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TACTICAL PLANNING

Characteristics & Performance Chart

BOMBER

31 Dec 43

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CARGO

FIGHTER

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

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TACTICAL PLANNING

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Characteristics & Performance Chart

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MATERIAL COMMAND, WRIGHT FIELD, DAYTON, OHIO

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BOMBERS
31 Dec 43

CARGO

FIGHTERS

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~~CONFIDENTIAL~~FOREWORD

This chart replaces the Monthly Chart of Airplane Characteristics and Performance EB-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 balance 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, ENGINEERING DIVISION

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DEFINITIONSCHARACTERISTICS

SUPERCHARGER: "TURBO" INDICATES EXHAUST DRIVEN TURBINE WITH SINGLE SPEED INTEGRAL DIFFUSER.

BHP/ALT.: BRAKE HORSEPOWER PER ENGINE AND 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 UNLIMITED 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.

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 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: VALUES ARE AT LEAST 125% OF OPTIMUM
(At 3000 ft.)

GROSS WEIGHT: ARBITRARY VALUES FOR REFERENCE ONLY
TO CLEAR 50': DISTANCES REPRESENTATIVE OF MINIMUM AIRPORT REQUIREMENTS.

GROUND RUN: DISTANCES REPRESENTATIVE OF MINIMUM RUNWAY REQUIREMENTS.

LANDING SPEED: PRACTICAL MINIMUM FOR AVERAGE PILOT.

HIGH SPEED & CLIMB: VALUES ARE FOR CLEAN NEW AIRPLANES

MILITARY POWER: FOR LIMITED PERIODS OF COMBAT OPERATION
WAR EMERGENCY POWER: (Performance with War Emergency ratings are shown when applicable)

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. JONT. POWER: HIGH SPEED CRUISING WITH RICH MIXTURE
(For emergency cruising only)

MAX. CRUISE POWER: MAXIMUM UNLIMITED OPERATION WITH LEAN MIXTURE SETTING.

LONG RANGE: PRACTICAL MAXIMUM RANGE FOR PLANNING PURPOSES UNDER ALL CONDITIONS SET FORTH.

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BOEING

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-80 -1 to -27 incl.	1-.30 2-.50 2-.50 2-.50	500 300 400 575 500	a NOSE.....PLEX. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17P-80 -30 to -50 incl.	NONE 1) 2) 2) 2) 2)	NONE 275 300 400 575 500	b RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	AS ABOVE	2-4000 2-2000 2-1600 2-1000	6-1600 2-4000 17600	AS ABOVE
B-17P-80 -55 to -80 incl. & 1st.30 (-85)	2) 1) 2) 2) 2)	300 275 300 400 575 500	AS ABOVE	A S	A B O V E		WING TIP FUEL TANK ON (-80) & SUBSQT.
B-17P-80 Last 70 (-85) to -130 incl.	3) 1) 2) 2) 2)	300 275 300 400 575 500	AS ABOVE	AS ABOVE EXCEPT THAT EXTERNAL BOMB RACKS DELETED AFTER 15th. (-95)			3630
B-17G-80 -1 to -60 incl.	2) 1) 2) 2) 2)	o 400 275 300 400 575 500	CHIN TURRET...A16 RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE (PROV. ONLY)	9600	AS ABOVE

NOTES: a NOSE GUN DELETED AFTER 1st. (-20)
b RADIO COMPARTMENT GUN ADDED AFTER 16th. (-30)
o 2 (50 CAL.) NOSE GUNS BEING AIMED AT MED. CENTERS.

DOUGLAS (LONG BEACH)

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-1L -1 to 1st. 13 (-10) incl.	1-.30 2-.50 2-.50 2-.50	500 300 400 575 500	a NOSE.....PLEX. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17P-1L Last 12 (-10) to (-20) incl.	2) 1) 2) 2) 2)	300 275 300 400 575 500	b RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	AS ABOVE EXCEPT PROVISIONS (only) FOR EXTERNAL BOMB RACKS ON (-20) & SUBSEQUENT			AS ABOVE
B-17P-1L -25 to 1st. 21 (-35) incl.	2) 1) 2) 2) 2)	300 275 300 400 575 500	AS ABOVE	A S	A B O V E		3630
B-17P-1L Last 19 (-35) to (-65) incl.	3) 1) 2) 2) 2)	300 275 300 400 575 500	AS ABOVE	A S	A B O V E		AS ABOVE
B-17G-1L -1 to -40 incl.	2) 1) 2) 2) 2)	o 400 275 300 400 575 500	CHIN TURRET...A16 RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1A L. TURRET...A2 TAIL.....PLEX.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	AS ABOVE

NOTES: a NO NOSE GUN ON 1st. 13 (-10).
b 6-1600 LB. BOMBS ADDED TO (-10) ONLY.
o 2 (50 CAL.) NOSE GUNS BEING AIMED AT MED. CENTERS.

VEGA

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17P-VE -1 to -10 incl.	1-.30 CAL. (300 RIG.) NOSE GUN IN 1st. 7 AIRPLACES. NO NOSE GUN IN NEXT 33 (thru -10). NO RADIO COMP. GUN UNTIL (-15). OTHER ARMAMENT SAME AS BELOW.			2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17P-VE -15 & -20	2) 1) 2) 2) 2)	300 275 300 400 575 500	NOSE.....PLEX. RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1 L. TURRET...A2 TAIL.....PLEX.	AS ABOVE EXCEPT THAT LAST 11 (-20) ONLY HAVE EXTERNAL BOMB RACKS.			AS ABOVE
B-17P-VE -25 & -30	A S	A B O V E	AS ABOVE	2-4000 2-2000 2-1600 2-1000		6-1600 2-4000 17600	WING TIP FUEL TANKS ON (-30) & SUBSEQUENT
B-17P-VE -35 to -50 incl.	3) 1) 2) 2) 2)	300 275 300 400 575 500	AS ABOVE	A S	A B O V E		3630
B-17G-VE -1 to -40 incl.	2) 1) 2) 2) 2)	o 400 275 300 400 575 500	CHIN TURRET...A16 RADIO COMPART. SIDE WAIST-PL. U. TURRET...A1A L. TURRET...A2 TAIL.....PLEX.	AS ABOVE (PROV. ONLY)		AS ABOVE	AS ABOVE

NOTES: a 6-1600 LB. BOMBS ADDED TO (-10) ONLY.
b EXTERNAL BOMB RACKS DELETED ON LAST 11 (-30).
o 2 (50 CAL.) NOSE GUNS BEING AIMED AT MED. CENTERS.

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PAGE 1
AS OF DATE 16 DEC 1943

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	L-LENGTH			T-TAKE-OFF	NO. TANKS & CAPACITY	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE			MAX. LOAD LB.	TYPE (SEE NOTE "A")
B-17E	4	WEIGHT R-1820-65 TURBO HAMILTON STD. 11'7" H.A. - 3 BL. P.P., HYDROMATIC	T 1200/8 L	S 103'10"	B 35000	9	MAIN - WINGS BOMB BAY	6-1730	1-.30	500	NOSE - FLEX. SIDE WAIST-FLEX. UPPER TURRET LOWER TURRET TAIL - FLEX.	2-2000	NONE	4000	STD. 24V AN/ARR-1 RC - 103	TECHNICAL ORDER 01-208P-1. (REV. 7/15/43)	
B-17F	4	WEIGHT R-1820-97 TURBO HAMILTON STD. 11'7" H.A. - 3 BL. P.P., HYDROMATIC	T AS ABOVE	S 103'10"	B 36000	9	MAIN - WINGS BOMB BAY	6-1730	2-.50	300	NOSE - FLEX. SIDE WAIST-FLEX. RADIO COMPART. UPPER TURRET LOWER TURRET TAIL - FLEX.	2-2000	2-4000	6-1600	STD. 24V	TECHNICAL ORDER 01-208P-1. (1 OCT. 1943) * EARLY MODELS HAD SAME ARMAMENT AS B-17E AND NO EXTERNAL BOMB RACKS; THESE PROGRESSIVE CHANGES WERE MADE. CURRENT PRODUCTION ARTICLES ARE SHOWN. CERTAIN BLOCK NUMBERS ONLY HAVE INSTALLATIONS FOR EXTERNAL BOMBS.	
B-17F (WITH WING TIP TANKS)	4	AS ABOVE	AS ABOVE	S 103'10"	B 38000	9	MAIN - WINGS WING TIPS BOMB BAY	6-1730	2-.50	300	NOSE - FLEX. SIDE WAIST-FLEX. RADIO COMPART. UPPER TURRET LOWER TURRET TAIL - FLEX.	AS ABOVE	NONE	9600	AS ABOVE	TECHNICAL ORDER 01-208P-1. (1 OCT. 1943) * A FEW B-17F'S WITH WING TIP TANKS HAD PROVISIONS FOR EXTERNAL BOMBS.	
B-17G	4	AS ABOVE	AS ABOVE	S 103'10"	B 39000	9	AS ABOVE EXCEPT PROVISIONS FOR 2 - 440 GAL. BOMB BAY TANKS.	6-1730	2-.50	300	NOSE - FLEX. SIDE WAIST-FLEX. RADIO COMPART. UPPER TURRET LOWER TURRET TAIL - FLEX.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-208P-1. (1 OCT. 1943) * 2 (50 GAL.) NOSE GUNS BEING INSTALLED AT MOD. CENTERS IN ADDITION TO CHIN TURRET. ** PROVISIONS FOR EXTERNAL WING RACKS ONLY. * LIMITED TO 64,000 LB. BY FLYING CHARACTERISTICS.	

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	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		FT.	HIGH SPEED	RATE OF CLIMB	HIGH SPEED				RATE OF CLIMB	TIME TO CLIMB	RANGE	ENDUR.	RANGE	ENDUR.		RANGE	ENDUR.	RANGE	ENDUR.
B-17E		SUBSTANTIALLY SAME AS B-17F																							
B-17F	40000	-	3900	90	-	2000	30000	297	500	285	150	61.0	55500	NONE	2520	1250	5.5	1350	5.6	1850	9.0	1900	8.7	2750	16.0
B-17F (WITH WING TIP TANKS)	50000	-	4750	100	-	2700	25000	290	650	280	300	111.5	59500	NONE	1730	850	3.8	900	3.8	1250	6.1	1300	5.9	1900	12.7
B-17G	55000	3950	5200	104	3050	3050	15000	280	950	263	600	18.0	53500	4000	1730	850	3.8	900	3.7	1250	6.1	1250	5.7	1800	11.7

NOTES: (A) 24 VOLT RADIO SYSTEM

SCR-211	FREQUENCY METER	RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK
SCR-259B	RADIO COMPASS	* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY
SCR-271A	COMMAND SET (OR SCR-522)	(B) MAXIMUM FERRY RANGE (3500 MI.) MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS HOT IN BETTER THAN AVERAGE CONDITION; OIL CONSUMPTION 3 QT. TO 3 GAL./HOUR DEPENDING ON TIME SINCE OVERHAUL.
SCR-287A	LIAISON SET	
SCR-525	RECEIVER (OR SCR-595 OR SCR-695)	
SCR-578	EMERGENCY TRANSMITTER	
RC-103	BLIND LANDING (PROVISIONS ONLY)	
RC-32	FILTER EQUIPMENT (OR RC-198)	
RC-36	INTERPHONE AMPLIFIER	
RC-43B	MARKER BEACON	

B-17
"FLYING FORTRESS"

MANUFACTURED BY BOEING - DOUGLAS - VEGA

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MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24D-00 0 to 1st. 94 (-15) incl.	1) 200 2) .50 2) 400	200 400 400	NOSE.....PLEX. U. TURRET...A3B TAIL TURRET...A6	4-2000 6-1000 12- 500 12- 250 20- 100	NONE	8000	2564
B-24D-00 last 36 (-15) & (-20)	1) 200 2) .50 2) 400	200 400 400	NOSE.....PLEX. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	A S	A B O V E		3614
B-24D-00 -25 to 1st. 26 (-110) incl.	3) 100 2) 250 2) .50 1) 100 2) 400	100 250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	4-2000 6-1600 6-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24D-00 last 9 (-110) to (-170) incl.	3) 100 2) 250 2) .50 1) 100 2) 400	100 250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6	A S	A B O V E		AS ABOVE
B-24D-00 -1 to -110 incl.	2) 400 2) 250 2) .50 2) 400	400 250 400 400	NOSE TURRET...A6A SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6A	A S	A B O V E		AS ABOVE

NOTES: * 6-1600 LB. BOMBS NOT IN (-25) ONLY.

CONSOLIDATED (FT. WORTH)

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24D-CF -1 & -5	3) 250 2) .50 1) 100 2) 400	250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	4-2000 6-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24D-CF -10 to -20 incl.	A S	A B O V E				12800	AS ABOVE
B-24D-CF -1 to -15 & SUBS B-24E or E-CF NOT ASSIGNED YET	2) 400 2) .50 2) 400 2) 400	400 400 400 400	NOSE TURRET...A6A SIDE WAIST...PL. U. TURRET...A3B L. TURRET...A13 TAIL TURRET...A6	* A S	A B O V E		AS ABOVE
B-24E-CF -10 to -25 incl.	3) 250 2) .50 1) 100 2) 400	250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	* A S	A B O V E		AS ABOVE
B-24E-CF -1 to -10	2) 400 2) 250 2) .50 2) 400	400 250 400 400	NOSE TURRET...A15 SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6A	* A S	A B O V E		AS ABOVE

NOTES: * SUBSEQUENT B-24's, E's & H's HAVE B-10 BRACKLES PER 6-1600 LB. BOMB STARTING ON 2101st. WWD BROCK-1000 SET.

DOUGLAS (TULSA)

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24E-IT (-1)	1) 200 2) .50 2) 400	200 400 400	NOSE.....PLEX. U. TURRET...A3B TAIL TURRET...A6	4-2000 6-1600 6-1000 12- 500 12- 250 20- 100	NONE	12800	2814
B-24E-IT -10 to -25 incl.	3) 100 2) 250 2) .50 1) 100 2) 400	100 250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3C TUNNEL...PLEX. TAIL TURRET...A6	A S	A B O V E		3614
B-24E-IE -1 to -10 & SUBS	2) 400 2) 250 2) .50 2) 400	400 250 400 400	NOSE TURRET...A15 SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6A	A S	A B O V E		AS ABOVE

NOTES: * B-10 BRACKLES PER 6-1600 LB. BOMB STARTS ON 2101st. WWD BROCK-1000 SET.

FORD

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24E-MO (-1)	1) 400 2) .50 2) 400	400 400 400	NOSE.....PLEX. U. TURRET...A3B TAIL TURRET...A6	4-2000 6-1600 6-1000 12- 500 12- 250 20- 100	NONE	12800	2564
B-24E-MO (-5)	1) 400 2) 250 2) .50 1) 100 2) 400	400 250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	A S	A B O V E		AS ABOVE
B-24E-MO -10 to -25 incl.	3) 100 2) 250 2) .50 1) 100 2) 400	100 250 400 100 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3B TUNNEL...PLEX. TAIL TURRET...A6	A S	A B O V E		3614
B-24E-MO -1 to -10	2) 400 2) 250 2) .50 2) 400	400 250 400 400	NOSE TURRET...A15 SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6A	A S	A B O V E		AS ABOVE

NOTES: * B-10 BRACKLES PER 6-1600 LB. BOMB STARTS ON 2101st. WWD BROCK-1000 SET.

