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EE-393

TACTICAL PLANNING

Characteristics & Performance Chart

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

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BOMBERS

CARGO

FIGHTERS

GLIDERS

JANUARY -1945

Important
SEE PAGE 2A

Y-128390

WF. Area B-12-27-44-958

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RETURN TO
RESEARCH DIVISION

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FOREWORD

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

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

WARNING

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

Performance is based on the requirements of Army-Navy Aeronautical Specification AN-H-8a; "Handbooks, Pilot's Flight Operating Instructions" which sets forth specific allowances for practical service operation. Take off and landing distances are 125% of optimum 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 for 10% net ideal range and endurance for miscellaneous differences in airplanes, equipment, pilot technique, atmospheric conditions other than wind, unusable fuel, weight, and similar variables. (For example, range varies day and night due to fuel expansion prior to take off.)

Prepared by Technical Data Laboratory of the Engineering Division

THIS REPORT SUPERSEDES PREVIOUS EE-393 PUBLICATIONS; SUPERSEDED PUBLICATIONS, IF NO LONGER OFFICIALLY REQUIRED, WILL BE DESTROYED IN THE MANNER PRESCRIBED IN PARAGRAPH 23, A.R.380-5.

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DEFINITIONS

CHARACTERISTICS		PERFORMANCE
SUPERCHARGER:	"TURBO" indicates exhaust driven turbine with single speed integral diffuser.	BOMBS: Maximum rack capacity for standard sizes.
BHP/ALT:	Brake horsepower per engine at critical altitude with ram.	CARGO: Cargo, passenger or troop capacities.
T:	Maximum power for take off.	Max. load: One size only on each bomb rack (in some cases a reduction in fuel load is required)
M:	Maximum power for combat at altitude shown, (usually limited to 15 min. duration)	Practical total cargo based on gross weight.
WE:	War emergency power for combat at altitude shown, (limited to 5 min. duration only)	Values are at least 125% of optimum.
C:	Maximum power for continuous operation.	TAKE OFF & LANDING: (At 3000' runway alt.)
Note:	Maximum cruise power is the maximum power for unlimited operation with lean mixture.	Gross weight: (To clear 50')
SIZE:	Approximate dimensions for storage planning.	Ground run: Arbitrary values for reference only.
Length:	Does not include protruding guns.	Landing speed: Distances representative of minimum airport requirements.
Height:	Maximum in three point position.	Distances representative of minimum runway requirements.
Wing area:	Standard aerodynamic surface area.	Practical minimum for average pilot.
Tread:	Center to center main wheels: (outboard if dual).	HIGH SPEED & CLIMB: Values are for clean new airplanes.
WEIGHTS:	Approximate averages for planning purposes.	Military power: For limited periods of combat operation.
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.	War emergency power: (Performance with War Emergency ratings are shown when applicable).
C:	Combat weight is based on latest confirmed information from theaters and usually includes full built in fuel, full ammunition, and an arbitrary bomb or cargo load.	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.
W:	War maximum weight for special missions, limited by structural considerations, based on a positive maneuver factor of 2.0 unless otherwise noted.	RANGE & ENDURANCE: See discussion in "FOREWORD", page 2
FUEL:	Standard fuel tankage and capacities.	Take off weight: Brief list of typical gross weights.
ARMAMENT:	Resume' of information in the "ARMAMENT & BOMB INSTALLATIONS" (Chart EE-306A)	Bombs, etc: Typical loadings combined with various tank capacities. No consideration is given to loadings requiring partially filled tanks.
RADIO	Resume' of typical models installed	Note: Take off weights with corresponding load and fuel quantity applies to all values to the right on the same line.
		Max. cont. power: High speed cruising with rich mixture. (For emergency cruising only)
		Max. cruise power: Maximum continuous operation with lean mixture setting.
		Long range: Practical maximum range for planning purposes under all conditions set forth.

RED PRINT: Preliminary estimates or calculated data.

