	REFERENCE AS ABOVE * FIRST MODEL EQUIPPED WITH BUBBLE CANOPY.			
P-47D-RE -25	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13" x 0" DIA. - 4 BL. CONST. SPD. HYDRO.	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE			
P-47D-RA -26	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13" x 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	REFERENCE AS ABOVE			

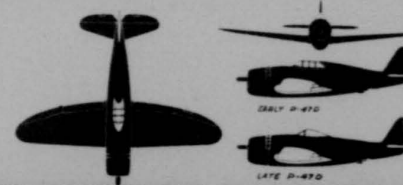
MODEL & BLOCKNO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS						
	GROSS WEIGHT LB.	TO CLEAR 50' DIST.		LANDING SPEED MPH	GROUND-RUN T.O. DIST. FT.	LAND. DIST. FT.	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					
		FT.	FT.					FT.	FT.	FT.	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
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	11000 12500 13500 15000	- 3100 3300 3800	2200 2500 2600 2800	92 100 104 106	1200 2000 2200 2300	1500 1700 1800	17500 15000 10000 5000	433 421 406 390 372 353	1375 1825 2110 2100 2630 2750	120 116 100 368 2630 352	1900 2050 2200 2300 2700 3100	364 375 365 350 335 320	200 15.0 11.0 7.2 4.3 2.2	16200 15600 14900 14300 14100 13500	NONE NONE NONE NONE NONE NONE	680 605 505 415 380 305	900 800 625 585 475 325	3.0 2.6 2.2 1.8 1.8 1.2	950 850 650 550 475 400	3.0 2.6 2.2 1.8 1.6 1.3	- - 1100 - - 650	4.3 - 4.2 4.1 - 2.5	1125 - - - - 650	4.1 - - - - 2.5	1725 1525 1450 1035 945 825	6.5 7.5 5.4 4.9 4.4 2.8	NO RANGE WITH BOMBS AVAILABLE. PERFORMANCE VALUES SHOWN ARE WITHOUT INTERNAL TANKS.
P-47D-RE -22	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE			
P-47D-RA -23	12000 13000 14000 15000 16000 17000	- 3200 3400 3800 4400 5200	2300 2500 2700 2800 3000 3600	98 102 106 106 106 106	1500 2100 2300 2500 2600 3600	1800 1600 1800	13000 25000 20000 15000 10000 5000	426 411 396 383 368 350	1600 2225 2525 2725 2860 3240	1411 1410 395 379 364 342	1960 2050 2265 2465 2570 2770	382 373 365 342 334 319	20.0 10.5 8.1 6.0 3.9 1.9	16900 16100 15100 14300 14600 14000	NONE NONE NONE NONE NONE NONE	715 605 455 415 380 305	900 800 625 585 475 325	3.0 2.6 2.2 1.8 1.8 1.2	950 850 650 550 475 400	3.0 2.6 2.2 1.8 1.6 1.3	- - 1100 - - 650	4.3 - 4.2 4.1 - 2.5	1725 1525 1450 1035 945 825	6.5 7.5 5.4 4.9 4.4 2.8	AS ABOVE		
P-47D-RE -25	12000 13500 15500 16500 17500	- 3300 4100 4700 6000	2300 2600 2700 3300 4100	100 104 105 105 105	1500 2200 2400 2500 3300	1700 1800	13000 25000 20000 15000 10000 5000	429 406 375 375 357	1775 2150 2375 2725 2725	1411 1415 1400 369 354	1960 2125 2125 2415 2415 2425	381 372 362 347 335 319	14.0 11.0 8.5 6.2 4.1 2.0	17500 16700 15400 15100 14600 14000	NONE NONE NONE NONE NONE NONE	780 670 480 445 370	900 800 625 585 475 325	3.0 2.6 2.2 1.8 1.8 1.2	950 850 650 550 475 400	3.0 2.6 2.2 1.8 1.6 1.3	- - 1100 - - 650	4.3 - 4.2 4.1 - 2.5	1725 1525 1450 1035 945 825	6.5 7.5 5.4 4.9 4.4 2.8	AS ABOVE		
P-47D-RA -26	12000 13000 14000 15000 16000 17000	- 3200 3400 3800 4400 5200	2300 2500 2700 2800 3000 3600	98 102 106 106 106 106	1500 2100 2300 2500 2600 3600	1800 1600 1800	13000 25000 20000 15000 10000 5000	426 411 396 383 368 350	1600 2225 2525 2725 2860 3240	1411 1410 395 379 364 342	1960 2050 2265 2465 2570 2770	382 373 365 342 334 319	20.0 10.5 8.1 6.0 3.9 1.9	16900 16100 15100 14300 14600 14000	NONE NONE NONE NONE NONE NONE	715 605 455 415 380 305	900 800 625 585 475 325	3.0 2.6 2.2 1.8 1.8 1.2	950 850 650 550 475 400	3.0 2.6 2.2 1.8 1.6 1.3	- - 1100 - - 650	4.3 - 4.2 4.1 - 2.5	1725 1525 1450 1035 945 825	6.5 7.5 5.4 4.9 4.4 2.8	AS ABOVE		