NORTH AMERICAN (DALLAS)

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24E-ST (0)	3) 250 TOT 2) 250 2) .50 2) 400 2) 400	250 250 400 400 400	NOSE.....PLEX. SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6	4-2000 6-1600 12- 500 12- 250 20- 100	NONE	8000	3614
B-24E-ST -1 & -5	2) 400 2) 250 2) .50 2) 400 2) 400	400 250 400 400 400	NOSE TURRET...A15 SIDE WAIST...PL. U. TURRET...A3C L. TURRET...A13 TAIL TURRET...A6	A S	A B O V E		AS ABOVE
B-24E-ST -10 to -20 incl.	A S	A B O V E				12800	AS ABOVE

NOTES: * LOWER BALL TURRET ON 5th. & SUBSEQUENT NO TUNNEL PER ON 1st. & ARTICLES.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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PAGE 2																
AS OF: DATE 23 DEC 1943																
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 (SEE NOTE) "A"
B-24 D & E	4	PRATT-WHITNEY R-1830-43 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. P. P., HYDROMATIC	T 1200/5 L M 1200/25000 C 1100/25000	S 110'0" L 66'4" H 18'0" T 25'18" W 104'8" SQ.	B 34500 C 56000 R 56000 W 64000 a	8	MAIN - WINGS	12- 2364	3 2 2 1 2	100 250 400 100 400	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET TUNNEL - FLEX. TAIL TURRET	4-2000 8-1500 8-1000 12- 500 12- 250 20- 100	NONE	12800	STD. 24V *AN/ARR-1 *RC - 105	TECHNICAL ORDER 01-580-1. * INSTALLED IN SOME MODELS.
B-24 D & E	4	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	8	MAIN - WINGS BOMB BAY	12- 2364 2x 400 3164 TOT.	3 2 2 2 2	100 250 400 400 400	NOSE - FLEX. SIDE WAIST-PL. UPPER TURRET LOWER BALL TR TAIL TURRET	A S	A B O V E	AS ABOVE	A S A B O V E	
B-24 D & E (WITH WING TIP TANKS)	4	AS ABOVE EXCEPT R-1830-65 ENGINE IN LIEU OF -43 OR B-24D-135 to -150 incl. (OO)	AS ABOVE	AS ABOVE	AS ABOVE	8	MAIN - WINGS BOMB BAY WING TIPS	12- 2364 2x 400 2x 225 3614 TOT.	A S	A B O V E	A S	A B O V E	AS ABOVE	AS ABOVE	A S A B O V E	
B-24 G, H & J	4	AS ABOVE EXCEPT R-1830-65 ENGINE IN LIEU OF -43 OR B-24D-5 to -20 incl. (NT) & B-24H-5 (CP)	AS ABOVE	AS ABOVE	AS ABOVE	8	AS ABOVE (SEE NOTE C)	AS ABOVE	2 2 2 2 2	100 250 400 400 400	NOSE TURRET SIDE WAIST-PL. UPPER TURRET LOWER BALL TR TAIL TURRET	A S	A B O V E	AS ABOVE	A S A B O V E * FEW EXTERNAL BOMB RACKS BEING INSTALLED AT MOD. CENTERS * LIMITED TO 64000 LB. BY FLYING CHARACTERISTICS.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE						REMARKS ON PERFORMANCE							
	TO CLEAR 50		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		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.					
B-24 D & E	40000	-	1300	90	-	3000	303	1050	277	850	25.8	53000	NONE	2364	900	4.0	1000	3.9	1850	9.5	1950	8.9	2350	15.0		
B-24 D & E	54000	4250	1300	108	3250	3000	290	1100	284	900	25.8	53000	NONE	2364	900	4.0	1000	3.9	1850	9.5	1950	8.9	2350	15.0		
B-24 D & E	56000	4750	1300	108	3250	3000	277	1150	272	950	14.3	58000	5000	2364	850	3.8	950	3.7	1700	8.8	1800	8.2	2200	14.2		
B-24 D & E	59000	5600	-	-	3850	3000	252	1200	246	1000	4.2	58000	5000	2364	850	3.8	950	3.7	1700	8.8	1800	8.2	2200	14.2		
B-24 D & E (WITH WING TIP TANKS)	40000	-	1300	90	-	3000	303	1050	277	850	25.8	63500	NONE	3614	-	-	-	-	-	-	-	-	-	-	-	(C) MAX. FERRY RANGE (35000 WT) MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION: OIL CONSUMPTION 3QT. TO 3 GAL. PER HOUR DEPENDING ON TIME SINCE OVERHAUL.
B-24 D & E	54000	4250	1300	108	3250	3000	290	1100	284	900	25.8	60500	NONE	3164	1200	5.1	1300	5.1	2400	12.1	2500	11.5	3100	20.3		
B-24 D & E	59000	5600	-	-	3850	3000	277	1150	272	950	14.3	61000	3000	2814	1050	4.6	1150	4.6	2050	10.9	2200	10.4	2700	18.4		
B-24 D & E	60000	6000	-	-	4200	3000	252	1200	246	1000	4.2	60000	5000	2364	850	3.8	950	3.7	1700	8.8	1800	8.2	2200	14.2		
B-24 G, H & J	40000	-	1300	90	-	3000	303	1050	277	850	25.8	63500	NONE	3614	-	-	-	-	-	-	-	-	-	-		
B-24 G, H & J	54000	4250	1300	108	3250	3000	290	1100	284	900	25.8	60500	NONE	3164	1200	5.1	1300	5.1	2400	12.1	2500	11.5	3100	20.3		
B-24 G, H & J	56000	4750	1300	108	3250	3000	277	1150	272	950	14.3	61000	3000	2814	1050	4.6	1150	4.6	2050	10.9	2200	10.4	2700	18.4		
B-24 G, H & J	59000	5600	-	-	3850	3000	252	1200	246	1000	4.2	60000	5000	2364	850	3.8	950	3.7	1700	8.8	1800	8.2	2200	14.2		
B-24 G, H & J	64000	7350	-	-	5000	3000	228	1250	222	1050	1.1	64000	5000	2364	850	3.8	950	3.7	1700	8.8	1800	8.2	2200	14.2		

- NOTES: (A) 24 VOLT RADIO SYSTEM
- SCR-211 FREQUENCY METER
 - SCR-2699 RADIO COMPASS
 - SCR-271N COMMAND SET (or SCR-522)
 - SCR-287A LIAISON SET
 - SCR-525 RECEIVER (or SCR-995 or SCR-695)
 - SCR-578 EMERGENCY TRANSMITTER
 - RC - 103 BLIND LANDING (Provisions only)
 - RC - 32 FILTER EQUIPMENT (or RC-198)
 - RC - 36 INTERPHONE AMPLIFIER
 - RC - L3B MARKER BEACON

SEE FIGURES AND PERFORMANCE SUBJECT TO REVISION AFTER FLIGHT CHECK
 * MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY
 (C) A FEW ARTICLES ARE INSTALLED WITH 1 (400 GAL.)
 BOMB BAY TANK ONLY AND 3 BOMB RACKS.



B-24
"LIBERATOR"

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AS OF:
DATE 20 DEC 1943

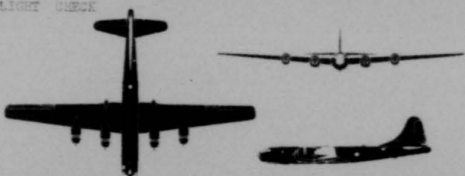
TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.			SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH 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	
B-29-BW -1 & -5	4	WEIGHT R-3350-23 TURBO HAMILTON STD. 16" DIA. -14L. F.F. HYDRA-MATIC	T 2200/3 L M 2200/25000 C 2000/25000	S 111'3" L 99'9" H 27'9" T 31'6" W 1739 SQ'	B 71000 C 105000 R 120000 W - **	10	OUTBL. -WINGS INBL. -WINGS BOMB BAY	11-2735 8-2873 4x 640 8168 TOT.	1-20MM 2 2 2 2 2	500 500 500 500 1000	TAIL-DR. TYPE-B UPPER REAR THR UPPER REAR THR LOWER REAR THR LOWER REAR THR TAIL TURRET	1-4000 5-2000 12-1500 12-1000 40-500 50-250 80-100	NONE	20000 ***	SCR-211, 2690, 271A, 287A, 578, & 695A. RC-36, 128 & RC-123	TECHNICAL ORDER 01-2051-1. * MAX. PROVISIONS 100 BOUNDS. * PROVISIONS ON B-29-5 only * OUTBOARD TREAD - 31'6"; INBOARD TREAD - 25'6". ** DUE TO INCREASE OF ORIGINALLY PLANNED BASIC WEIGHT, COMBAT & RECOMMENDED WT. ARE BEING INCREASED. NO DATA *** WITH PARTIALLY FILLED MAIN FUEL TANKS 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											

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE						REMARKS ON PERFORMANCE								
	TO CLEAR 50		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE									
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE AT 10000 FT.	ENDUR. AT 10000 FT.	RANGE AT 25000 FT.	ENDUR. AT 25000 FT.		RANGE AT 10000 FT.	ENDUR. AT 10000 FT.	RANGE AT 10000 FT.	ENDUR. AT 10000 FT.				
B-29-BW -1 & -5	90000 105000 120000	3150 4500 6100	3500 4100 -	100 110 120	2200 3150 1300	4500 3000 -	105000	30000 25000 20000 15000 10000 5000	375 360 345 330 317 303	520 740 900 1040 1160 1250	360 317 334 320 307 273	340 550 715 850 970 1060	14.0 29.0 21.0 15.0 10.0 5.0	(SEE NOTE A) 120000 120000	NONE 9000 5608	6888 5608	1800 1500	6.8 5.5	2000 1600	6.8 5.5	3500 2800	15.2 12.2	2900 2200	10.9 8.1	1200 3500	21.9 16.9	* MOST OF FLIGHT REQUIRES THAT MAX. CRUISE POWER BE EXCEEDED SLIGHTLY BY USING AUTO-RICH MIXTURE.

NOTES: "A" INCREASE IN BASIC WEIGHT PROHIBITS USE OF MORE THAN 2 OF THE 4 BOMB BAY TANKS OR MORE THAN 9000 LB. BOMBS WITH FULL MAIN FUEL WITHOUT EXCEEDING RECOMMENDED LIMIT OF 120000 LB. GROSS WT.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK



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NORTH AMERICAN (INGLEWOOD ~ KANSAS CITY)

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO. GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-25C & D-NA (C & D)	1-.30 2-.50 2-.50	600 200 200	NOSE.....FLEX U. TURRET...A11 L. TURRET...A5	1-2000 2-1000 6- 500 8- 250 12- 100	NONE	3000	a 1255
B-25C-NA -1 to -20 incl.	1) 1) .50 2)	300 300 200	NOSE.....FLEX NOSE.....FIXED U. TURRET...A11 & 9	1-2000 3-1000 6- 500 8- 250 12- 100	1-2000 T c 6- 325	3-1000 x 8- 250	(B-25C) 1559 1641
B-25D-NA -1 to -15 incl.	2)	200	L. TURRET...A5 & 10	8- 250 12- 100	8- 250 8- 100	5000	(B-25D)
B-25C-NA (-25) B-25D-NA & NG -20 to -35 incl.	AS ABOVE EXCEPT NO LOWER TURRET ON 210 (D-20), D-25, D-30 & D-35.			1-2000 2-1600 3-1000 6- 500 8- 250 12- 100	AS ABOVE	2-1600 x 8- 250 5200	(B-25C) 1521 1649 (B-25D)
B-25G-NA -1 to -10 incl.	1-75MM 2-.50 2-.50 2-.50	21 400 200 200	NOSE...M4(M6) NOSE.....FIXED U. TURRET...A9 L. TURRET...A10	A S	A B O V E		1649
B-25H-NA -1 to -10 incl.	1-75MM 4-.50 4-.50 2-.50 2-.50 2-.50	21 400 400 200 200 500	NOSE.....T13R1 NOSE.....FIXED e NOSE...PACKAGE U. TURRET...A9B SIDE WAIST-FL. TAIL.....FLEX.	AS ABOVE	NONE	3200	1621

NOTES: * B-25C-1 & D-1 ARMAMENT SAME AS B-25C & D. c NOT ON 1st. 157(G-1).
 x EXTERNAL a LAST 102(B-25C) FUEL SAME AS B-25C-1. d NO LOWER TURRET ON 78(G-5) & -10.
 T TORPEDO b LOWER TURRET NOT ON 80 (D-15) ONLY. e B-25H-1 HAS 2 PACKAGE GUNS INSTEAD 1

NORTH AMERICAN (KANSAS CITY)

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO. GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	
B-25J-NG -1 & SUBSEQUENT	4) 1) 1) .50 2) 2)	400 300 300 200 600	NOSE...PACKAGE NOSE.....FLEX. NOSE.....FIXED SIDE WAIST-FL. U. TURRET...A9B TAIL.....FLEX.	1-2000 2-1600 3-1000 6- 500 8- 250 8- 100	1-2000 T 6- 325 8- 250 8- 100	2-1600 x 8- 250 5200	1621

NOTES: T TORPEDO
 x EXTERNAL

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AS OF
DATE 17 DEC 1963

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS - CARGO - PASS.		RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	L-LENGTH	B-BASIC	T-TAKE-OFF		NO. TANKS	NO. GUNS	RDS PER GUN	LOCATION	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD		TYPE	FOR DETAILED ARMAMENT AND BOMB INSTALLATIONS SEE PAGE OPPOSITE.
															SUPERCHARGER PROP MFR. TYPE		
B-25C & D	WRIGHT R-2600-13 2 SPD. SUPER. HAMILTON STD. 12"7" DIA. - 3BL. P.F. HYDRA-MATIC	T 1700/SL	S 67'6"	L 53'	B 20500	T 1700/1500	2 x 184	1-30	600	NOSE - FLEX. UPPER TURRET	1-2000	NONE	3000	STN 2LV	TECHNICAL ORDER 01-600B-1.		
B-25C -I TO -25 INCL B-25D -I TO -35 INCL	AS ABOVE	M AS ABOVE	S AS ABOVE	L EXCEPT H 15'9"	C 29500	M AS ABOVE	2 x 184 2 x 151 1 x 585	1) ** 1) .50 2)	300 300 200	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET (Some only)	1-2000 2-1600*** 3-1000	1-2000 T 6-325 8-250 8-100	2-1600 8-250x	AS ABOVE	REFERENCE AS ABOVE *B-25C-25, B-25D-20, -25, -30 & -35 FUEL CAPACITY SAME AS B-25C SERIES; 1-125 SIDE WAIST TANK ON B-25D ONLY. **B-25C-1 & D-1 ARMAMENT SAME AS B-25C & D. ***CARRIED ON LATER MODELS ONLY. T - TORPEDO; X - EXTERNAL		
B-25G -I TO -10 INCL	AS ABOVE	M AS ABOVE	S 67'6"	L 51'	B 22000	M AS ABOVE	2 x 184 2 x 151 1 x 125 1 x 585	1-75MM 2-50 2-50	21 400 200	NOSE-TYPE W/L NOSE - FIXED UPPER TURRET LOWER TURRET (Some only)	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-600C-1. *SIDE WAIST TANK USED ONLY FOR SPECIAL MISSIONS. (B) TOTAL OF 550 GAL. BOMB BAY FUEL CONSISTS OF 1-215 GAL. SELF SEALING TANK & 1-335 GAL. METAL DROPPABLE TANK; 1-585 GAL. METAL TANK IS INTERCHANGEABLE.			
B-25H -I & -5	WRIGHT R-2600-13 or -29 2 SPD. SUPER. HAMILTON STD. 12"7" DIA. - 3BL. P.F. HYDRA-MATIC	T AS ABOVE	S AS ABOVE	L AS ABOVE	B AS ABOVE	M AS ABOVE	2 x 184 2 x 151 1 x 125 1 x 585	1-75MM 2-50 2-50	21 400 200	NOSE-TYPE W/L NOSE - FIXED UPPER TURRET LOWER TURRET (Some only)	AS ABOVE	1-2000 T	3200	AS ABOVE	TECHNICAL ORDER 01-600D-1. *SIDE WAIST TANK USED ONLY FOR SPECIAL MISSIONS. (B) TOTAL OF 550 GAL. BOMB BAY FUEL CONSISTS OF 1-215 GAL. SELF SEALING TANK & 1-335 GAL. METAL DROPPABLE TANK; 1-585 GAL. METAL TANK IS INTERCHANGEABLE. **B-25H-5 CARRIES 2 EXTRA NOSE PKG. GUNS or TOTAL OF 4.		
B-25J -I,	AS ABOVE	M AS ABOVE	S 67'6"	L 52'	B AS ABOVE	M AS ABOVE	AS ABOVE	1) .50 2)	300 400 200	NOSE - FLEX. NOSE - FIXED FORE - PACKAGE SIDE WAIST - PL. UPPER TURRET TAIL - FLEX.	1-2000 2-1600 3-1000	1-2000 T 6-325 8-250 8-100	2-1600 8-250x	AS ABOVE	TECHNICAL ORDER - FUEL NOTES AS ABOVE		