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BOEING (SEATTLE) "BO"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-BO (-1 thru -27)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2/- 100	NONE	9600	2550
B-17F-BO (-30 thru -50)	NONE 1) 2) 2) 2)	NONE 300 b 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2/- 100	2-4000 2-2000 2-1600 2-1000	6-1600 2-4000x	AS ABOVE
B-17F-BO -55 thru 1st.30(-85)	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	A S	A B O V E		2550 (-55 thru -75) 3630 -80 & SUB.
B-17F-BO last 70(-85) thru -130	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE EXCEPT THAT EXTERNAL BOMB RACKS DELETED AFTER 15th.(-95)			3630
B-17G-BO (-1 thru -110)	2) 2) 1) 2) 2) 2)	300 365 300 500 d 400 500 565	CREEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2/- 100	PROVISION FOR RACKS	9600	AS ABOVE

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

DOUGLAS (LONG BEACH) "DL"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-DL -1 thru 1st.13(-10)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2/- 100	NONE	9600	2550
B-17F-DL last 12(-10) thru -20	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS ON -20 & SUB.		AS ABOVE
B-17F-DL -25 thru 1st.21(-35)	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS		3630
B-17F-DL last 19(-35) thru -65	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	A B O V E		AS ABOVE
B-17G-DL (-1 thru -70)	2) 2) 1) 2) 2) 2)	300 365 300 500 d 400 500 565	CREEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	A B O V E		AS ABOVE

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

VEGA (BURBANK) "VE"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-VE (-1 thru -10)	1-.30 CAL.(300 RDS.) IN 1st. 12 AIRPLANES; DELETED ON NEXT 28 THRU (-10). NO RADIO COMPARTMENT GUN UNTIL LAST 14(-15). OTHER ARMAMENT AS B-17F.	300 300 400 500 565	NOSE GUN RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2/- 100	NONE	9600	2550
B-17F-VE (-15 & -20)	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	EXTERNAL RACKS ON 1st 31 (-20) & SUB.		AS ABOVE
B-17F-VE (-25 & -30)	A S	A B O V E		AS ABOVE		2-4000 2-2000 2-1600 2-1000	2550 (B-17F-25) 3630 (B-17F-30)
B-17F-VE (-35 thru -50)	3) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	NONE	9600	3630
B-17G-VE (-1 thru -90)	2) 2) 1) 2) 2) 2)	300 365 300 500 d 400 500 565	CREEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW-BALL TRR. TAIL...FLEX.MT.	AS ABOVE	PROVISION FOR RACKS	AS ABOVE	AS ABOVE

NOTES: a NOT ON B-17F-1 & -5. d EARLY B-17G MODELS CARRIED 300 RDS./GUN.
b EXTERNAL BOMB RACKS DELETED ON LAST 14(-30).
c CREEK GUNS ADDED AT MOD. CENTER. x EXTERNAL

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

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 5
AS OF:
DATE 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL	B.H.P./ALT.				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-17 ^f	WRIGHT B-1820-97 TURBO HAMILTON STD. 11"7" DIA. - 3BL. F.P. HYDROMATIC	T 1200/5 L M 1200/27000 W 1360/25000 C 1000/30000	S 103'9" L 74'9" H 19'1" T 21'2" W 1120 SQ. FT.	B 36000 C 55000 W 65000	10	MAIN - WINGS BOMB BAY	6-1730 2x 110 2550 TOT	2) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	2-2000 6-1600 6-1000 12- 500 16- 250 2-1000	2-1000 2-2000 2-1600 2-1000	C 6-1600 b 2-1000	17600	SEE NOTE (B)	TECHNICAL ORDER 01-2087-1. (REV. 10 NOV. 1944) b EXTERNAL BOMBS ON SOME MODELS ONLY. ** WAR EMERGENCY POWER PERMITTED ONLY WHEN CARBURATORS MODIFIED TO PARTS LIST NO. 395563-3.
B-17F (WITH WING TIPTANKS)	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	10	MAIN - WINGS WING TIPS BOMB BAY	6-1730 2x 510 2x 110 3650 TOT	2) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
B-17G	AS ABOVE	T 1200/5 L M 1200/32700 W 1360/27000 C 1000/35200	S 103'9" L 74'4" H 19'1" T 21'2" W 1120 SQ. FT.	AS ABOVE	10	AS ABOVE EXCEPT PROVISIONS ONLY FOR THE BOMB BAY TANKS	6-1730 2x 510 2x 110 3650 TOT	2) 2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE - FLEX. SIDE WAIST-FL. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL - FLEX. MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-2086-1. (REV. 5 NOV. 1944) a EARLY MODELS CARRIED 300 HIG. PER GUN. b EARLY B-17G'S HAD B-2 TURBO GIVING CRITICAL ALTITUDE AS SHOWN FOR B-17F. c EARLY MODELS HAD LENGTH OF 71'9". ** WAR EMERGENCY POWER PERMITTED ONLY WHEN CARBURATORS MODIFIED TO PARTS LIST NO. 395563-3.