NOTES: (A) R-2800-21 RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.  
(B) 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-2800-59  
(WATER INJECTION & NEW ELECTRICAL HARNESS)  
USED ON:  
P-47D-RE (-20, -21, -22 & -25)  
P-47D-RA (-20, -21, -23 & -26)

(A) R-2800-62  
(WATER INJECTION)  
USED ON:  
P-47D-RE (-10, -11, -15 & -16)  
P-47D-RA (-11 & -15)  
P-47G-CU (-15 & -16)



**P-47**  
"THUNDERBOLT"

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

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PAGE 33  
AS OF:  
DATE 26 June 1974

### 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	B.H.P./ALT.	S-SPAN	B-BASIC	T-TAKE-OFF		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.	RADIO TYPE		
P-51B-NA -14-5 P-51C-NT -1	PACKARD V-1650-3 2 SPEED- 2 STAGE HAMILTON STD. 11"2" DIA. - 4 BL. CONST. SPD. HYDRO.	T 1100/8 L M 1150/19800 C 1190/31000 1120/20500 940/34000	S 37' 0" L 32' 3" H 13' 8" T 11' 10" W 233 94'	B 7450 C 9200 R 12000	1	1	MAIN-R. WING MAIN-L. WING DROPP. -WINGS SEE (f)	1 x 92 1 x 92 2 x 75 or 2 x 50 184 TOT.	2) 2) 2)	.50	280 350	OUTBD. -WINGS INBD. -WINGS	NONE	2-500 2-325 2-250 2-100	1000	SCR-274N SCR-522 or SCR-535A or SCR-695	TECHNICAL ORDER 01-60JD-1. (20 DEC. 1943) KITS AVAILABLE FOR 1x85 GAL. FUELSAGE TANK; WHEN INSTALL- ED THESE MODELS WILL BE SAME AS ONES LISTED BELOW. WAR EMERGENCY RATINGS: 15005/17000' & 1295/28500' (RE- STRICTED 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	AS ABOVE	1	1	MAIN-R. WING MAIN-L. WING FUELSAGE DROPP. -WINGS	1 x 92 1 x 92 1 x 85 2 x 75 or 2 x 50 569 TOT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-522 or SCR-274N MI-26C COMBINATIO	REFERENCE AS ABOVE NOTE: LAST 550 P-51B-5 MODELS BECOME B-7 UPON ADDITION OF 1x85 GAL. FUELSAGE TANK. P-51C-3 ARE MODIFIED P-51C-1's.	
P-51B-NA -15 P-51C-NT -5&-10	PACKARD V-1650-7 2 SPEED- 2 STAGE HAMILTON STD. 11"2" DIA. - 4 BL. CONST. SPD. HYDRO.	T 1190 / 8 L M 1630/13600 C 1390/27200 1230/17000 1100/25000	AS ABOVE	AS ABOVE	1	1	AS ABOVE SEE (f)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	WAR EMERGENCY RATINGS: 1790/11500' & 1530/21500' (RE- STRICTED TO MODELS EQUIPPED WITH KLG-RC5/3 or LODGE RS5/5 SPARK PLUGS.) SOME P-51C-5-NT MODELS FOR RECONNAISSANCE WILL NOT CARRY 1x85 GAL. FUELSAGE TANK.	
P-51D-NA -5 P-51D-NT -5	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	1	MAIN-R. WING MAIN-L. WING FUELSAGE DROPP. -WINGS	1 x 92 1 x 92 1 x 85 2 x 75 119 TOT.	2) 2) 2) 2)	.50	270 270 380 190	OUTBD. -WINGS CENTER -WINGS INBD. -WINGS ALTERNATE INSTALLATION OUTBD. -WINGS INBD. -WINGS	AS ABOVE	AS ABOVE	SCR-522 or PARTIAL SCR-274N INSTALL.	TECHNICAL ORDER 01-60JE-1.	