* LIMITED TO 35000 LB. BY FLYING CHARACTERISTIC

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	WEIGHT	STD. ALT.	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS	TOTAL FUEL	MAX. CONTINUOUS POWER			MAX. CRUISE POWER		LONG RANGE		
LB.	T.O. DIST.	LAND. DIST.	LAND. SPEED	LB.	FT.	MPH	FT/MIN.	MPH	FT/MIN.	MIN.	LB.	LB.	U.S. GAL.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 10000 FT.			
	FT.	FT.	MPH	FT.	FT.	MPH	FT/MIN.	MPH	FT/MIN.	MIN.	LB.	LB.	U.S. GAL.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	
B-25C & D	25000	-	3300	99	1550	20000	267	850	262	725	15.9	30000	NONE	1255	950	3.9	-	1475	7.0	-	1850	10.3
B-25C -I TO -25 INCL B-25D -I TO -35 INCL	30000 32000 34000 36000	3800 4700 5500	3650 3900	106 112	2950 3700	20000 15000 10000 5000	266 284 283	1300 1500 1800	262 279 276	1100 1350 1350	10.5 5.9 2.7	30000 29500	NONE 3000	1255 670	950 500	3.9 2.0	- -	1475 750	7.0 3.5	- -	1850 925	10.3 5.2
B-25G -I TO -10 INCL	32000 33700 34000 34900 35200	4700 5350 5150 5850	3950 4050 4100	112 115 116	3700 4250 4350	20000 15000 10000 5000	265 284 281	800 1225 1465	260 277 278	700 1050 6.2	16.4 10.7 6.2	32000 33700 32000 32000	NONE NONE 2000T x 2x250	1624 1559 974 974	650 700 650 600	2.9 3.0 2.9 2.9	- -	1050 950 950 875	5.9 4.6 4.6 4.5	- -	1350 1350 1350 1125	8.2 8.2 8.2 6.9
B-25H -I & -5	32000 33700 34000 34900 35200	4700 5350 5150 5850	3950 4050 4100	112 115 116	3700 4250 4350	20000 15000 10000 5000	265 284 281	800 1225 1465	262 277 278	700 1050 6.2	16.4 10.7 6.2	32000 33700 32000 32000	NONE NONE 2000T x 2x250	1624 1524 1189 974	650 700 675 650	3.0 3.0 3.0 3.0	- -	1025 950 950 950	5.1 4.8 4.8 4.8	- -	1350 1150 1150 1150	8.0 6.9 6.9 6.9
B-25J -I,	32000 33700 34000 34900 35200	4700 5350 5150 5850	3950 4050 4100	112 115 116	3700 4250 4350	20000 15000 10000 5000	265 284 281	800 1225 1465	262 277 277	700 1050 6.2	16.4 10.7 6.2	32000 33700 32000 32000	NONE NONE 2000T x 2x250	1624 1524 1189 974	650 700 675 650	3.0 3.0 3.0 3.0	- -	1025 950 950 950	5.1 4.8 4.8 4.8	- -	1350 1150 1150 1150	8.0 6.9 6.9 6.9

NOTES: (A)

MULTI RADIO SYSTEM

SCR-211 FREQUENCY METER
SCR-269G RADIO COMPASS
SCR-271A COMMAND SET (or SCR-522)
SCR-287A LIAISON SET
SCR-535 RECEIVER (or SCR-995 or SCR-695)
SCR-578 EMERGENCY TRANSMITTER
RC-196 CONTACTOR UNIT
RC-103 BLEND LANDING (provisions only)
RC-32 FILTER EQUIPMENT (or RC-198)
RC-36 INTERPHONE AMPLIFIER
RC-138 MARKER BEACON

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.



B-25
"MITCHELL"

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MARTIN

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL (MAXIMUM) U.S. GAL.
	NO. GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO. & SIZE	NO. & SIZE		
B-26-MA (B-26; A & A-1)	1-.30 1-.30 1-.50 2-.50	600 600 *400 400	NOSE.....FLEX. TUNNEL...FLEX. TAIL.....FLEX. U.TURRET..A3C	2-2000 4-1000 8- 500 16- 250 30- 100	NONE	4000	(B-26) 1212 1462 (B-26A,-1)
B-26B-MA (B)	1-.30 1-.30 2-.50 2-.50	600 600 1500 400	AS ABOVE	2-2000 2-1500 4-1000 8- 500 16- 250 30- 100	1-2000 (TORPEDO)	2-1500 1-2000 ? 5200	1462
B-26B-MA -10 to -20 incl. B-26C-MA -5 to 1st.75(-30)	1) 1) 2) 2) 2) 2)	.50 200 270 240 250 200 400 800	NOSE....FLEX. NOSE.....FLEX. SIDE WAIST..FL. U.FUS..PACKAGE L.FUS..PACKAGE U.TURRET..A3C TAIL.....FLEX.	A S	A B O V E		1962
B-26B-MA -25 to -75 incl. B-26C-MA Last 125 (-30) to -45**	AS ABOVE EXCEPT NO ARMAMENT ON PLANES LISTED FOR TOW TARGET USE IN NOTE (A)			AS ABOVE EXCEPT NO BOMBS ON PLANES LISTED FOR TOW TARGET USE IN NOTE (A)			1462

NOTES: (A) 2(C-25); 71(C-30); All but 1(C-35 & C-40); 1st.28(C-45); *200 RDS. ON B-26.
141(B-40) & 109(B-45). **NO NOSE GUNS ON C-45.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS - CARGO - PASS		RADIO	REMARKS & REFERENCE
	ENGINE 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 CARGO		
B-26	PRATT-WHITNEY R-2800-5 2 SPD. SUPER. CURTISS 13'6" DIA. - 3BL. P.F. ELECTRIC	T 1850/5 L M 1850/2700 C 1500/14000 1150/13000	S 65' 0" L 58' 3" H 19'10" T 22' 0" W 602 SQ. FT.	B 23300 C 35000 R 36500 W 36500	5	MAIN - WING 2 x 360 AUX. - WING 2 x 121 BOMB BAY - (PORE) 1 x 250 1212 TOT.	1-30 600 1-30 600 1-50 200 2-50 400	NOSE - FLEX. TUNNEL - FLEX. TAIL - FLEX. UPPER TURRET	2-2000 4-1000 8- 500 16- 250 30- 100	NONE	4000	STD. 24V	TECHNICAL ORDER 01-359A-1.		
B-26A	PRATT-WHITNEY R-2800-5 or -39 2 SPD. SUPER. CURTISS 13'6" DIA. - 3BL. P.F. ELECTRIC	T AS ABOVE	S AS ABOVE	B AS ABOVE	5	MAIN - WING 2 x 360 AUX. - WING 2 x 121 BOMB BAY - (PORE) 2 x 250 1162 TOT.	AS ABOVE EXCEPT TAIL GUN HAS 400 RDS.	A S	A B O V E	AS ABOVE	AS ABOVE	AS ABOVE	A S A B O V E		
B-26B	PRATT-WHITNEY R-2800-5 2 SPD. SUPER. CURTISS 13'6" DIA. - 3BL. P.F. ELECTRIC	T AS ABOVE	S AS ABOVE	B AS ABOVE	5	AS ABOVE	1-30 600 1-30 600 2-50 1500 400	NOSE - FLEX. TUNNEL - FLEX. TAIL - FLEX. UPPER TURRET	2-2000 2-1500 4-1000 8- 500 16- 250 30- 100	1-2000 (TORPED)	2-16000 1-2000x 5200	AS ABOVE	A S A B O V E		
B-26B -10 TO -20 INCL. B-26C -5 TO -25 INCL.	PRATT-WHITNEY R-2800-13 2 SPD. SUPER. CURTISS 13'6" DIA. - 3BL. P.F. ELECTRIC	T 2000/5 L M 2000/1500 1600/13500 1600/6500 1150/11000	S 71'10" L 58'13" H 21'6" T 22'10" W 699 SQ. FT.	B 25300 * C 37000 R 37500 W 38200 **	5	MAIN - WING 2 x 360 AUX. - WING 2 x 121 BOMB BAY - (PORE & REAR) 4 x 250 1962 TOT.	1 200 270 240 250 200 400 800	NOSE - FIXED NOSE - FLEX. SIDE WAIST - PL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURRET TAIL - FLEX.	A S	A B O V E	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE * B-26B-15 IS 800 LB. LIGHTER THAN B-26B-10. ** LIMITED TO 38200 LB. BY FLYING CHARACTERISTICS.		
B-26B -25 TO -75 INCL. B-26C -30 TO -45 INCL.	AS ABOVE	T AS ABOVE	S AS ABOVE	B AS ABOVE	5	MAIN - WING 2 x 360 AUX. - WING 2 x 121 BOMB BAY - (PORE ONLY) 2 x 250 1162 TOT.	A S A B O V E	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE * REAR BOMB BAY DELETED ON ALL ARTICLES EXCEPT 1st. 75 (B-26C-30).		

MODEL & BLOCK NO.	TAKE OFF & LANDING				HIGH SPEED & CLIMB						RANGE & ENDURANCE										REMARKS ON PERFORMANCE				
	HARD SURFACE - NO WIND				AT NORMAL COMBAT WEIGHT						STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE														
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
T.O. DIST.	LAND. DIST.	T.O. DIST.	LAND. DIST.	HIGH SPEED			RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB				AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.		
B-26	24000	-	2300	110	-	1600	20000	280	300	275	200	26.5	32500	NONE	1212	750	2.9	-	-	1050	4.9	-	-	1600	8.8
	28000	-	2900	120	-	2100	15000	306	750	302	600	11.0	35000	4000	962	550	2.2	-	-	750	3.6	-	-	1250	7.0
	32000	3250	3500	130	2350	2600	10000	297	1000	294	900	7.7													
	35000	4000	-	-	2950	-	5000	300	1150	288	8	3.4													
	36000	4300	-	-	3150	-	S L	284	1500	268	8	0.0													
B-26A		A S	A B O V E				35000	A S	A B O V E				34000	NONE	1162	950	3.5	-	-	1300	5.8	-	-	2000	11.0
													35500	1500	1162	900	3.5	-	-	1250	5.8	-	-	1950	10.7
													35000	4000	962	550	2.2	-	-	750	3.6	-	-	1250	7.0
B-26B		A S	A B O V E				20000	270	300	265	200	26.5	34000	NONE	1162	950	3.5	-	-	1300	5.8	-	-	2000	11.0
							15000	298	750	294	600	11.0	35500	1500	1162	900	3.5	-	-	1250	5.8	-	-	1950	10.7
							10000	291	1000	288	900	7.7	36000	2000T	1162	900	3.5	-	-	1250	5.8	-	-	1900	10.5
							5000	294	1150	283	8	3.4	35000	4000	962	500	2.2	-	-	750	3.6	-	-	1250	7.0
							S L	281	1500	265	8	0.0													
B-26B -10 TO -20 INCL. B-26C -5 TO -25 INCL.	24000	-	-	-	-	2150	20000	281	300	276	-	-	38200	NONE	1962	1200	4.8	-	-	1700	6.1	-	-	2600	15.3
	28000	-	3200	115	-	2500	15000	305	750	299	700	17.0	36000	NONE	1162	900	3.5	-	-	1250	5.8	-	-	1950	10.7
	32000	3250	3500	135	2200	2500	10000	303	1000	295	900	10.0	37500	1500	1162	850	3.5	-	-	1200	5.8	-	-	1900	10.4
	35000	4200	-	-	2900	-	5000	303	1100	295	8	3.5	38000	2000T	1162	850	3.5	-	-	1200	5.8	-	-	1850	10.2
	36000	4500	-	-	3100	-	S L	300	1200	281	8	0.0	37000	4000	962	500	2.2	-	-	700	3.6	-	-	1200	7.0
	38200	4900	-	-	3400	-																			
B-26B -25 TO -75 INCL. B-26C -30 TO -45 INCL.		A S	A B O V E				37000	A S	A B O V E				36000	NONE	1162	900	3.5	-	-	1250	5.8	-	-	1950	10.7
													37500	1500	1162	850	3.5	-	-	1200	5.8	-	-	1900	10.4
													38000	2000T	1162	850	3.5	-	-	1200	5.8	-	-	1850	10.2
													37000	4000	962	500	2.2	-	-	700	3.6	-	-	1200	7.0

NOTES: (A)

24 VOLT RADIO SYSTEM

SCR-211 FREQUENCY METER
 SCR-269G RADIO COMPASS
 SCR-271N COMMAND SET (or SCR-522)
 SCR-287A LIAISON SET
 SCR-535 RECEIVER (or SCR-995 or SCR-695)
 SCR-576 EMERGENCY TRANSMITTER
 RC - 32 FILTER EQUIPMENT (or RC-198)
 RC - 36 INTERPHONE AMPLIFIER
 RC - 13B MARKER BEADON

FOR FIGURES ARE PRELIMINARY; SUBJECT TO DESIGN AFTER FLIGHT CHECK

GENERAL NOTE:

CERTAIN B-26B & C ARTICLES HAVE BEEN MODIFIED FOR TOW TARGET USE BY REMOVAL OF GUNS AND ARMAMENT ITEMS; FOR DETAILS SEE PAGE OPPOSITE.

* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY



B-26
"MARAUDER"

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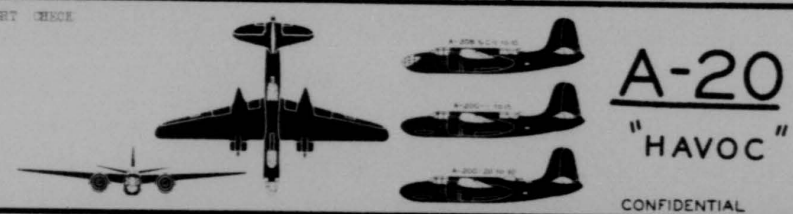
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT R-RECD LIM W-WAR MAX			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & PER GUN	RDS LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX LOAD LB.			TYPE
A-20 B	2	WRIGHT R-2600-11 2 SPD. SUPERCH. HAMILTON STD. 11'3" DIA. - 38L. F.F. HYDROMATIC	T 1600/3000 M 1600/3000 C 1350/5500 1275/12000	S 61'4" L 48'0" H 18'1" T 17' W 465 sq. ft.	B 15600 C 22000 R 25000 W 27000 a	3	MAIN - WING FUSELAGE BOMB BAY	4 - 390 1 x 100 2 - 590 1080 TOT.	1) .30 2) .30 1) .50 2) .50	500 1000 200	TUNNEL - FLEX. L & R. SACELLE REAR COCKPIT NOSE - FIXED	1-1000 1- 500 4- 250 10- 100	1-2000 T 2- 500 4- 250 4- 100	2000	SCR-271A SCR-535 MN - 26C RC - 51 * SOME MODELS ONLY. T-TORPEDO	
A-20 C -1 TO -10 INCL.	2	WRIGHT R-2600-23 2 SPD. SUPERCH. HAMILTON STD. 11'3" DIA. - 38L. F.F. HYDROMATIC	T 1600/3000 M 1600/1000 C 1350/5000 1275/11500	S AS ABOVE L EXCEPT LENGTH IS 47'4"	B 16500 C 23000 R 25200 W 27000 a	3	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) BOMB BAY (SEE NOTE A)	2 x 136 2 x 64 2 x 70 or 4 - 680 1080 TOT.	1) .30 2) or 4) .50	500	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	1-2000 T	2000	AS ABOVE * TORPEDO ON A-20C-5 & -10 ONLY.	
A-20 G-1	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17200 C 24000 R 25200 W 27000 a	3	AS ABOVE	AS ABOVE	1) .30 1) .50 2) .50 4) 20MM	500 500 350 60	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED NOSE - TYPE M2	AS ABOVE	AS ABOVE	AS ABOVE	SCR-271A SCR-535A SCR-695A MN - 26Y RC - 36 RC-32or198	
A-20 G -5 TO -15 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17200 C 24000 R 25200 W 27000 a	3	AS ABOVE	AS ABOVE	1) .30 1) .50 6) .50	500 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	
A-20 G -20 TO -30	2	AS ABOVE	AS ABOVE	AS ABOVE	B 17700 C 26000 R 26000 W 27000 a	3	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) PROP. - EXT. 1099 TOT.	2 x 136 2 x 64 3 - 325 1 x 374	1) .30 2) .50 6)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	AS ABOVE	1-2000 T 4- 500 4- 250 4- 100	4-5001 4-500x 4- 250 4000	SCR-271A SCR-595 SCR-695A MN - 26Y RC - 36 RC - 198	

* CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB.

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 FT./MIN.	RATE OF CLIMB M.P.H.	HIGH SPEED FT./MIN.	RATE OF CLIMB M.P.H.				TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
A-20 B	17000 19000 22000 24000 27000	- 2800 4000 4850 6500	2500 2700 3000 3500 4700	88 95 105 105 105	1500 1650 1900 1900 -	25000 20000 15000 10000 5000	250 303 315 318 303	370 900 1125 1830 2125	277 300 312 312 297	250 775 1275 1425 297	22.6 13.2 8.5 4.8 2.8	23800 22000	NONE 2000	1080 490	850 300	3.3 1.4	1150 500	4.9 2.1	1500 600	7.0 2.7	- -	- -	2100 900	13.4 6.0			
A-20 C -1 TO -10 INCL.	18000 20000 23000 25000 27000	- 3200 4400 5200 6500	2800 3150 3250 4700 -	98 109 109 109 -	1600 1750 2000 2000 -	25000 20000 15000 10000 5000	275 302 317 319 306	300 800 1320 1750 1990	274 298 312 312 301	270 720 1200 1120 307	23.9 13.9 8.7 5.0 2.4	21500 23200	NONE 2000	1080 540	875 425	3.3 1.5	- 700	- 3.1	1500 600	6.6 2.7	- -	- -	2300 850	12.0 4.5			
A-20 G-1	19000 21000 24000 25000 27000	- 3600 4850 5900 6500	2700 2900 3250 4700 -	95 102 113 109 -	1650 1850 2100 2100 -	25000 20000 15000 10000 5000	275 302 317 317 306	300 800 1260 1580 1860	274 298 312 312 301	270 720 1150 1120 307	23.9 13.6 9.2 5.3 2.5	25300 24000 24000	NONE 2000 2000 Torpedo	1080 540 540	975 450 425	3.5 1.7 1.7	1650 750 650	6.8 3.1 3.0	1700 800 700	7.3 3.4 3.3	2000 900 -	9.1 4.1 -	2300 1100 950	12.4 6.0 5.7			
A-20 G -5 TO -15 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	AS ABOVE	AS ABOVE	AS ABOVE
A-20 G -20 TO -30	25000 20000 15000 10000 5000	511 891 1112 1500 306	1750 2000 2000 1250 1900	251 285 307 308 285	210 525 975 1250 297	25000 20000 15000 10000 5000	251 291 311 317 306	300 600 1125 1500 1750	210 285 297 308 285	210 525 975 1250 297	16.7 10.1 6.1 2.8 0.0	26200 26000 26000 26000	NONE 2000 2000 T 4000	1099 725 725 400	900 625 575 500	3.5 2.3 2.3 1.2	- 950 925 425	- 4.3 4.3 2.0	1625 1075 975 525	7.3 4.6 4.5 2.3	- 1250 -	- 5.7 -	2000 1300 1175 650	11.2 6.6 6.7 3.3	* TORPEDO REPLACES INTERNAL BOMBS WHEN CARRIED.		

NOTES: (A) FUSELAGE TANKS IN A-20C & SUBSEQUENT MODELS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING BOMB LOAD CAPACITY.

END FIGURES ARE PRELIMINARY. SUBJECT TO FLIGHT CHECK.
* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.			SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS - CARGO - PASS.		RADIO	REMARKS & REFERENCE
NUMBER	ENGINE MFR. MODEL	B.H.P./ALT.	T-TAKE-OFF	S-SPAN	L-LENGTH	B-BASIC	NO. TANKS	NO. GUNS & CAPACITY	RDS PER GUN	LOCATION & TYPE	INTERNAL		EXTERNAL		MAX. LOAD LB.	TYPE
											NO. & SIZE	STATION	NO. & SIZE	CAPACITY		
MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY
2	WEIGHT R-2600-23 2 SPD. SUPERCH. HAMILTON STD. 11'3" DIA. - 3 BL. P. F. HYDROMATIC	1600/SL	1600/1000	5 61'4"	18'1"	17800	2 x 136	2 x 64	1) 400 2) 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	4-500 4-250 4-100	1-2000 T 4-500 4-250 4-100	4-500 1 4-500 2 4-500 3 4-100	SCR-274M SCR-695A MN - 25T RC - 36 RC - 198	TECHNICAL ORDER T-TORPED X-EXTERNAL; I-INTERNAL	
T				S		B										
M				L		C										
C				H		R										
T				T		W										
M				L		B										
C				H		C										
T				T		W										
M				L		B										
C				H		C										
T				T		W										
M				L		B										
C				H		C										

* CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB.

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE						REMARKS ON PERFORMANCE				
	TO CLEAR 50		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE					
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.		RANGE	ENDUR.	RANGE	ENDUR.
A-20J -1 & -5	19000	-	2700	95	-	1850	25000	451	600	420	-	-	1099	1000	3.5	-	1825	7.5	-	2000	11.2	* TORPEDO REPLACES INTERNAL BOMBS WHEN CARRIED.	
	21000	3600	2900	102	2650	1850	20000	291	600	350	525	16.7	26500	NONE	725	625	2.3	-	1300	6.5			
	24000	4850	3200	113	3600	2100	15000	311	1195	307	975	10.1	26300	2000	725	625	2.3	950	4.3	1250	5.7		
	26000	5900	-	-	4500	-	10000	337	1590	308	1350	6.1	26300	*2000 T	725	675	2.3	725	4.3	975	5.2		
	27000	6900	-	-	4700	-	5000	398	1350	294	1250	5.6	26300	4000	400	800	1.2	125	2.3	550	2.3		
							26000	302	1200	280	1100	5.3											

NOTES: (A)

FUSelage TANKS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING BOMB LOAD CAPACITY.

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



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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 & PER CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE OR STATION	EXTERNAL NO & SIZE OR CAPACITY	MAX. LOAD LB.			TYPE									
																		18	19	20	21	22	23	24	25	26
A-26B -1 & -5	2	FRATT-WHITNEY R-2800-27 SINGLE ST.-2 SPD. HAMILTON STD. 12" DIA. - 3HL. F. F., HYDROMATIC	T 2000/5 L M 2000/1500 C 1600/12000 1600/6000 1450/14000	S 70' L 50'6" H 18'6" T 19'6" W 540 SQ. FT.	B 25100 C 33700 R 34000 W 37000	2 x 300 2 x 100 1 x 125 1 x 600 1575 TOT.	1-75MM 20 2-.50 500 2-.50 500 8-.50 300	20	NOSE CANNON UPPER TURRET LOWER TURRET WINGS-PACKAGE PURPOSE NOSE	4-1000 6-500 8-250 16-100 10-100	2-2000 T 4-500 4-250 4-100	4-1000 4-500 4-250 4-100	6000	SCR-274N SCR-995 MN-260 RC-36	TECHNICAL ORDER OI-LOAD-1. *NO SELF SEALING BOMB BAY TANK ON A-26B-1-DL ONLY. **NORMAL CREW OF 2; CREW OF 3 WITH 75MM CANNON ONLY. a COMBINATION LISTED TO BE REPLACED WITH ALL PURPOSE NOSE; PARTS WILL BE PROCURED FOR SERVICE INSTALLATION. b 10-100 LB. BOMBS CAN BE CARRIED WITH S.S. BOMB BAY TANK. c MAX. BOMB LOAD OF 6000 LB. CAN ONLY BE CARRIED IF AMMUNITION FOR 75MM CANNON IS DELETED; BOMBS CANNOT BE CARRIED IN FORWARD R.H. BOMB BAY WHEN CASE CONTAINER FOR 75MM AMMUNITION IS CARRIED.											

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT					RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE								REMARKS ON PERFORMANCE					
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER			TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE				
		T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.		LAND. DIST. FT.	WEIGHT LB.	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.
		MILES	HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS	MILES				HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS	MILES
A-26B -1 & -5	25000 29000 32000 33000 34000 36000	- 2900 3700 4000 4300 4650	3650 3990 3200 3250 -	96 104 109 111 -	1750 2100 2550 2700 -	33700	327 340 346 339 317	- 700 1050 1230 1700 2000	190 330 395 391 285	19.0 19.1 11.7 6.4 8.7 0.0	14000 33700 30700 36000	NONE NONE 3000 4000	1575 925 925 800	COMBAT RANGE CONDITIONS	NOT AVAILABLE			3150 1650 -	16.4 8.5 -	* STRIPPED TO 1600 LB. FOR FERRYING PURPOSES.			

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



A-26

MANUFACTURED BY DOUGLAS

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
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PAGE 8 AS OF DATE 20 DEC. 1943																	
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 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-36A	1	ALLISON V-1710-27 SINGLE SPEED CURTISS 10 1/2" DIA. - 3BL. CONST. SPD. ELECT.	1325/8 L	S 37' 0" L 32' 3" H 11' 11" T 11' 10" W 233 SQ. FT.	B 7100 C 10000 R 10700 W -	1	MAIN - WING EXT. - WINGS	2 x 90 2 x 75 or 2 x 150 180 TOT.	2 x .50 1 x .50	200 200	NOSE - FIXED WING - FIXED	NONE	2-500 2-250	1000	SCR-271M SCR-535 SCR-595**	TECHNICAL ORDER 01-608B-1. ** WAR EMERGENCY RATING. ** LAST 399 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												

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE	
	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		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 10,000 FT.	AT 25000 FT.	AT 10000 FT.		ENDUR.
A-36A	9000 10000 11000	2800 3400 14100	110 110 110	2050 2500 3200	10000	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 -	11000 10000 9000 10000	NONE NONE NONE 1000	180 330 180 180	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:

NEW FIGURES ARE PROVIDED FOR THE 1943 MODEL OF THIS AIRCRAFT.

* MILITARY POWER AVAILABLE FOR 15 MINUTES.