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT										RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		STD ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS 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.		WEIGHT LB.	HIGH SPEED MPH.	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH.	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH.				RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	RANGE MILES.	ENDUR. HOURS.	RANGE MILES.	ENDUR. HOURS.	RANGE MILES.	ENDUR. HOURS.	RANGE MILES.	
B-17F	40000 50000 55000 56000	- - 3950 4100	3900 4750 5200 -	90 100 104 105	- - 3050 3150	2000 2700 3050 -	30000 25000 20000 15000 10000 5000	310 302 291 280 269 258	400 665 825 975 1075 1175	350 590 750 900 1000 1100	265 385 485 580 620 7.0	54.0 37.0 26.0 16.0 7.0	65500 59500 53500 46500 39000	NONE NONE 4000 6000 6000	3630 2810 2810 2610 1730	11.00 11.00 11.00 8.50	6.3 6.3 6.3 3.8	1500 1150 ^b 1800 850	6.2 6.2 ^b 9.8 3.8	2000 1950 1800 1200	10.0 10.0 9.8 6.0	2350 1850 ^b -	8.6 8.7 ^b -	3100 ^a 2550 2350 2250 1450	17.1 ^a 14.4 13.0 12.5 8.1	MAX. PERFORM RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION. OIL CONSUMPTION 34.5 TO 36.5 GAL PER HR. DEPENDING ON TIME SINCE OVERHAUL. ^a FIRST PART FLIGHT AT 20000 FT. ALTITUDE.
B-17F (WITH WING TIP TANKS)	PERFORMANCE SLIGHTLY BETTER THAN B-17G SHOWN BELOW																									
B-17G	PERFORMANCE SLIGHTLY BETTER THAN B-17G SHOWN BELOW																									

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

NOTES: (B) 24 VOLT RADIO SYSTEM

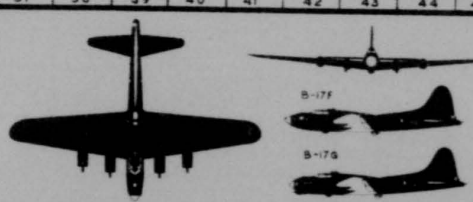
SCR-211 FREQUENCY METER
SCR-269G RADIO COMPASS
SCR-27LN COMMAND SET
SCR-287A LIAISON SET
SCR-695 SET (or SCR-595)
SCR-578 EMERGENCY TRANSMITTER
RC - 32 FILTER EQUIPMENT (or RC-198)
RC - 32 INTERPHONE AMPLIFIER
RC - 13B MARKER BEACON
RC - 103 BLIND LANDING (Provisions only)
SCR-522 COMMAND SET

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

(A) TREATISE REPORTS INDICATE LOADINGS IN EXCESS OF 65000 LB. ARE BEING USED. IT IS ABSOLUTELY ESSENTIAL THAT WING FUEL & OIL TANKS ARE FULL AT THESE WEIGHTS & THAT MANEUVERS BE KEPT TO A MINIMUM.