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' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		STD. ALT. FT.	WAR EMERG. HIGH SPEED MPH	MIL. POWER CLIMB FT/MIN	MAX. CONTIN. POWER HIGH SPEED MPH	TIME TO CLIMB FT/MIN	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.							
		T.O. FT.	LAND. FT.		T.O. FT.	LAND. FT.									RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				
		FT.	FT.		FT.	FT.									FT.	HOURS	FT.	HOURS	FT.	HOURS	FT.	HOURS		FT.	HOURS	
P-51B & C (V-1650-3)	8000 8500 9000 9500 10000 11000	- 1800 1950 2170 2400 2600	2150 2600 2700 2820 2900	100 103 106 109 111	1550 1650 1750 1850 1950	9200	30000 25000 20000 15000 10000 5000	110 130 127 124 106 88	2000 2650 2700 3275 3380 3280	133 118 127 111 92 74	2000 2325 2650 3025 2900 2780	397 390 405 373 353 335	11.0 8.9 7.0 5.3 3.6 1.8	11200 10200 9200 9700 10200	NONE NONE NONE 500 1000	484 334 184 184 184	1300 875 525 485 475	4.6 3.2 1.7 1.7 1.7	1725 1125 850 600 585	5.6 3.8 2.0 2.0 2.0	1800 1200 750 650 655	7.0 5.0 2.2 2.5 2.6	- - - - -	2250 1575 975 900 825	11.1 8.4 5.2 4.7 4.3	NOTE: HIGH SPEED AND CLIMB SHOWN WITHOUT BOMB RACKS. RACKS DECREASE HIGH SPEED 12 MPH. AND 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	132 145 134 120 119 96	1675 2375 3000 3050 3425 3280	132 118 120 111 92 74	1830 2175 2480 2800 2700 2600	397 390 405 373 353 335	12.1 9.6 7.4 5.6 3.8 1.8	11800 10800 9800 9700 10200	NONE NONE NONE 500 1000	569 334 184 184 184	1175 870 475 460 440	5.1 2.9 1.5 1.5 1.6	1875 1300 850 600 680	4.1 2.7 1.4 1.3 1.4	2000 1300 740 725 680	8.0 5.4 2.7 2.7 2.8	- - 7.4 2.4 -	2290 1460 835 825 770	10.4 6.9 3.8 3.9 3.6	AS ABOVE
P-51B & C (V-1650-3)	8000 9000 9800 10300 10800 11800	- 1950 2300 2530 2800 3350	2150 2700 2900 3100 3250	100 106 111 116 121	1550 1750 1800 1900 2050 2600	9800	30000 25000 20000 15000 10000 5000	110 130 127 124 106 88	2000 2650 2700 3275 3380 3280	133 118 127 111 92 74	2000 2325 2650 3025 2900 2780	397 390 405 373 353 335	12.1 9.6 7.4 5.6 3.8 1.8	11800 10800 9800 9700 10200	NONE NONE NONE 500 1000	569 334 184 184 184	1175 870 475 460 440	5.1 2.9 1.5 1.5 1.6	1875 1300 850 600 680	4.1 2.7 1.4 1.3 1.4	2000 1300 740 725 680	8.0 5.4 2.7 2.7 2.8	- - 7.4 2.4 -	2290 1460 835 825 770	10.4 6.9 3.8 3.9 3.6	AS ABOVE
P-51D (V-1650-7)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10100	30000 25000 20000 15000 10000 5000	129 142 118 118 118	1700 2125 2700 2700 3075	129 113 113 113 113	1830 2175 2480 2800 2700	397 390 405 373 353	12.1 9.6 7.4 5.6 3.8	11100 10100 10600 11100	NONE NONE 500 1000	269 269 269 269	1050 720 685 650	3.7 3.7 2.3 2.3	1125 765 725 700	3.5 2.2 2.2 2.2	1675 1110 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 INCREASE HIGH SPEED 1 M.P.H.