A-36
"INVADER"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 9
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	
																	CONVERSION
C-46A -1 TO -25 INCL.	2	PRATT-WHITNEY R-2800-51 2 SPEED CURTISS 13'6" DIA. - 4 BL. F.F., ELECTRIC	2000/5 L 1600/13500 1600/5700 1150/13000	S 108'0" L 76'4" H 22'0" T 26'0" W 1360 SQ.'	B 32100 C 46000 R 46000 W 56000A	3	WING-PANELS PUSELAJE	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, 269, 271A, 287, 518, 578 & 695. RC-36, 43, 103A, 128, AN/ARR-1	TECHNICAL ORDER 01-25LA-1. (REVISION IN PROGRESS) * EARLY MODELS HAVE HAMILTON STD. 3BLADE, HYDROMATIC, 15'1" DIA. PROPELLER. ** MISC. RADIO CARRIED. MAX. COMBINATION SHOWN. NOTE: EARLY MODELS LIMITED TO 40000# GROSS WEIGHT & HAVE SMALL CARGO DOOR.		
C-47 & A C-53, C & D	2	PRATT-WHITNEY R-1830-92 INTERNAL SUPER. HAMILTON STD. 11'7" DIA. - 3 BL. F.F., HYDROMATIC	1200/5 L - 1050/7000	S 95'0" L 61'6" H 17'0" T 18'6" W 987 SQ.'	B 18000 C 26000 R 29000 W 36500A	3	MAIN - WING AUX. - WING PUSELAJE	2 x 202 2 x 200 8 x 100 1604 TOT.	N 0 N	E	CARGO or TROOPS or LITTERS	6000 27 12	6000 NO. 1 10000 MAX. 525/595 11000 MAX. 605/675 RC-36, 43, 103A, 128, AN/ARR-1	TECHNICAL ORDER 01-400-1. * MISC. RADIO CARRIED; MAX. COMBINATION SHOWN. (AN/APN-2 ON SOME MODELS) C-47, C-53 & C-53C INSTALLED WITH 12VOLT SYSTEM; OTHERS WITH 24 VOLT SYSTEM. NOTE: C-47 & C-53 SERIES SIMILAR EXCEPT FOR LARGE CARGO DOOR ON C-47. THE C-53 CARRIES 22 PASSENGERS.			
C-54A	4	PRATT-WHITNEY R-2000-3 or -7 2 SPEED HAMILTON STD. 13'1" DIA. - 3 BL. F.F., HYDROMATIC	1290/5 L 1290/3000 940/13200 1015/9000 940/13200	S 117'6" L 93'10" H 27'6" T 24'8" W 1460 SQ.'	B 37000 C 58000 R 58600 W 76000A	6	INBD - WING AUX. - WING PUSELAJE	2 x 506 2 x 435 4 x 164 3742 TOT.	N 0 N	E	FORE-BELLY APT-BELLY FORE-CARGO APT-CARGO TROOPS	1800 2100 24000 14900 30 or 50	25000	SCR-211, 271A, 287, 287, 578, 595/695. RC-36, 43, 103A, 128, AN/ARR-1	TECHNICAL ORDER 01-400M-1. * MISC. RADIO CARRIED. MAX. COMBINATION SHOWN. NOTE: 30 TROOPS WITH PUSELAJE TANKS (374.2 GAL.) 50 TROOPS WITHOUT PUSELAJE TANKS (1886 GAL.)		
C-60A -1 & -5	2	WRIGHT R-1820-27 2 SPEED HAMILTON STD. 10'6" DIA. - 3 BL. F.F., HYDROMATIC	1200/5 L 1200/5700 1000/15700 1000/8400 900/16500	S 65'8" L 49'10" H 12'0" T 15'4" W 551 SQ.'	B 13000 C 21500 R 21500 W 25000	3	FRONT - WING REAR - WING AUX. - WING	2 x 150 2 x 172 3 x 134 1016 TOT.	N 0 N	E	BELLY CABIN or PARATROOPS	3400 6600 or ** 18	8500	SCR-211, 269, 271A, 287, 578, 595/695. RC-36, 43, 103A, 128, AN/ARR-1	TECHNICAL ORDER 01-750E-1. * MISC. RADIO CARRIED. MAX. COMBINATION SHOWN. EARLIER MODELS CARRY SCR-535 IN PLACE OF SCR-695. ** 1200 LB. BALLAST REQUIRED IN NOSE TO BALANCE PARATROOPS.		
C-87	4	PRATT-WHITNEY R-1830-13 TURBO HAMILTON STD. 11'7" DIA. - 3 BL. F.F., ELECTRIC	1200/5 L 1200/26500 1100/27000	S 110'0" L 66'4" H 18'0" T 25'8" W 1016 SQ.'	B 34250 C 56000 R 56000 W 62000*	5	INBD - WING OUTBD - WING	12 - 2364 6 - 450 2814 TOT.	1-50	500	TAIL - FLEX. (ON SOME MODELS ONLY)	20 or 7 11	1400 NO. 1 10000 MAX. RC-36 RC-43	SCR-271A, 287, 269, 578, 695, RC-36, RC-43	TECHNICAL ORDER 01-50A-1. (PRELIMINARY DATA) A CARGO VERSION OF B-2L MODEL; SILHOUETTE VIEW APPROX. AS B-2L & WILL APPEAR NEXT ISSUE. * RESTRICTED MAXIMUM ALLOWABLE GROSS WEIGHT.		

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

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.		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.					FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.
C-46A -1 TO -25 INCL.	34000 39000 45000 50000	- 2700 4050 6300	1800 2000 2250 -	- - - -	1150 1300 1500 -	14000	20000 15000 10000 5000 S L	530 780 900 1100 1300	258 265 254 255 260	400 650 750 900 900	28.4 18.6 11.6 5.5 -	51000 46000 46000 51000	2000 3000 5000 10000	2200 1400 1050 1050	1400 850 650 620	5.5 3.5 2.5 2.5	ABOVE PRAC-TICAL CRUIS-ING CEILING	2600 1650 1150 1100	12.3 7.5 5.5 5.5	ABOVE PRAC-TICAL CRUIS-ING CEILING	3200 2150 1550 1200	16.0 10.5 7.5 6.3	NOTE: * HIGH SPEED IN PRELIMINARY TEST - 264 MPH AT 13000 FT. ALTITUDE & 58200 LB. GROSS WT.	
C-47 & A C-53, C & D	21000 23000 26000 29000	- 1850 2400 3200	2100 2300 2600 -	66 69 73 -	1300 1100 1600 -	26000	20000 15000 10000 5000 S L	204 220 217 202 187	225 500 800 1175 1200	201 217 720 920 -	37.0 20.0 11.0 5.0 -	28000 26000 29000	NO. 1 2000 6000**	1600 1000 804	1500 950 750	7.6 4.7 3.7	AS ABOVE	2300 1450 1100	13.0 7.9 6.2	AS ABOVE	3100 2050 1550	19.3 12.7 10.0	* MAX. PERMISSIBLE LEVEL FLIGHT SPEED FOR 29000 LB. ** 6000 LB. CARGO or 28 TROOPS.	
C-54A	45000 55000 59000 62500 65000	- 2800 3300 3850 4350	2900 3400 -	80 90 -	1800 2200 -	58000	20000 15000 10000 5000 S L	- - - 272 260	- - - 1150 1150	269 800 276 260 245	425 800 1000 1100 1050	21.4 16.0 9.4 4.4 -	62500 65000 59000 65000	NO. 1 8000* 8000* 14000**	3742 2814 1886	EXCEEDS SPEED LIMITS	AS ABOVE	2500 1600 1550	16.2 12.0 7.7 7.7	AS ABOVE	4100 2900 1900 1800	26.0 17.1 11.7 10.2	* 5000 LB. CARGO or 30 TROOPS & 2000 LB. EQUIPMENT. ** 14000 LB. CARGO or 50 TROOPS & 4000 LB. EQUIPMENT.	
C-60A -1 & -5	14000 17500 18500 21500 23000	- 1800 2050 2850 3300	2150 2600 2700 -	61 68 70 -	1700 2100 2200 -	21500	20000 15000 10000 5000 S L	259 269 260 255 238	650 1300 1400 1600 1600	255 262 255 217 235	19.0 11.0 7.0 3.0 -	21500 23000	1450 5000	1016 614	1000 600	4.5 2.7	AS ABOVE	1450 850	7.0 4.3	AS ABOVE	2300 1200	14.4 7.7	* SPEED RESTRICTED IN LEVEL FLIGHT. ** 5000 LB. CARGO or 18 PARATROOPS & 1200 LB. BALLAST IN NOSE.	
C-87	40000 50000 56000 60000	- 3500 4750 6000	3300 3900 4250 -	90 100 105 -	2800 3300 3550 -	56000	30000 25000 20000 15000 10000 5000 S L	302 317 301 287 273 260	600 1090 1100 1150 1200 1200	295 311 295 282 269 265	34.0 26.8 20.9 15.3 9.0 4.2	52900 55000 56000 60000	NO. 1 3100 5800 9800	2814 1295 2364 2364	1215 1205 1000 975	4.6 4.6 3.8 3.7	1385 1375 1135 1100	4.6 4.6 3.8 3.8	2635 2950 2100 1975	11.7 11.1 9.4 8.9	2855 2750 2235 2155	11.0 10.8 8.9 8.6	3365 3235 2650 2500	17.0 16.2 13.1 12.3

NOTES:


MANUFACTURERS
 C-46A - CURTISS
 C-47 & A - DOUGLAS
 C-53, C & D - DOUGLAS
 C-54A - DOUGLAS
 C-60A - LOCKHEED



C-47A "SKYTRAIN"



C-46A "COMMANDO"



C-54A "SKYMASTER"



C-60A "LODESTAR"

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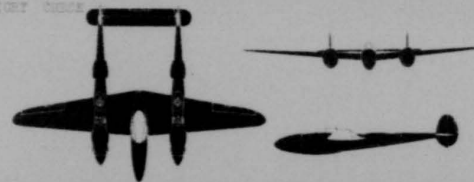
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	PAGE 10
CONFIDENTIAL																	AS OF: 17 DEC. 1943
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS - CARGO - PASS.			RADIO	REMARKS & REFERENCE		
	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-38E	2	ALLISON V-1710-27 & 29 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1150/5 L M 1150/25000 C 1000/28000	S 52' 0" L 37'10" H 12'10" T 16' 6" W 328 SQ. FT.	B 12700 C 15000 R 20000 W -	1	MAIN - WING RES. - WING	2 x 90 2 x 60 300 TOT.	1-20MM 4-.50	150 500 (MAX.)	NOSE - TYPE M1 NOSE - FIXED	NO BOMBS CARRIED	SCR-183	TECHNICAL ORDER 01-75PB-1.			
P-38F	2	ALLISON V-1710-19 & 53 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1225/5 L M 1225/21000 C 1000/27000	L AS ABOVE H AS ABOVE T W	B 13000 C 15300 R 20000 W -	1	AS ABOVE		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-183 or SCR-274M	AS ABOVE			
P-38F -1 TO -15 INCL.	2	AS ABOVE	M AS ABOVE C AS ABOVE	L AS ABOVE H AS ABOVE T W	B 13600 C 15900 R 20000 W -	1	MAIN - WING RES. - WING INOP. - EXT.	2 x 90 2 x 60 2 x 75 or 2 x 150 600 TOT.	AS ABOVE	AS ABOVE	NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-274M SCR-515** SCR-522 SCR-535	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY.		
P-38G -1 TO -15 INCL.	2	ALLISON V-1710-51 & 55 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1225/5 L M 1225/21000 C 1100/24000	L AS ABOVE H AS ABOVE T W	B 13500 C 15800 R 20000 W -	1	AS ABOVE EXCEPT THAT LAST P-38G-10'S ARE SAME AS BELOW	200 2 x 90 2 x 60 2 x 75 or 2 x 150 600 TOT.	AS ABOVE	AS ABOVE	AS ABOVE EXCEPT P-38G-10'S ONLY SAME AS BELOW	AS ABOVE EXCEPT THAT ARE	SCR-274M SCR-515** SCR-522 SCR-535 SCR-695***	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY. *** LAST 179 P-38G-10'S ONLY.			
P-38H -1 & -5	2	ALLISON V-1710-89 & 91 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1125/5 L M 1125/25000 C 1100/25000	L AS ABOVE H AS ABOVE T W	B 13700 C 16300 R 21000 W -	1	MAIN - WING RES. - WING INOP. - EXT.	2 x 90 2 x 60 2 x 75 or 2 x 150 600 TOT.	1-20MM 4-.50	150 500 (MAX.)	NOSE-AN-M2"C" NOSE-FIXED	NONE	2-1600 2-1000 2-500 2-325 2-250 2-100	3200	SCR-274M SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-75PP-1. (25 SEPT. 1943) * PROVISIONS ONLY. ** SPACE ONLY. ± LIMITED TO 12LPH. BECAUSE OF INADEQUATE COOLING.	

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 U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE				
	LB	FT	FT	FT		FT	FT			M.P.H.	FT/MIN.	M.P.H.	FT/MIN.				MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS
P-38E	13000 14600 15500	- 1950 2200	2650 1950 2200	83 88 -	- 1200 1330	11400 1550 -	19000	25000 20000 15000 10000 5000	390 380 365 353 340	2100 2300 2500 2700 2900	380 365 353 340 328	11.0 8.0 6.0 4.0 2.0	15500	NONE	300	450	1.5	475	1.5	750	3.0	750	2.7	875	4.4
P-38F	13500 15000 15800	- 2150 2300	2750 2980 -	85 90 -	- 1280 1380	11500 1580 -	19300	SUBSTANTIALLY SAME AS P-38E		AS P-38E			15800	NONE	300	400	1.3	425	1.3	700	2.7	675	2.4	900	4.5
P-38F -1 TO -15 INCL.	13500 15000 15500 17500 19900	- 2150 2270 3040 4000	2750 2980 3050 3350 -	85 90 91 97 -	- 1280 1360 1830 2400	11500 1580 1620 1800 -	19900	25000 20000 15000 10000 5000	395 390 376 351 347	2100 2300 2450 2600 2800	380 367 354 340 327	12.0 8.8 6.0 4.0 1.3	19900 18000 15900 17000 18000	NONE NONE NONE 1000 2000	900 600 300 300 300	1375 800 400 385 375	5.0 2.9 1.3 1.3 1.3	1450 850 400 395 375	5.0 2.9 1.3 1.3 1.3	2050 1400 700 675 685	9.3 6.1 2.7 2.8 2.8	2050 1425 685 650 600	8.6 5.4 2.4 2.4 2.3	850 1750 900 850 800	4.4 9.1 4.5 4.3 4.1
P-38G -1 TO -15 INCL.		SAME	AS P-38F	AS P-38F	AS P-38F	AS P-38F	19600	25000 20000 15000 10000 5000	400 390 375 360 345	1700 2300 2500 2600 2800	390 377 362 347 333	11.5 8.5 5.9 3.7 1.8	SUBSTANTIALLY SAME AS P-38F-15												
P-38H -1 & -5	13600 15500 17500 19500 20300	- 2900 2500 3500 4000	2750 3050 3500 -	86 93 100 -	- 1200 1600 2000 2300	11500 1650 2000 -	16600	25000 20000 15000 10000 5000	402 387 372 360 346	1700 2300 2500 2600 2800	390 375 360 348 332	9.7 7.6 5.5 3.5 1.8	20300 18300 16300 18300 19500	NONE NONE NONE 2000 3200	900 600 300 300 300	1300 750 750 425 400	5.0 2.9 1.3 1.3 1.3	1350 800 375 325 300	5.0 2.9 1.3 1.3 1.3	1950 1350 650 575 550	9.3 6.1 2.7 2.8 2.7	1950 1430 650 575 525	8.6 5.4 2.4 2.3 2.2	2000 1700 850 750 700	10.0 9.5 4.7 4.0 3.8

NOTES:

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



P-38
"LIGHTNING"