(C) LATEST INVESTIGATION SHOWS THAT 8x1600 LB. ARMOR PIERCING BOMBS MAY BE CARRIED BUT BOMB RAIL LOAD FACTORS & CLEARANCES ARE REDUCED & MANEUVERING OF AIRPLANE MUST BE LIMITED ACCORDINGLY.

MANUFACTURED BY BOEING - DOUGLAS - VEGA



B-17
"FORTRESS"
Y-128390
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CONSOLIDATED (SAN DIEGO) "CO"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24D-CO D thru 1st. 94(-15)	1) 2) 2)	200 .50 600	NOSE.....FLEX. UPPER TURRET TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	2364
B-24D-CO Last 36(-15) thru -20	1) 2) 1) 2)	200 400 100 600	NOSE.....FLEX. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	A S	A B O V E		2364 Last 36(-15) 3614 -20 & sub.
B-24D-CO -25 thru 1st. 26(-110)	3) 2) 1) 2)	100 250 400 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	3614
B-24D-CO Last 9(-110) thru -170	3) 2) 2) 2)	100 250 400 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24L-CO (-1 thru -210) B-24M-CO (-1 thru -20) B-24N-CO (-1 thru -50)	2) 2) 2) 2)	600 250 ^b 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. See "c"	A S	A B O V E		AS ABOVE

NOTES: c B-24L's HAVE TAIL TURRET; B-24L's HAVE HAND HELD GUNS IN TAIL & NOT ON B-24D-25 B-24M's HAVE LIGHT WEIGHT TAIL TURRET.
b 8-6 MOUNT & INCREASE TO 500 RDS/GUN ON -210.

CONSOLIDATED (FT. WORTH) "CP"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24J-CF (-1 & -5)	3) 2) 1) 2)	100 .50 400 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET TUNNEL...FLEX. TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24J-CF (-10 thru -20)	A S	A B O V E		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-CF (-1 thru -105) B-24K-CF (-1 thru -15)	2) 2) 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E (SEE a)		AS ABOVE
B-24J-CF (-20 thru -30)	2) 2) 2) 2)	600 500 ^b 400 508 600	NOSE TURRET S.WAIST..K6 MT. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B C V E		AS ABOVE
B-24J-CF (-101 to -)	A	S	A	B	O	V	E

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

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

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

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

NORTH AMERICAN (DALLAS) "NT"

MODEL & BLOCK-NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-24G-NT (-1 thru -5)	3) 2) 2) 2)	230 TOT. 250 .50 400 508 600	NOSE.....FLEX. SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24G-NT (-1 thru -5)	2) 2) 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST..FL. UPPER TURRET LOW.BALL TRR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24G-NT (-10 thru -15)	A S	A B O V E		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-NT (-1 thru -10)	A	S	A	B	O	V	E