NOTES:

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



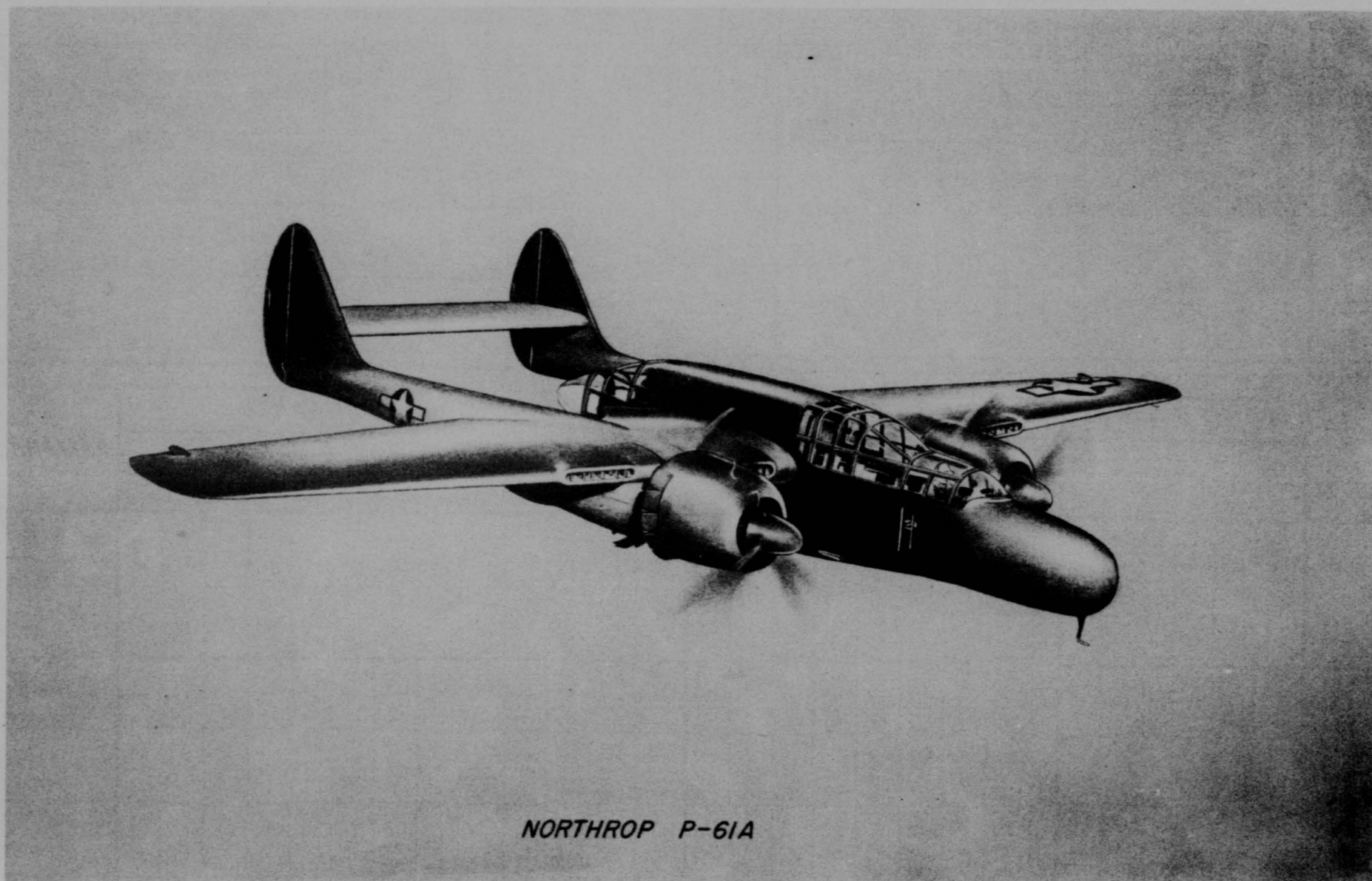
**P-51**  
**"MUSTANG"**

MANUFACTURED BY NORTH AMERICAN (L. GLASSBORO) "NA" & NORTH AMERICAN (DALLAS) "NT"