MANUFACTURED BY LOCKHEED

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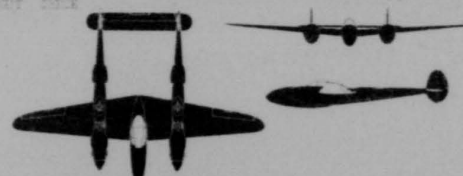
TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
CONFIDENTIAL																
PAGE 10a AS OF DATE 17 MAR 1945																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS		RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT 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-38J -5&-10	2	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3BL. PP. - ELECTRIC	T 1125/8 L M 1125/26500 C 1100/32500	S 52' 0" L 37'10" H 12'10" T 16' 6" W 328 sq. ft.	B 13550 C 16300 R 21000 W -	1	MAIN - WING RES. - WING PROP. - EXT. (SEE A)	2 x 90 2 x 60 2 x 75 or 1 x 150 or 2 x 500	1-20MM 4- .50 (MAX.)	150 500 (MAX.)	NOSE - AN M2 "C" NOSE - FIXED	NONE	2-1500 2-1000 2- 500 2- 325 2- 250 2- 100	3200	SCR-27/AN SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-75FP-1. (25 SEPT. 1943) A-KITS BEING SENT THROUGH FOR INSTALLATION OF 2-62 GAL. LEADING EDGE TANKS; SAME AS BELOW WHEN INSTALLED. *PROVISIONS ONLY. **SPACE PROVIDED.
P-38J -5&-10 [L.E. TANKS]	2	AS ABOVE	T 1125/8 L M 1100/26500 C 1100/32500	S AS ABOVE L AS ABOVE H AS ABOVE T AS ABOVE W AS ABOVE	B 13700 C 17200 R 22000 W -	1	MAIN - WING RES. - WING L.E. - WING PROP. - EXT. (SEE A)	2 x 90 2 x 90 2 x 75 1 x 150 2 x 500 1024 TOT.	AS A B O V E	AS A B O V E	AS A B O V E	AS A B O V E	AS A B O V E	AS A B O V E	AS A B O V E	REFERENCE AS ABOVE A-THE 2-62 GAL. LEADING EDGE TANKS INSTALLED AT MOD. CENTER W/ 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											
			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																
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
T.O. DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.		
LB.	FT.	FT.	MPH	FT.	FT.	MPH	FT/MIN.	MPH	FT/MIN.	MIN.	LB.	LB.	U.S. GAL.	MPH	HOURS	MPH	HOURS	MPH	HOURS						
P-38J -5&-10	13500	-	2750	86	-	1150	30000	111	2150	398	10.0	20300	NONE	900	1000	3-8	1100	3-8	1700	6-7	1750	6-9	2100	12.0	P-38J SERIES HAVE INCREASED DRAG DUE TO EXTERNAL CORE TYPE COOLERS.
	15500	2000	3050	93	1050	1625	25000	106	2050	385	7.8	18900	NONE	630	750	2-6	775	2-6	1250	4-5	1300	4-6	1675	9.2	
	16300	2100	3200	96	1150	1700	20000	392	3050	366	5-9	16500	NONE	300	325	1-1	350	1-1	600	2-3	600	2-2	800	4-5	
	18300	2700	-	-	1150	-	15000	378	3300	353	4-3	18300	2000	300	300	1-1	330	1-1	525	2-2	525	2-0	700	3-7	
[MILITARY POWER]	20300	3800	-	-	2250	-	10000	365	3500	310	2-8	19500	3200	300	290	1-1	275	1-1	475	2-0	500	1-9	650	3-8	
P-38J -5&-10		AS	AS	AS	AS	AS	16300	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	HIGH SPEED & CLIMB VALUES ARE FOR WAR EMERGENCY RATING; WITHOUT EXTERNAL WING BAKES.
[WAR EMER. POWER]		AS	AS	AS	AS	AS	16300	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	
P-38J -5&-10	13500	-	2750	86	-	1150	30000	107	1960	393	10.5	21300	NONE	1024	1075	4-3	1100	4-3	1650	7-8	1915	7-7	2300	13.5	
	15500	1900	3050	93	1050	1525	25000	100	2050	380	8-3	19900	NONE	754	835	3-1	900	3-1	1100	5-3	1500	5-4	1950	12.1	
	17200	2250	3450	97	1250	1800	20000	387	2850	361	6-4	17200	NONE	424	460	1-6	475	1-6	825	3-2	860	3-2	1200	6.8	
[MILITARY POWER]	19200	3100	3650	103	1700	2000	15000	374	3050	350	4-7	19200	2000	300	300	1-1	330	1-1	525	2-2	525	2-0	700	3-7	
[L.E. TANKS]	20400	4000	3850	-	2250	2100	10000	362	3200	337	3-1	20400	3200	424	455	1-6	425	1-6	725	3-1	750	2-8	1000	5-4	
	21300	5000	-	-	2000	-	5000	347	3100	318	1-9			424	400	1-6	410	1-6	685	2-9	785	2-7	900	5-3	
P-38J -5&-10		AS	AS	AS	AS	AS	17200	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	HIGH SPEED & CLIMB VALUES ARE FOR WAR EMERGENCY RATING; WITHOUT EXTERNAL WING BAKES.
[WAR EMER. POWER]		AS	AS	AS	AS	AS	17200	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	
		AS	AS	AS	AS	AS		AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	
[L.E. TANKS]		AS	AS	AS	AS	AS		AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	
		AS	AS	AS	AS	AS		AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	

NOTES:

RED FIGURES ARE PRELIMINARY SUBJECT TO REVISIONS AFTER FLIGHT DATA

* MILITARY POWER AVAILABLE FOR 15 MINUTES



P-38
"LIGHTNING"

MANUFACTURED BY LOCKHEED

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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AS OF: DATE 23 DEC. 1943

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 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	EXTERNAL			MAX. LOAD LB.	TYPE
												NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY				
P-39D	ALLISON V-1710-35 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/S L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" T 11' 4" W 213 SQ. F.	B 6300 C 7650 R 9200 W -	1	WING TOTALS 12-120 1x 75 or 1x156 or 1x175 295 TOT.	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	NONE	1-500 1-325 1-250 1-100	500	SCR-283	TECHNICAL ORDER 01-110PB-1.			
P-39D-1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	4-.30 2-.50 1-20MM	*1000 200 60	WING - FIXED NOSE - FIXED PROP. - TYPE M1	A S	A B O V E		SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PB-1.			
P-39D-2	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECT.	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	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	ALLISON V-1710-35 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/S L M 1150/12000 C 1000/10800	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		SCR-283	TECHNICAL ORDER 01-110PB-1.			
P-39K-1	ALLISON V-1710-63 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. ELECT.	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	A S	A B O V E	A S	A B O V E	A S	A B O V E	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PB-1.			

MODEL & BLOCK NO.	TAKE OFF & LANDING				HIGH SPEED & CLIMB						RANGE & ENDURANCE										REMARKS ON PERFORMANCE						
	HARD SURFACE - NO WIND				AT NORMAL COMBAT WEIGHT						STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE																
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE									
	T.O. DIST.	LAND. DIST.	LANDING SPEED	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.			
LB.	FT.	FT.	MPH	FT.	FT.	MPH	FT./MIN.	MPH	FT./MIN.	MIN.	LB.	LB.	U.S. GAL.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.								
P-39D	6700	-	1850	62	-	1100	7600	25000	321	750	510	#	11-0	8850	NONE	295	550	2.2	-	-	-	-	-	-	1100	6.2	ALL PERFORMANCE ESTIMATED
	7600	2800	2050	66	1800	1300		20000	342	1350	332	#	7-1	8800	NONE	276	595	2.0	-	-	-	-	-	-	1050	5.9	
	7800	3000	2100	68	2000	1350		15000	360	2000	343	#	6-1	8150	NONE	195	600	1.6	-	-	-	-	-	-	800	4.7	
	8150	3400	2200	91	2250	1400		10000	355	2450	345	#	3-0	7650	NONE	120	375	0.9	1.0	1.7	350	1.0	-	-	600	2.9	
	8850	4500	-	-	2800	-		5000	335	2950	323	#	1-0	8150	500	120	225	0.9	-	-	200	1.5	-	-	450	2.6	
P-39D-1	AS ABOVE				AS ABOVE						AS ABOVE										AS ABOVE						
P-39D-2	6700	-	1850	62	-	1100																					AS ABOVE
	7600	2500	2050	66	1600	1300																					
	7800	2700	2100	68	1750	1350																					
	8150	3000	2200	91	2000	1400																					
	8850	4200	-	-	2600	-																					
P-39F	SIMILAR TO P-39D				AS ABOVE						AS ABOVE										AS ABOVE						
P-39K-1	SIMILAR TO P-39D-2				AS ABOVE						AS ABOVE										AS ABOVE						

NOTES:

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

* 1000 RDS./MIN MAX. FOR GROUND STRAPPING; 300 RDS./MIN NORMAL.

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

MILITARY POWER AVAILABLE FOR 15 MINUTES



P-39
"AIRACOBRA"

MANUFACTURED BY BELL

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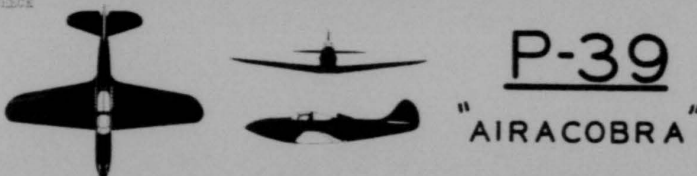
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DATE 23 DEC 1943

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE			
	NUMBER	ENGINE MFGR. MODEL	B.H.P./ALT.	S-SPAN			B-BASIC	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL			EXTERNAL	MAX. LOAD LB.	TYPE
		SUPERCHARGER PROP MFGR. TYPE	T-TAKE-OFF M-MILITARY C-CONTINUOUS	L-LENGTH L-HEIGHT T-TREAD W-WING AREA			C-COMBAT R-RECD LIM W-WAR MAX						NO. & SIZE OR STATION			NO. & SIZE OR CAPACITY		
P-39L-1	1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECTE	T 1325/S L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" T 11' 4" W 213 SQ. FT.	B 6500 C 7900 R 9200 W -	1	WING TOTALS 12-120 PROP.-BELLY 1 x 75 or 1 x 1560 or 1 x 175 295 TOT.	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M4	NONE	1-500 1-325 1-250 1-100	500	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PW-1.			
P-39M-1	1	ALLISON V-1710-83 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. ELECTE	T 1200/S L M 1125/15500 C 1000/11000	AS ABOVE	AS ABOVE	1	AS ABOVE	A S	A B O V E	AS ABOVE	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PW-1.			
P-39N -O TO -5 INCL.	1	ALLISON V-1710-85 SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	T AS ABOVE M AS ABOVE C	S AS ABOVE L EXCEPT 12'5" HT. INS TO W PROPELLER	B 6400 C 7600 R 9200 W -	1	WING TOTALS 8 - 87 PROP.-BELLY 1 x 75 or 1 x 1560 or 1 x 175 262 TOT.	A S	A B O V E	AS ABOVE	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PW-1. * SCR-695 REPLACES SCR-535A ON P-39N-5 ONLY. ** 1st. 166 P-39N-0 BUILT-IN FUEL 120 GAL.			
P-39Q -I TO -20 INCL.	1	AS ABOVE	T AS ABOVE M AS ABOVE C	S AS ABOVE L AS ABOVE T W	B AS ABOVE C AS ABOVE R W	1	AS ABOVE EXCEPT BUILT-IN FUEL P-39Q-1.....87 GAL P-39Q-5.....110 GAL P-39Q-10,15 & 20 120 GAL	2-.50 2-.50 1-37MM	* 250 200 30	AS ABOVE	A S	A B O V E	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PW-1. * GROUND CHARGE (300 ROUNDS PER GUN).			

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' DIST.		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. FT.	LAND. FT.		T.O. FT.	LAND. FT.		HIGH SPEED MPH.	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH.	RATE OF CLIMB FT./MIN.	TIME OF CLIMB MIN.				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
P-39L-1	7000	-	1950	84	-	1150	25000	323	650	309	11.0	9100	NONE	295	-	-	-	-	-	1075	6.0	ALL PERFORMANCE ESTIMATED		
	7400	2500	2000	86	1750	1200	20000	347	1250	330	9.7	8100	NONE	195	100	1.6	350	2.5	325	2.1	-		750	1.2
	7900	3100	2100	89	2050	1300	15000	360	1900	312	6.6	7900	NONE	120	350	0.9	125	1.5	350	1.5	-		550	2.5
	8400	3750	-	-	2500	-	10000	394	2350	311	4.2	8100	NONE	500	200	0.9	275	1.2	350	1.5	-		400	2.3
	9100	5000	-	-	3600	-	5000	335	2900	322	2.1													
P-39M-1	7000	-	1950	84	-	1200	25000	357	1200	313	12.6											AS ABOVE		
	7400	3100	2000	86	2000	1300	20000	365	1775	332	9.5													
	7900	3750	2100	89	2400	1450	15000	370	2400	357	7.1													
	8400	4400	-	-	2500	-	10000	350	2250	337	4.9													
	9100	5500	-	-	3950	-	5000	330	2050	320	2.5													
P-39N -O TO -5 INCL.	6800	-	1850	83	-	1100	25000	368	1175	350	11.9	8750	NONE	262	300	2.0	650	3.5	-	-	-	975	5.4	RANGE AND ENDURANCE OF 1st. 166 P-39N-0 ARTICLES SAME AS P-39Q-10 & -15 LISTED BELOW.
	7600	2550	2050	88	1650	1300	20000	375	1825	355	8.5	8600	NONE	215	450	1.8	775	3.2	-	-	-	900	5.0	
	8100	3050	2150	91	2000	1400	15000	376	2450	366	6.1	8050	NONE	162	350	1.4	585	2.2	525	2.4	-	625	3.3	
	8700	3600	-	-	2350	-	10000	357	2600	345	4.0	7550	NONE	87	175	0.6	300	1.0	300	1.1	-	350	1.7	
	8800	3700	-	-	2400	-	5000	330	2600	320	2.0	8050	500	87	150	0.6	225	1.0	325	1.1	-	375	1.5	
P-39Q -I & -5		AS ABOVE	AS ABOVE					AS ABOVE	AS ABOVE			8900	NONE	225	325	2.1	900	3.7	-	-	-	1075	6.1	PERFORMANCE OF P-39Q-5 SHOWN. PERFORMANCE OF P-39Q-1 SIMILAR TO P-39N SERIES LISTED ABOVE.
												8800	NONE	266	500	2.0	850	3.5	-	-	-	1000	5.6	
												8200	NONE	185	350	1.5	600	2.6	-	-	-	725	4.0	
												7700	NONE	110	250	0.8	400	1.4	325	1.5	-	525	2.3	
												8200	500	110	200	0.8	300	1.3	250	1.5	-	375	2.1	
P-39Q -10 TO -20		AS ABOVE	AS ABOVE					AS ABOVE	AS ABOVE			8950	NONE	295	350	2.2	950	3.9	-	-	-	1100	6.2	ALL PERFORMANCE ESTIMATED
												8850	NONE	276	325	2.1	900	3.7	-	-	-	1050	5.7	
												8250	NONE	195	375	1.6	650	2.8	-	-	-	750	4.3	
												7750	NONE	120	275	0.9	450	1.5	350	1.7	-	575	2.5	
												8250	500	120	200	0.9	350	1.4	275	1.7	-	425	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.