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

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 7
AS OF:
DATE 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT R-RECOIL W-WAR MAX.			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY		
B-24D (WITH BOMB BAY TANKS)	PRATT-WHITNEY R-1830-L3 TURBO HAMILTON STD. 11.7" DIA. - 3 BL. F.P., HYDROMATIC	T 1200/SL M 1200/26500 C 1100/27000	S 110'0" L 56'1" H 18'0" T 25'8" W 104.6 Sq. Ft.	B 35000 C 56000 R 56000 W 67600	10	MALD - WINGS BOMB BAY	12-2364 2x 400 3164 TOT.	3) 2) 2) 1) 2)	100 250 400 100 600	NOSE - FLEX. SIDE WAIST-FL. UPPER TURRET TURREL - FLEX. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12500	SEE NOTE "A"	TECHNICAL ORDER 01-58C-1 (REV. 5 OCT. 1944)
B-24D (WITH WING TIP TANKS)	AS ABOVE EXCEPT R-1830-65 ENGINE ON B-24L-20-CF & B-24L-135-CG TREC -170-CO.	AS ABOVE	AS ABOVE	B 37000 C 56000 R 56000 W 71100B	10	MALD - WINGS WING TIPS BOMB BAY	12-2364 2x 225 2x 400 3614 TOT.	3) 2) 2) 2) 2)	100 250 400 508 600	NOSE - FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	A S A B O V E	
B-24G,H&J	PRATT-WHITNEY R-1830-65* TURBO HAMILTON STD. 11.7" DIA. - 3 BL. F.P., HYDROMATIC	AS ABOVE SEE "b"	AS ABOVE	B 38000 C 56000 R 56000 W 71100B	10	AS ABOVE	AS ABOVE	2) 2) 2) 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	A S	A B O V E	AS ABOVE	SEE "a"	TECHNICAL ORDER 01-58E-1 (30 NOV. 1944) * ENGINE IS R-1830-L3 ON B-24G & G-1-WT; B-24H-1 & (152)B-5-CF; B-24F-1 & -5-FG; ALL B-24L BY DT. * LATEST AIRCRAFT HAVE NEW TURBO SUPERCHARGER TYPE (B-24L GIVING CRIT. ALTITUDE SAME AS SHOWN FOR B-24L & M. * FEW EXTERNAL BOMB BAYS BEING INSTALLED AT MOD. CENTERS. REVISION TO REFERENCE ABOVE NOW BEING PRINTED. * B-24L SERIES HAS HAND HELD FLEX. GUNS IN THE TAIL. * B-24M SERIES HAS LIGHT WEIGHT TURRET IN TAIL.
B-24L&M	PRATT-WHITNEY R-1830-65 TURBO HAMILTON STD. 11.7" DIA. - 3 BL. F.P., HYDROMATIC	T 1200/SL M 1200/31800 C 1100/31500	AS ABOVE	B 37500 C 56000 R 56000 W 71100B	10	AS ABOVE	AS ABOVE	2) 2) 2) 2) 2)	600 500 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TURRET See note "a"	A S	A B O V E	AS ABOVE	AS ABOVE	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT				RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE											REMARKS ON PERFORMANCE						
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. 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.	AT 10000 FT.	AT 25000 FT.			
B-24D (WITH BOMB BAY TANKS)	40000 51000 59000 60000	- 1500 6200 6600	3300 4200 - -	90 103 - -	2800 3450 - -	56000	30000 25000 20000 15000 10000 5000	- 305 290 277 254 254	550 900 1000 1150 1200 1200	350 297 284 272 259 246	41.5 30.2 22.0 15.4 9.7 4.2	59000 53500 38500	NONE NONE 5000	3164 2364 2364	1200 900 850	4.8 3.6 3.6	1350 1000 950	4.8 3.5 3.5	2400 1800 1750	10.9 8.1 8.0	2500 1900 1800	10.3 7.6 7.5	3200 2450 2300	18.0 13.7 13.0		
B-24D (WITH WING TIP TANKS)	40000 56000 59000 60000 62000 64000	- 1500 6200 6600 7550 8750	3300 4300 - - - -	90 105 - - - -	2800 3550 - - - -	56000	30000 25000 20000 15000 10000 5000	300 290 277 254 254	375 625 775 900 975 1025	290 278 267 256 245 235	16.0 33.6 25.0 17.6 11.4 5.3	64500 61000 61500 60500	NONE NONE 3000 5000	3614 3164 2814 2364	- 1200 1050 850	4.8 4.1 4.1 3.6	1350 1200 950	4.8 4.1 3.5	2400 2050 1750	10.9 9.5 8.0	2500 2200 1800	10.4 9.2 7.5	3500* 3200 2750 2300	20.0* 18.0 15.4 13.0	*MAX. FERRY RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION OIL CONSUMPTION 3 QT. to 5 GAL./HR. DEPENDING ON TIME SINCE OVERHAUL. **PERFORMANCE DATA ABOVE 65000 LB. NOT YET AVAILABLE; SEE NOTE "B"	
B-24G,H&J	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	56000	30000 25000 20000 15000 10000 5000	300 290 277 254 254	375 625 775 900 975 1025	290 278 267 256 245 235	16.0 33.6 25.0 17.6 11.4 5.3	65000** 62000 62500 61500	NONE NONE 3000 5000	3614 3164 2814 2364	- 1150 1000 850	4.2 4.1 3.5	1350 1200 950	4.8 4.1 3.5	2200 1900 1600	10.7 9.5 7.9	2300 1950 1700	10.2 8.8 7.3	3300* 2900 2500 2100	18.2* 16.4 14.0 11.7		
B-24L&M	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	56000	30000 25000 20000 15000 10000 5000	300 290 277 254 254	375 625 775 900 975 1025	290 278 267 256 245 235	16.0 33.6 25.0 17.6 11.4 5.3	64500 61500 62000 61000	NONE NONE 3000 5000	3614 3164 2814 2364	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		