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NORTHROP P-61A

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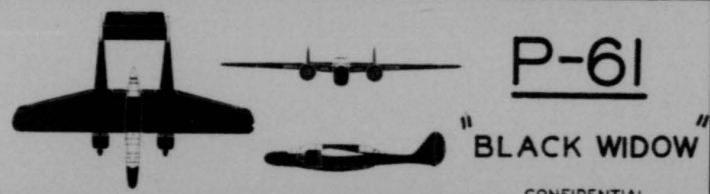
**TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART**

PAGE 35  
DATE: 26 June 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
P-61A-NO -1 & -5	2	PRATT-WHITNEY R-2800-10 2 SPD. - 2 STG. CURTISS 12'2" DIA. - 4 BL. E.P. ELECTRIC	T 2000/2000 M 1800/15600 C 1675/8100 1625/17800 1550/22700	S 66' L 48'11" H 14' 2" T 17' 2" W 664 sq. ft.	B 22500 C 28000 R - W -	2 3 0	INBD.-WING OUTBD.-WING	2 x 115 2 x 200 630 Tot.	4-20mm 4- .50a	200 560	FORE-FUSELAGE UPPER TURRET	N	O	N	E	SCR-522 SCR-625 SCR-720 SCR-729 DETR-436 APN - 1 EC - 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 & -15	2	PRATT-WHITNEY R-2800-65 2 SPD. - 2 STG. CURTISS 12'2" DIA. - 4 BL. E.P. ELECTRIC	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 R W	2	INBD.-WING OUTBD.-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-15 ONLY.

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. DIST.		LANDING SPEED	GROUND-RUN		STD. ALT.	WAR EMERG.		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	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE	ENDUR.		RANGE
P-61A-NO -1 & -5	25000	2250	1950	-	1350	1750	25000	355	900	340	13.0	28000	NONE	630	330	1.2	385	1.4	600	2.5	520	2.4	1000	4.5
P-61A-NO -10 & -15	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	32500	NONE	960	-	-	-	-	-	-	-	-	2000	9.2

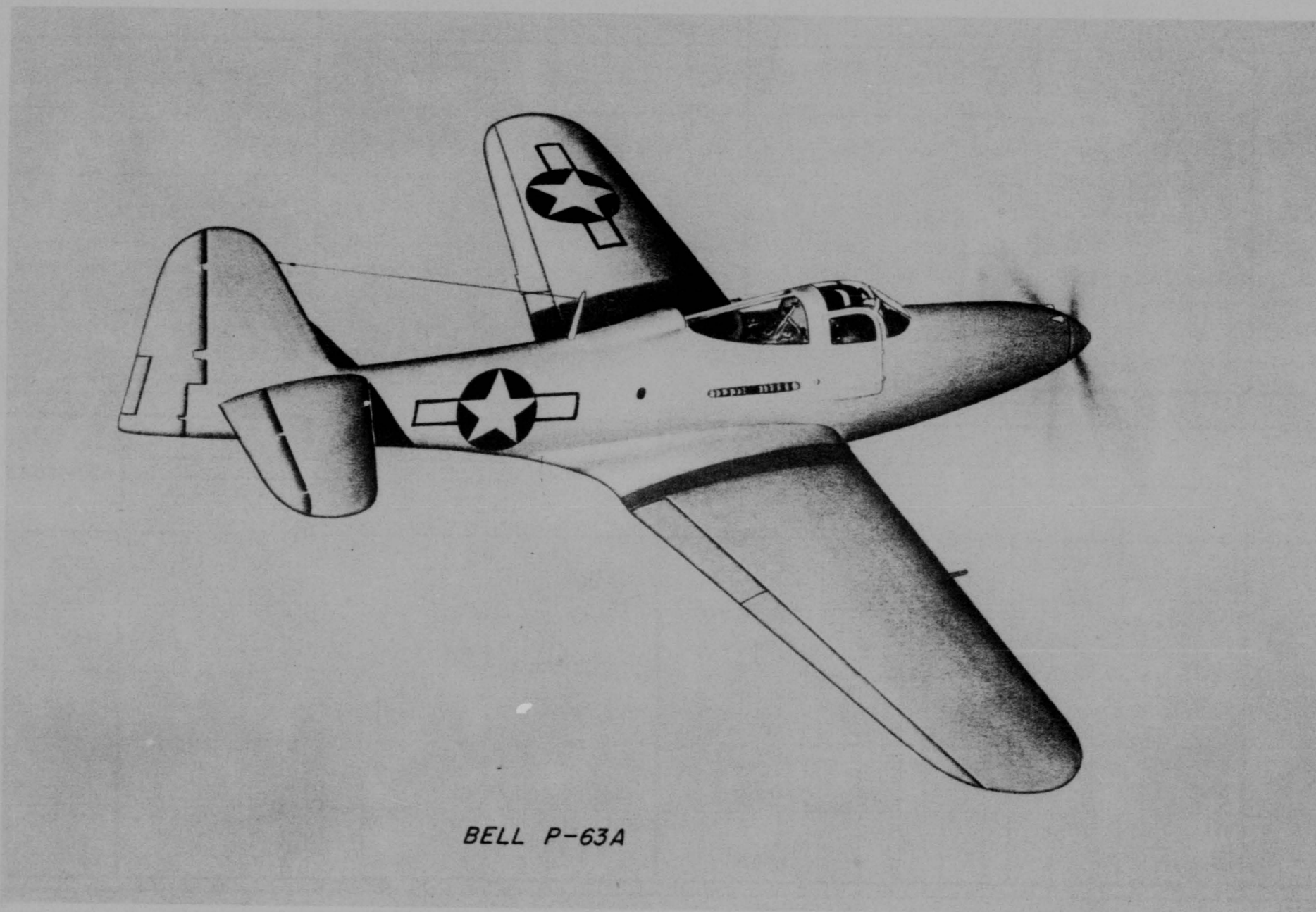
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PAGE 37  
AS OF:  
DATE 25 June 1944