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



P-39
"AIRACOBRA"

MANUFACTURED BY BELL

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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AS OF
DATE 20 DEC. 1943

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 & PER GUN	RDS LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX LOAD LB.			TYPE
P-40E & E-1	ALLISON V-1710-39 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/ S L M 1150/11700 C 1000/10800	S 37'4" L 31'9" H 12'4" T 8'2" W 236 SQ. F.	B 6900 C 8400 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 52 1 x 35 1 x 62 1 x 52	6-.50 (average)	281	WING - FIXED	NONE	1-500 & 2-100 or 6-20. 1-325 1-250 1-100	700	SCR-283 or SCR-274H	TECHNICAL ORDER 01-25CP-1. * NO EXTERNAL WING BOMBS ON EARLY MODELS.	
P-40F -I TO -20 INCL.	PACARD W-1650-1 SINGLE STG.-2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/ S L M 1240/11500 C 1080/9500 1010/16000	S 37'4" L 33'4" H 12'4" T 8'2" W 236 SQ. F.	B 7000 C 8500 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52, 75 150 or 170 327 TOT.	A S	A B O V E	-	A S	A B O V E	AS ABOVE	SCR-274H SCR-522A * SCR-535A or SCR-695	TECHNICAL ORDER 01-25CH-1. * P-40F-1 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE.	
P-40K -I TO -15 INCL.	ALLISON V-1710-73 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1325/ S L M 1150/11800 C 1000/11000	S L H T W	B 6950 C 8400 R 10000 W -	1	AS AB	O V E	A S	A B O V E	-	A S	A B O V E	AS ABOVE	-	TECHNICAL ORDER 01-25CK-1. * P-40K-1 & -5 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE.	
P-40L -I TO -20 INCL.	PACARD W-1650-1 SINGLE STG.-2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/ S L M 1240/11500 C 1080/9500 1010/16000	S L H T W	B 7000 C 8500 R 10000 W -	1	REAR - WING FUSELAGE PROP. - BELLY	1 x 54 1 x 66 1 x 52, 75 150 or 170 321 TOT.	4-.50 (average)	201	AS ABOVE	A S	A B O V E	AS ABOVE	-	TECHNICAL ORDER 01-25CH-1. * P-40L-1 FUEL AND ARMAMENT SAME AS P-40F SERIES.	
P-40M -I TO -10 INCL.	ALLISON V-1710-81 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1200/ S L M 1125/11600 C 1000/13800	S L H T W	B 6950 C 8400 R 10000 W -	1	REAR - WING FRONT - WING FUSELAGE PROP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52, 75 150 or 170 327 TOT.	6-.50 (average)	281	AS ABOVE	A S	A B O V E	AS ABOVE	-	TECHNICAL ORDER 01-25CK-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 ON PERFORMANCE			
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO - PASS.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
	T. O. DIST.	LAND. DIST.	T. O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.	RANGE ENDUR.				
	LB.	FT.	FT.	MPH	FT.	FT.	MPH	FT./MIN.	MPH	FT./MIN.	CLIMB MIN.	LB.	LB.	U.S. GAL.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.						
P-40E & E-1	7500 8100 8400 8700 9100	- 2800 3125 3600 4300	1550 1700 1750 1950 2300	84 87 90 95 95	- 1600 1800 1950 2300	950 1050 1100 1100 1100	25000 20000 15000 10000 5000	- 330 362 345 335	- 980 1150 2170 2100	265 300 312 313 296	520 # # # #	18.2 11.5 7.6 4.8 2.4	9100 8700 9200	NONE NONE NONE	201 149 149	425 325 300	1.7 1.2 1.2	- - - - -	675 525 450	3.0 2.2 2.1	- - - - -	- - - - -	600 650 575	4.5 3.3 3.1		
P-40F -I TO -20 INCL.	7500 8850 9200 9350 9550 10000	- 3700 4350 4200 4700 5200	1700 1900 2150 2850 2700 3125	81 85 85 85 85	- 2200 2150 2150 2150 2150	1050 1300 1350 1350 1350	25000 20000 15000 10000 5000	350 364 352 340 320	1000 1100 1560 2210 2100	500 1000 1500 320 300	18.3 11.6 7.6 4.5 2.4	10000 9550 9200 8850 9550	NONE NONE NONE NONE NONE	327 232 209 157 157	- 350 475 375 325	- 2.0 1.7 1.3 1.3	- 350 575 425 350	- 2.3 2.0 1.8 1.8	- 800 700 500 500	- 3.4 3.0 2.2 2.2	- - - - -	- - - - -	1500 1500 775 700 600	8.0 5.0 4.4 3.1 3.2		
P-40K -I TO -15 INCL.	7500 8800 9150 9300 9500 10000	- 2950 3150 3200 3350	1700 1950 2000 2050 2100	81 85 85 85 85	- 1800 1900 1950 2050	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 9500 9100 8800 9500	NONE NONE NONE NONE NONE	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	- - - - -	- - - - -	1100 1000 900 700 600	7.0 5.5 4.8 3.4 3.3			
P-40L -I TO -20 INCL.	-	SUBSTANTIALLY SAME AS P-40F					8500	SUBSTANTIALLY SAME AS P-40F					10000 9750 9100 8600 9100	NONE NONE NONE NONE NONE	327 291 195 120 120	- - 450 275 285	- - 1.6 0.9 0.9	- - 425 300 350	- - 2.6 1.3 1.3	- - 650 425 350	- - 2.8 1.6 1.6	- - - - -	- - - - -	1500 1500 800 500 425	8.0 6.2 4.1 3.2 3.3	P-40L-1 ONLY SAME AS P-40F SERIES.
P-40M -I TO -10 INCL.	7500 8400 8800 9300 10000	- 2350 2550 3150 4000	1700 1850 1750 2000 2300	81 85 85 85 85	- 1100 1200 1500 1350	1050 1200 1300 1350	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 9500 8800 9300	NONE NONE NONE NONE	327 232 157 157	- 450 325 375	- 1.4 1.2 1.2	- 750 475 375	- 2.9 1.8 1.8	- 775 550 475	- 3.6 2.4 2.3	- - - - -	- - - - -	1300 950 700 575	6.8 5.6 3.6 3.3		

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

NOTES:

RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.
MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.
* MILITARY POWER AVAILABLE FOR 15 MINUTES.



P-40
"WARHAWK"

MANUFACTURED BY CURTISS

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

PAGE 12a
DATE 20 DEC 1945

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT A-REC LIM W-WAR MAX	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.		TYPE
			T-TAKE-OFF M-MILITARY C-CONTINUOUS			NO. & SIZE OR STATION						NO. & SIZE OR CAPACITY				
P-40N-1	1	ALLISON V-1710-21 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	T 1200/8 L M 1125/11600 C 1000/13800	S 37'4" L 33'4" H 12'4" T 8'2" W 236 SQ. FT.	B 6400 C 7725 A 11000 W -	1	REAR - WING FUSELAGE DROPPING - BELLY 1 x 54 1 x 68 150,75, 150 or 175 292 TOT.	L-50	201 (average)	WING - FIXED	NONE	1-500 & 2-100 or 6-20. 1-325 1-250 1-100	500	SCR-274H or SCR-522A & SCR-695	TECHNICAL ORDER 01-250N-1. * PROVISIONS FOR RACES ONLY.	
P-40N -5 TO -15 INCL.	1	AS ABOVE	AS ABOVE	S L AS ABOVE H AS ABOVE T W	B 6700 C 8400 R 11500 W -	1	REAR - WING MOUNT - WING FUSELAGE DROPPING - BELLY DROPPING - WING SEE REMARKS 1 x 54 1 x 37 1 x 70 1 x 75, 150 or 2-225 511 TOT.	6-.50	281 (average)	AS ABOVE	NONE	1-500 & 2-500 or 2-100 or 6-20. 1-325 1-250 1-100	1500	SCR-274H SCR-522A & SCR-695	REFERENCE AS ABOVE * PROVISIONS FOR 2-225 GAL. FERRYING TANKS OR 2-500 LB. OR 2-100 LB. EXTERNAL WING BOMBS IN ADDITION TO 1-500 LB. BOMB IN PLACE OF BELLY TANK. SPACE ONLY FOR 6-20 LB. BOMBS.	
P-40N -20 & -25	1	ALLISON V-1710-99 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	AS ABOVE	S L AS ABOVE H AS ABOVE T W	B AS ABOVE C AS ABOVE R W	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE					
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER			MAX. CRUISE POWER			LONG RANGE						
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.		HIGH SPEED MPH	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH	RATE OF CLIMB FT./MIN.				TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	ENDUR. HOURS		ENDUR. HOURS				
		RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				RANGE MILES	ENDUR. HOURS											
P-40N-1	7000 7725 8250 8425 8850	- 2150 2950 3100 3500	1650 1750 1750 1850 -	92 96 105 - -	1000 1350 1700 1800 1950	7725	25000 20000 15000 10000 5000	357 361 362 365 325	1225 1850 2400 3525 2425	335 344 345 327 308	# # # # #	12.4 9.1 6.7 4.1 2.1	8850 8250 7725 7225	NONE NONE NONE 500	292 197 122 122	- 360 250 210	- 1.5 0.9 0.9	- 500 290 260	2.1 1.2 1.2 1.2	760 430 420	3.6 1.9 2.0	750 625 420	3.5 1.9 2.0	1300 500 500	6.5 2.8 2.8		
P-40N -5 TO -15 INCL.	7000 8400 8900 9100 9500 11400	- 2700 3550 3800 4450 5100	1650 1850 1900 - -	92 100 109 - -	1000 1200 1200 1250 -	8400	25000 20000 15000 10000 5000	353 361 363 366 325	900 1550 2130 3230 2120	330 336 337 320 308	# # # # #	13.0 8.8 6.0 4.7 2.4	11400 9500 8900 8400 8900	NONE NONE NONE NONE 500	511 231 256 161 161	- - 510 380 300	- - 1.8 1.2 1.2	- - 600 410 370	2.5 1.6 1.6	930 590 590	4.3 2.6 2.8	- - - 710 -	- - - - -	2800 - - - -	16.0 - - 3.9 -		
P-40N -20 & -25		AS ABOVE	AS ABOVE				AS ABOVE	AS ABOVE						AS ABOVE	AS ABOVE												NO PERFORMANCE AVAILABLE

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

NOTES:

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



P-40
"WARHAWK"

MANUFACTURED BY CURTISS

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

PAGE 13
AS OF
DATE 17 DEC 1943

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	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-47C-ITO-5 P-47D-ITO-20 P-47G-ITO-16	FRATT-WHITNEY R-2800-21,-59,-65 TURBO SUPERCHARGER CURTISS 12" DIA. - 4BL. CONST. SPD. ELECTR.	T 2000/3 L M 2000/27000 W-2300/27000 C 1625/29000	S 40'9" L 36'11" H 11'2" T 15'6" W 300 SQ. FT.	B 10700 C 13500 R 15000	1	MAIN - PWS. 1 x 205 AUX. - PWS. 1 x 100 PROP. - BELLY 1 x 75 EXT. - BELLY 2 x 150 & 1 x 75 (SEE ***)	6) .50 8) 267 NOR 125 MAX	267 NOR 125 MAX	WING - FIXED	NONE	1-500 or 2-500 or 3-500	1500	SCR-274N SCR-522A & SCR-535A SCR-695	TECHNICAL ORDER 01-658C-1. ** R-2800-21 ENGINE WILL HAVE WAR EMERGENCY RATING WHEN WATER INJECTION EQUIPMENT IS INSTALLED & REDESIGNATED T-2800-65. *** ALL MODELS AFTER P-47D-1 HAVE B-7 SHACKLES FOR BELLY TANKS OF BOMBS. MODELS AFTER P-47D-15 HAVE WING RACKS FOR TANKS OR BOMBS. **** ONLY EARLY MODELS CARRY 200 GAL. DROPPABLE BELLY TANK. MAX. FUEL OF 680 GAL. COMPRISED OF BUILT-IN FUEL PLUS 2-150 EXTERNAL WING TANKS & 1-75 GAL. BELLY TANK, 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 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 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			RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS						
P-47C-ITO-5	11000	-	2200	92	-	1200	30000	420	-	370	800	20.0	16200	NONE	680	900	2.0	950	2.0	-	-	-	-	1735	2.3
P-47D-ITO-20	12500	3100	2500	100	2000	1800	29000	416	1750	360	15.0	15600	NONE	605	800	2.6	850	2.6	-	-	-	-	-	1525	1.3
P-47G-ITO-16 (MILITARY POWER)	13500	3300	2600	104	2300	1700	20000	400	2150	330	11.0	14900	NONE	505	525	2.8	650	2.8	1100	4.3	1125	4.1	1400	5.0	
P-47C-ITO-5	14000	3400	2800	106	2300	1800	15000	384	2200	310	7.2	14300	NONE	420	525	1.8	650	1.8	-	-	-	-	-	1035	4.0
P-47D-ITO-20	15000	3800	-	-	2600	-	10000	368	2300	290	4.3	14100	NONE	380	475	1.6	475	1.6	-	-	-	-	-	805	4.0
P-47G-ITO-16 (WAR EMER POWER)	15000	3800	-	-	2600	-	5000	352	2350	275	2.2	13500	NONE	305	325	1.3	490	1.3	650	2.5	650	2.5	845	3.8	
P-47C-ITO-5							30000	433	1375																
P-47D-ITO-20							25000	421	1825																
P-47G-ITO-16							20000	406	2140																
P-47G-ITO-16 (WAR EMER POWER)							15000	390	2400																
							10000	372	2630																
							5000	353	2750																

NOTES: (A)

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

USED ON:
P-47C-1,-2 & -5
P-47D-1,-2,-3 & -4
P-47G-1,-5 & -10

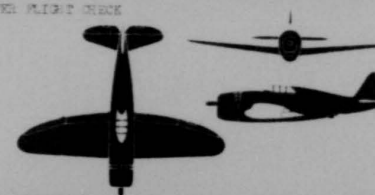
R-2800-59
(WATER INJECTION & NEW
ELECTRICAL HARNESS)

USED ON:
P-47D-20

R-2800-65
(WATER INJECTION)

USED ON:
P-47D-10,-11,-15 & -16
P-47G-15 & -16

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



P-47
"THUNDERBOLT"

MANUFACTURED BY REPUBLIC - CURTISS

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 11,
AS OF:
DATE 11 FEB. 1947

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 MAX		TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE OR STATION	EXTERNAL NO & SIZE OR CAPACITY	MAX. LOAD LB.	TYPE											
																	18	19	20	21	22	23	24	25	26	27
P-51 -1 & -2	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 10'9" DIA. - 3 BL. CONST. SPD. ELECTR.	T 1150/8 L M 1150/13750 C 1000/13750	S 37' 0" L 32' 3" H 12' 2" T 11' 10" W 233 SQ. FT.	B 7050 C 8800 R 10500 W -	1	MAIN-R. WING MAIN-L. WING EXT.-L. WING	1 x 90 1 x 59 1 x 31	1-20MM	125	WING-TYPE M2	NONE	NONE	NO BOMBS CARRIED	SCR-274N & SCR-535	TECHNICAL ORDER 01-607B-1.										
P-51A -1 TO -10 INCL.	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 10'9" DIA. - 3 BL. CONST. SPD. ELECTR.	T 1200/8 L M 1125/16000 C 1000/17500	S AS ABOVE L AS ABOVE H AS ABOVE T AS ABOVE W AS ABOVE	B 6850 C 8600 R 10500 W -	1	MAIN-R. WING MAIN-L. WING EXT.-L. WING	1 x 90 1 x 90 2 x 75 2 x 150	2) .50 2) -	250 350	OUTER-WINGS INNER-WINGS	NONE	2-500 2-250 2-100	1000	SCR-274N* SCR-535** SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-607C-1. * PROVISIONS ONLY ** SPACE PROVIDED										
			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 LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASSES 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.	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		18	19		20	21		22	23	24	25				26	27	28	29	30	31	32	33		34	35	36	37	38
P-51	7500 8000 8500 8800 9000	- 2600 3000 3200 3400	2600 2850 3100 3250 -	88 91 94 -	1700 1900 2100 2250 -	8500	25000 20000 15000 10000 5000	337 367 387 379 357	800 1300 1800 2000 2000	315 333 343 352 352	300 # # # #	16.0 10.9 7.6 5.0 2.5	8600 NONE 180	150	1.5	700	2.6	700	2.7	-	-	1000	4.5					
P-51A -1 TO -10 INCL.	8000 8600 9100 9600 10300	- 2050 2250 2500 2900	2450 2750 3000 3250 -	100 103 106 -	1550 1850 2100 2350 -	8600	25000 20000 15000 10000 5000	475 390 380 360 340	1100 1650 2300 2300 2300	360 375 365 345 325	# # # # #	12.7 9.1 6.6 4.4 2.2	10600 9600 8600 9100 9600	NONE NONE NONE 500 1000	180	1135 725 425 115 110	4.1 2.7 1.4 1.4 1.4	- - - -	2000 1250 750 795 710	8.3 5.3 2.8 2.8 2.8	- - - -	- - - -	2350 1525 1000 950 910	11.4 7.9 4.8 4.7 4.6	PERFORMANCE SHOWN WITH WING RACKS; REMOVAL OF WING RACKS INCREASES HIGH SPEED APPROX. 12 MPH. & RATE OF CLIMB 50' TO 100'/MIN.			