NOTES: (A)

24 VOLT RADIO SYSTEM

SCR-211 FREQUENCY METER
SCR-222 COMMAND SET
SCR-2599 RADIO COMPASS
SCR-271A COMMAND SET
SCR-287A LIAISON SET
SCR-595 IFF (or SCR-595)
SCR-578 EMERGENCY TRANSMITTER
RC - 32 FILTER EQUIPMENT (or RC-198)
RC - 36 INTERPHONE AMPLIFIER
RC - 438 MARKER BEACON
RC-103 BLEND LANDING (Provisions only)
AN/AAR-1 RECEIVER (Installed in some models)

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

* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

(B) TREATMENT REPORTS INDICATE LOADINGS IN EXCESS OF 65000 LB. ARE BEING USED. IT IS ABSOLUTELY ESSENTIAL THAT WING FUEL & OIL TANKS ARE FULL AT THESE WEIGHTS & THAT MANEUVERS BE KEPT TO A MINIMUM.



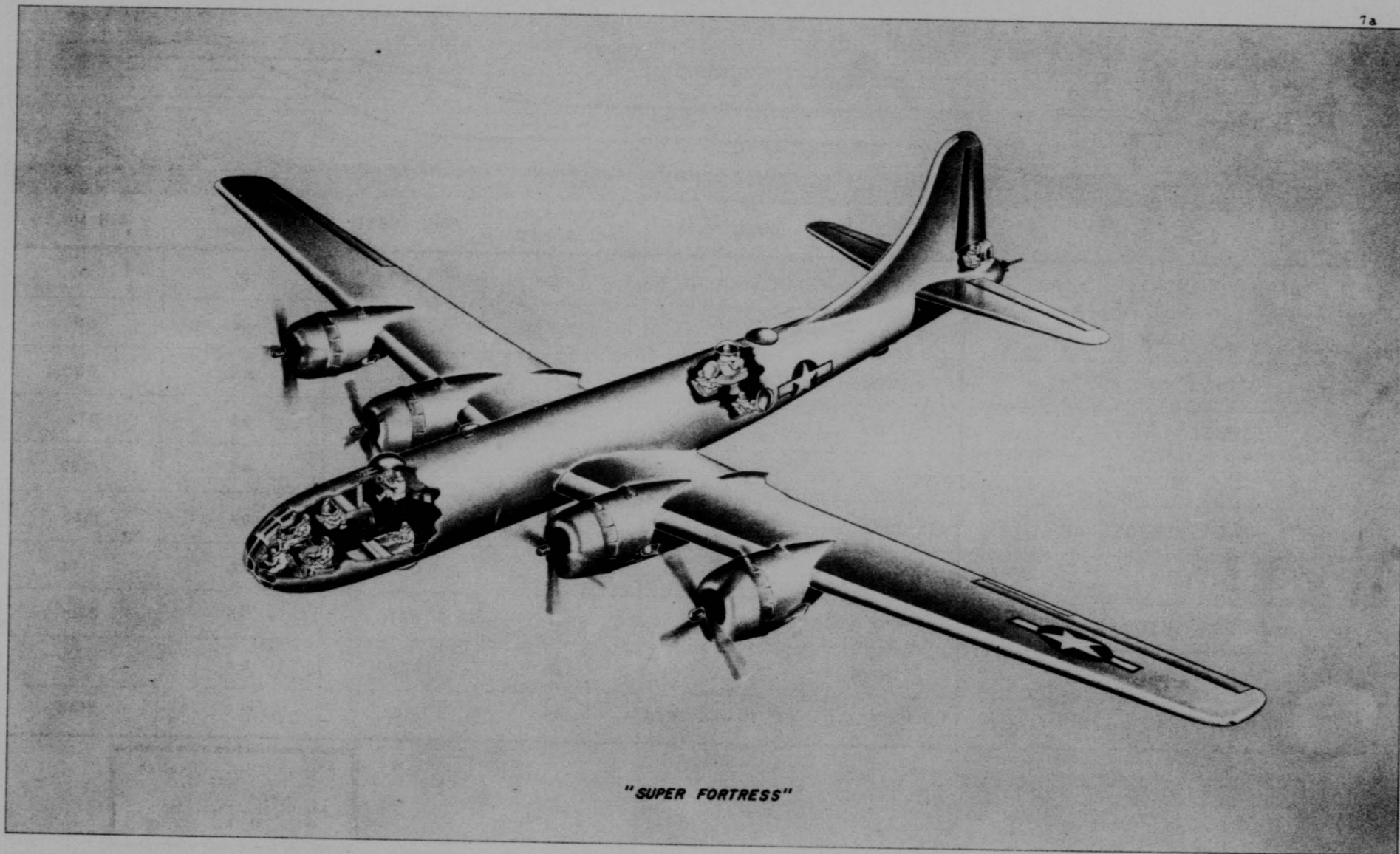
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"LIBERATOR"