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 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-63A-BE -1 TO -7 INCL.	1	ALLISON V-1710-93 2 STAGE AERO PRODUCTS 11'7" DIA. - 4 BL. CONST. SPD. HYDRO	T 1325/3 L M 1150/24200 W 1500/3 L C 1000/20000	S 38'4" L 32'8" H 12'3" T 14'7" W 248 sq. ft.	B 6925 C 8350 A 8900	1	MAIN - WINGS 2 x 68 DROPP. - BELLY 1x64 (S.S.) or 1 x 75 DROPP. - WINGS 2 x 75 (SEE F) 161 TOT	1-37mm 30 2-.50 250 2-.50 200	30	PROP.-TYPE M4 WING - FIXED NOSE - FIXED	NONE	1-500 1-325 1-250 1-100	500	SCR-271NA SCR-196 or SCR-522 A DETROIT # 436 & SCR-605	TECHNICAL ORDER 01-110FF-1. (20 JULY 1943) 2x75 GAL. SELF SEALING DROPPABLE BELLY TANK AND 2x75 GAL. DROPPABLE WING TANKS ADJUD TO P-63A-6. WAR EMERGENCY RATING.			
P-63A-BE -8-9	1	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	1	A S A B O V E	1-37mm 30 2-.50 250 2-.50 200	30	PROP.-TYPE M4 WING - FIXED NOSE - FIXED	NONE	AS ABOVE	AS ABOVE	AS ABOVE	* TYPE M43 GUN ON -9.			