NOTES:

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



P-51
"MUSTANG"

MANUFACTURED BY NORTH AMERICAN

CONFIDENTIAL

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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 OR STATION			EXTERNAL NO. & SIZE OR CAPACITY
P-51B-1 & -5 P-51C-1	1	PACKARD V-1650-3 2SPD.-2 STAGE HAMILTON STD. 11"2" DIA.-3BL. CONST. SP. HYDRO.	T 1300/8 L M 1520/13000 C 1300/24000 1240/16750 1080/27750	S 37' 0" L 32' 3" H 13' 8" T 11' 10" W 233 sq. ft.	B 7300 C 9000 R 11000	1	MAIN-R. WING MAIN-L. WING EXT.- WINGS (SEE NOTE A)	1 x 90 1 x 90 2 x 75 2 x 50 565 TOT.	2) .50 2) 350	280 350	OUTRD.-WINGS INBD.-WINGS	NONE	2-500 2-325 2-250 2-100	1000	SCR-271M* SCR-535* SCR-515** SCR-522 SCR-695 A) KITS AVAILABLE FOR 1-85 GAL. FUSELAGE TANK; WHEN INSTALLED THESE MODELS WILL BE SAME AS ONES LISTED BELOW * WAR EMERGENCY RATINGS: 1830/18100* 1110/29300 (RESTRICTED TO MODELS EQUIPPED WITH K10-RC5/3 or LODGE RS5/2 SPARK PLUGS) * PROV. ONLY ** SPACE PROVIDED	
P-51B-1 & -5 P-51C-1 [FUSELAGE TANK] [SEE REMARKS *]	1	AS ABOVE	AS ABOVE	AS ABOVE	B 7390 C 9650 R 11700	1	MAIN-R. WING MAIN-L. WING FUSELAGE EXT.- WINGS	1 x 90 1 x 90 1 x 85 2 x 75 2 x 50 565 TOT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER AS ABOVE * LAST 500 P-51B-5 MODELS BECAME B-7 UPON ADDITION OF 1-85 GAL. FUSELAGE TANK. P-51C-3 ARE MODIFIED P-51C-1's	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT LB.	TO CLEAR 50' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.			HIGH SPEED MPH	RATE OF CLIMB FT/MIN	HIGH SPEED MPH	RATE OF CLIMB FT/MIN				TIME TO CLIMB MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	
P-51B-1 & -5 P-51C-1 [MILITARY POWER]	8000 9300 9800 10000 10300 11000	- 2100 2300 2420 2550 2900	- 2500 2500 2500 2500 2900	100 103 111 111 111 111	1150 1150 1150 1150 1150 1150	1500 1500 1500 1500 1500 1500	9000	30000 25000 20000 15000 10000 5000	120 122 139 119 798 376	1760 2180 2150 3200 3180 3180	117 102 106 99 365 316	11.2 8.7 6.5 4.6 3.2 1.6	11000 10000 9000 9500 10000	NONE NONE NONE 500 1000	480 330 180 180 180	1300 875 525 485 175	4.6 3.2 1.7 1.7 1.7	1725 1125 850 600 385	5.6 3.8 1.9 2.0 2.0	1800 1200 750 650 635	7.0 5.0 2.8 2.5 2.6	- - - - -	2250 1575 900 825	11.1 8.1 6.2 4.7 4.3	ALL SPEED & CLIMB VALUES ARE FOR AIRPLANE WITHOUT BOMB RACKS. ESTIMATED THAT BOMB RACKS WILL DECREASE HIGH SPEED APPROX. 12 MPH. & RATE OF CLIMB LESS THAN 100'/MIN.	
P-51B-1 & -5 P-51C-1 [WAR EMERG. POWER]		AS ABOVE	AS ABOVE				9000	30000 25000 20000 15000 10000 5000	120 135 139 135 110 788	1760 2140 2500 3250 3580 3260	117 102 106 99 365 316	AS ABOVE			AS ABOVE											HIGH SPEED & CLIMB VALUES ARE FOR WAR EMERGENCY POWER; AIRPLANE WITHOUT BOMB RACKS. BOMB RACKS EFFECT HIGH SPEED & CLIMB APPROX. AS LISTED ABOVE.
P-51B-7 & -10 P-51C-3 [MILITARY POWER] [FUSELAGE TANK]	8100 8600 9650 10650 11700	- 1800 2250 2700 3250	2500 2600 2850 2000 2500	100 103 109 109 109	1150 1150 1150 1150 1150	1500 1500 1500 1500 1500	9650	30000 25000 20000 15000 10000 5000	128 128 137 117 796 374	1760 1950 2280 2940 2920 2890	117 102 106 99 365 316	12.5 9.7 7.2 5.2 3.5 1.8	11700 10700 9600 10100 10600	NONE NONE NONE 500 1000	565 415 265 265 265	1175 975 725 700 650	5.1 3.5 2.4 2.4 2.4	1775 1300 850 800 750	5.6 4.1 2.4 2.4 2.4	2200 1575 1125 1050 975	8.7 6.3 4.3 3.8 3.4	- - - - -	2600 1800 1350 1275 1200	11.2 8.0 6.5 6.5 6.3	ALL SPEED & CLIMB VALUES ARE FOR AIRPLANE WITHOUT BOMB RACKS. ESTIMATED THAT BOMB RACKS WILL DECREASE HIGH SPEED APPROX. 12 MPH. & RATE OF CLIMB LESS THAN 100'/MIN.	
P-51B-7 & -10 P-51C-3 [WAR EMERG. POWER] [FUSELAGE TANK]		AS ABOVE	AS ABOVE				9650	30000 25000 20000 15000 10000 5000	128 138 137 132 109 328	1760 2160 2250 2970 3320 3290	117 102 106 99 365 316	AS ABOVE			AS ABOVE											HIGH SPEED & CLIMB VALUES ARE FOR WAR EMERGENCY POWER; AIRPLANE WITHOUT BOMB RACKS. BOMB RACKS EFFECT HIGH SPEED & CLIMB APPROX. AS LISTED ABOVE.

NOTES:

SEE FIGURES AND FOOTNOTES; SUBJECT TO REVISIONS & T.O. 11-11-50

* MILITARY POWER AVAILABLE FOR 15 MINUTES.



P-51
"MUSTANG"

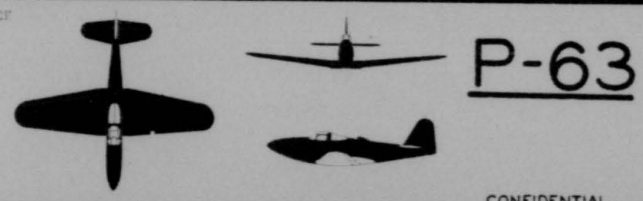
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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PAGE 15 AS OF DATE 18 DEC 1943																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		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 A-REC.D.L.M. 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			
P-63A -1 & -5	1	ALLISON V-1710-93 2 - STAGE AERO PRODUCTS 11" DIA. - 4 BL. CONST. SPD., HYDR.	T 1325/ S L M 1150/21,200 W 1500/ S L C 1000/20000	S 38'4" L 32'8" H 12'3" T 11'7" W 2 1/2 SQ. F.	B 6925 C 8350 A 8900 W -	1	MAIN-WING DROOP-BELLY	2 x 68 1 x 75 1 x 77 311 TOT.	1-37MM 2-.50 2-.50	30 250 200	PROP.-TYPE M, WING - FIXED NOSE - FIXED	NONE 1-500 1-325 1-250 1-100	500	SCR-274B & RD-196ver SCR-522 & XTROLA # 438 AND SCR-577	TECHNICAL ORDER OI-110PP-1 WAR EMERGENCY RATING	
COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17																

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE		
	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS-CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER				MAX. CRUISE POWER				LONG RANGE			
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.		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. HOURS	ENDUR. HOURS		ENDUR. HOURS	ENDUR. HOURS
P-63A -1 & -5	7300	-	1720	-	-	1060	30000	392	1150	350	11.0	9470	NONE	311	500	3.2	-	-	1100	4.9	-	-	1100	7.5	
	7700	1700	1800	-	-	1070	25000	401	2200	365	6.2	8500	NONE	211	500	2.1	-	-	700	3.2	-	-	950	4.8	
	8000	1660	1900	-	-	1180	20000	368	2670	370	6.2	8260	NONE	136	500	1.3	-	-	550	2.1	-	-	700	3.2	
	8300	2140	-	-	-	1320	15000	372	3270	335	4.6	8050	NONE	100	250	0.9	-	-	350	1.4	-	-	500	2.2	
[MILITARY POWER]	8700	2520	-	-	-	1520	10000	355	3270	325	3.1	8800	500	136	350	1.3	-	-	450	2.0	-	-	500	3.0	
P-63A -1 & -5							30000	392	1150	350	11.0														
							25000	401	2200	365	6.2														
							20000	368	2670	370	6.2														
							15000	372	3270	335	4.6														
							10000	355	3270	325	3.1														
							5000	336	3270	315	1.5														
							30000	392	1150	350	11.0														
							25000	401	2200	365	6.2														
							20000	368	2670	370	6.2														
							15000	372	3270	335	4.6														
							10000	355	3270	325	3.1														
							5000	336	3270	315	1.5														
HIGH SPEED & CLIMB VALUES ARE FOR WAR EMERGENCY POWER; NO EXTERNAL RACKS.																									
NOTES:																									
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.																									
* MILITARY POWER AVAILABLE FOR 15 MINUTES.																									



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**GLIDER AND
TOWPLANE SECTION**

31-DECEMBER-1943

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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 balance 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.

DEFINITIONS

<u>LOADING:</u>	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.
<u>TAKE-OFF:</u> (To clear 50' object)	DISTANCES REPRESENTATIVE OF MINIMUM AIRPORT REQUIREMENTS.
TAKE-OFF SPEED:	NORMAL FOR AVERAGE PILOT.
GROUND RUN:	DISTANCES REPRESENTATIVE OF MAXIMUM RUNWAY REQUIREMENTS.
<u>CLIMB:</u> (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.
<u>RANGE & ENDURANCE:</u>	(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

PAGE 1
AS OF:
22 DEC. 1943

BOMBER TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE (AT CRUISING POWER) STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				MAX TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (M.P.H.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)	RADIUS (MI.)									TIME OUT (HRS.)	TIME BACK (HRS.)	RANGE (MI.)		ENDUR. (HRS.)		
	(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.)	(MI.)	(HRS.)			
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	6650	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	6200	115	3475	140	550	12000*	24	870	6.3	5.3	5000	1360	9.7	* LIMITED- NO OXYGEN IN GLIDER	
	7500	3800	59000	6000	2344	150	675	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	

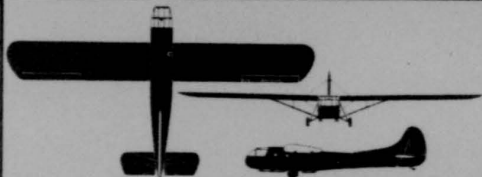
COLUMN— 1

NOTES:

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

SEE FIGURES AND PARAGRAPHS, CHAPTER IV, CONTAINS AFTER SERVICE CHECKS.

GLIDER CHARACTERISTICS

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

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 2
AS OP
22 DEC. 1943

CARGO TOWPLANE AND CG-4A GLIDER


TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE (AT CRUISING POWER) STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (M.P.H.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVCE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)	RADIUS (MI.)									TIME OUT (HRS.)	TIME BACK (HRS.)	RANGE (MI.)		ENDUR. (HRS.)		
C-46A & (1)CG-4A	7500	3800	45000	3000	1400	150	3190	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	445	3.9	2.8	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	6175	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	6950	85	5550	105	125	8000	5.7	395	3.7	3.3	2000	518	4.5	* TO 3000 FT. ALTITUDE	
	7500	3800	31000	8000	804	150	7350	90	4450	105	80	-	3.8*	370	3.4	3.1	1000	470	4.4		
C-60A & (1)CG-4A	7500	3800	17500	500	644	150	3425	85	2450	120	600	12000*	3.4	610	5.0	4.2	5000	990	8.3	* LIMITED- NO OXYGEN IN GLIDER	
	7500	3800	21500	3500	644	150	5125	85	3675	120	320	11500	4.8	410	3.4	2.8	5000	560	4.7		
C-60A & (2)CG-4A	4700	1000	17500	500	644	150	5850	85	3850	120	270	9300	4.0	380	2.9	2.6	5000	570	4.8		
	7500	3800	17500	500	644	150	6550	85	4250	120	220	8500	4.3	350	3.0	2.5	5000	500	4.0		

NOTES:

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

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

GLIDER CHARACTERISTICS

WEIGHT		SIZE
B-BASIC		S-SPAN
C-COMBAT		L-LENGTH
W-WAR MAX.	H-HEIGHT	
	T-TREAD	
	W-WING AREA	
TYPICAL GLIDER CAPACITIES		
B- (3700 [±] 4500)	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	S- 83'8"
C- 7500	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	L- 48'4"
W- 9000	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(15 RES.)	H- 12'7"
		T- 9'11"
		W- (Tact. gear) 852 SQ. FT.

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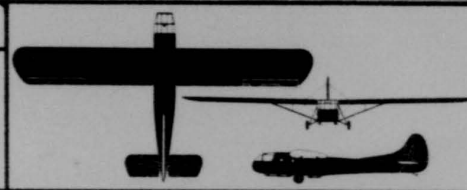
TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 3
AS OF:
22 DEC. 1945

FIGHTER TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE (AT CRUISING POWER) STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS			TOWPLANE			MAX TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (M.P.H.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVCE 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
P-38G & (1) CG-4A	7500	3800	15500	NONE	300	150	4000	110	3250	120	1000	12000*	15	270	2.2	1.6	5000	400	3.2	* LIMITED- NO OXYGEN IN GLIDER; SERVICE CEILING OF 20000 ft. CAN BE REACHED IN 40 MINUTES IF OXYGEN IS INSTALLED IN GLIDER.	

NOTES: (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 dated 1 DEC. 1943.
(2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

GLIDER CHARACTERISTICS		
WEIGHT		SIZE
B-BASIC		S-SPAN
C-COMBAT		L-LENGTH
W-WAR MAX		H-HEIGHT
		T-TREAD
		W-WING AREA
TYPICAL GLIDER CAPACITIES		
B- (3700 to 11500)	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	S- 83'8"
C- 7500	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	L- 48'4"
W- 9000	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RDS.)	H- 12'7"
		T- 9'4"
		W- (Tact. gear) 852 Sq. ft.

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