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' T.O. DIST. FT.		LAND. DIST. FT.		LANDING SPEED MPH	GROUND-RUN T.O. DIST. FT.	LAND. DIST. FT.	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																															
		FT.	FT.	FT.	FT.						FT.	FT.	MPH	FT./MIN.				MPH	FT./MIN.	TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.		AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS																						
P-63A-BE -1 TO -7 INCL. [MILITARY POW.]	7700 8300 8700 9500 10500	1700 2140 2520 2900 4500	1800 -	1070 1320 1520 2000 3100	1140 -	8350	30000 25000 20000 15000 10000 5000	392 401 388 372 373 356	1680 2380 3030 3590 3815 4220	350 365 370 355 335 315	10.1 7.6 5.7 4.2 2.8 1.4	10550 9500 8850 8350 8850	NONE NONE NONE NONE 500	461 311 211 136 136	- 725 500 400 350	- 3.2 2.1 1.3 1.3	- 850 600 425 350	- 3.1 2.1 1.3 1.3	- 1100 700 550 450	- 4.9 3.2 2.1 2.0	- -	- -	2250 1100 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	30000 25000 20000 15000 10000 5000	402 410 398 387 373 356	1730 2350 3030 3590 3815 4220	359 374 379 360 340 320	10.1 7.6 5.7 4.2 2.8 1.4	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							
P-63A-BE -8-9 [MILITARY POW.]	A	S	A	B	O	V	E	8350	30000 25000 20000 15000 10000 5000	402 410 398 387 373 356	1730 2350 3030 3590 3815 4220	359 374 379 360 340 320	10.1 7.6 5.7 4.2 2.8 1.4	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	A	S	A	B	O	V	E
P-63A-BE -8-9 [WAR EMERG.]	A	S	A	B	O	V	E	8350	30000 25000 20000 15000 10000 5000	402 410 398 387 373 356	1730 2350 3030 3590 3815 4220	359 374 379 360 340 320	10.1 7.6 5.7 4.2 2.8 1.4	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	A	S	A	B	O	V	E

NOTES:

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

‡ MILITARY POWER AVAILABLE FOR 15 MINUTES.



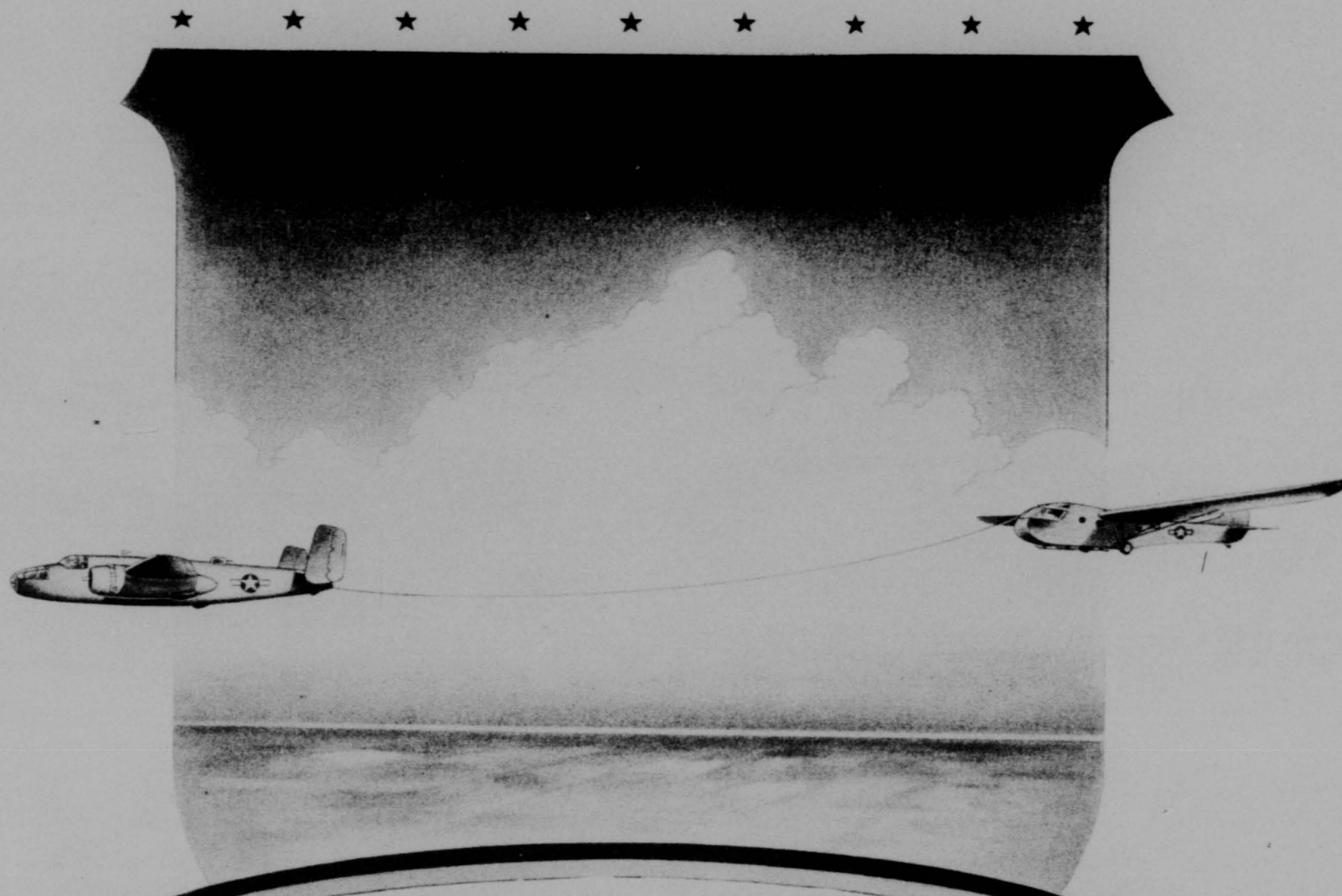
P-63

"KINGCOBRA"

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**GLIDER AND  
TOWPLANE SECTION**

1-JULY-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																				
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			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 SERVCE CEL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS- CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)	MAX. TOW SPEED (M.P.H.)								RADIUS (MI.)	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE	ENDUR.	
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(M.P.H.)	(FT.)	(M.P.H.)	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS.)	(HRS.)	(FT.)	(MI.)	(HRS.)	
C-46A & (1)CG-4A	7500	3800	45000	3000	1400	150	5150	95	3500	125	275	10000	4.7	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	8300	95	5650	120	100	3000	3.0	410	3.6	2.7	1000	530	4.7	AS ABOVE
C-47, 47A & 53 (STD. BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4425	90	3000	120	275	11350	4.4	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	4075	85	2825	105	425	12000*	3.0	610	5.7	4.7	5000	950	9.1	*LIMITED- NO OXYGEN IN GLIDER
	7500	3800	29000	6000	804	150	5625	85	3800	105	350	11800	4.2	570	5.0	4.4	5000	875	7.6	
	7500	3800	31000	8000	804	150	6475	90	4175	105	300	11300	5.3	510	4.1	3.8	5000	740	6.4	
C-47, 47A & 53 (PADDLE BLADE PROPS) & (2)CG-4A	7500	3800	29000	6000	804	150	7250	85	4450	105	125	8000	5.7	395	3.7	3.3	2000	518	4.5	* TO 3000 FT. ALTITUDE
	7500	3800	31000	8000	804	150	8850	90	5550	105	80	-	3.8*	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	12000*	3.7	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	4.8	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	4.0	360	2.8	2.5	5000	540	4.6	
	7500	3800	18500	NONE	644	150	7000	85	4500	120	200	7300	4.1	330	2.9	2.4	5000	475	4.0	

## NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 dated 1 DEC. 1945.  
 (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

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

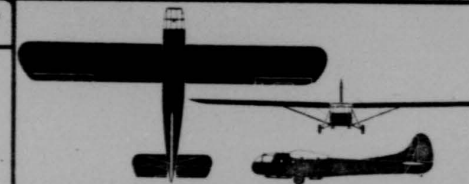
TOW PLANE PERFORMANCE WITH CG-4A TO BE SAME AS WITH CG-1A

## GLIDER CHARACTERISTICS

## WEIGHT

B-BASIC  
 C-COMBAT  
 W-WAR MAX.

B- (3700<sup>50</sup>  
 (4500)  
 C- 7500  
 W- 9000



## SIZE

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

## TYPICAL GLIDER CAPACITIES

- (a) TROOP CARRIER: CREW(2) & TROOPS(13).  
 (b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).  
 (c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RES.)

S- 83'8"  
 L- 48'4"  
 H- 12'7"  
 T- 9'4"  
 W (Tact. gear)  
 852 SQ.

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# TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

AS OF: 26 June 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				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.)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		20
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	10.3	* 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	

COLUMN—

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

**NOTES:**  
 (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 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-17P CAN BE INSTALLED QUICKLY WITH NO STRUCTURAL MODIFICATIONS REQUIRED.  
 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- (3700 to 4500)	<b>TYPICAL GLIDER CAPACITIES</b>	
C- 7500	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	
W- 9000	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	
	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RDS.)	
	S- 83'8"	
	L- 45'4"	
	H- 12'7"	
	T- 9'1/4"	
	W- (Tact. gear) 852 Sq. Ft.	

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