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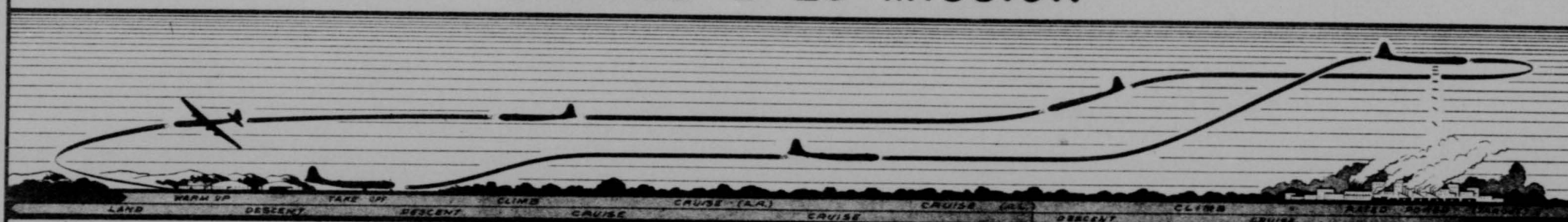
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SAMPLE B-29 MISSION

	DENSITY ALTITUDE	COWL FLAP	INDICATED AIR SPEED	FUEL USED	TIME IN FLIGHT	AIR MILES
WARM UP AND TAKE OFF	0 TO 100	WIDE OPEN TO 7.5°	0-180	160	0	0
CLIMB	100 TO 5000	9°	195	330	0.2	38
CRUISE (A.R.)	5000	1.7°	202	1330	2.4	500
CRUISE (A.L.)	5000	1.7°	198	2500	5.5	1172
CLIMB	5000 TO 30000	9°	195	3530	6.5	1463
RATED POWER (TARGET AREA)	30000	7°	206	3810	6.8	1563
CRUISE	30000	7°	185	4290	7.5	1780
CRUISE DESCENT	30000 TO 15000	3.5°	186	4970	9.5	2305
CRUISE	15000	3.5°	186	5600	11.4	2755
DESCENT AND LAND	15000 TO 0	17° TO WIDE OPEN	184	6142	13.6	3132

NOTE

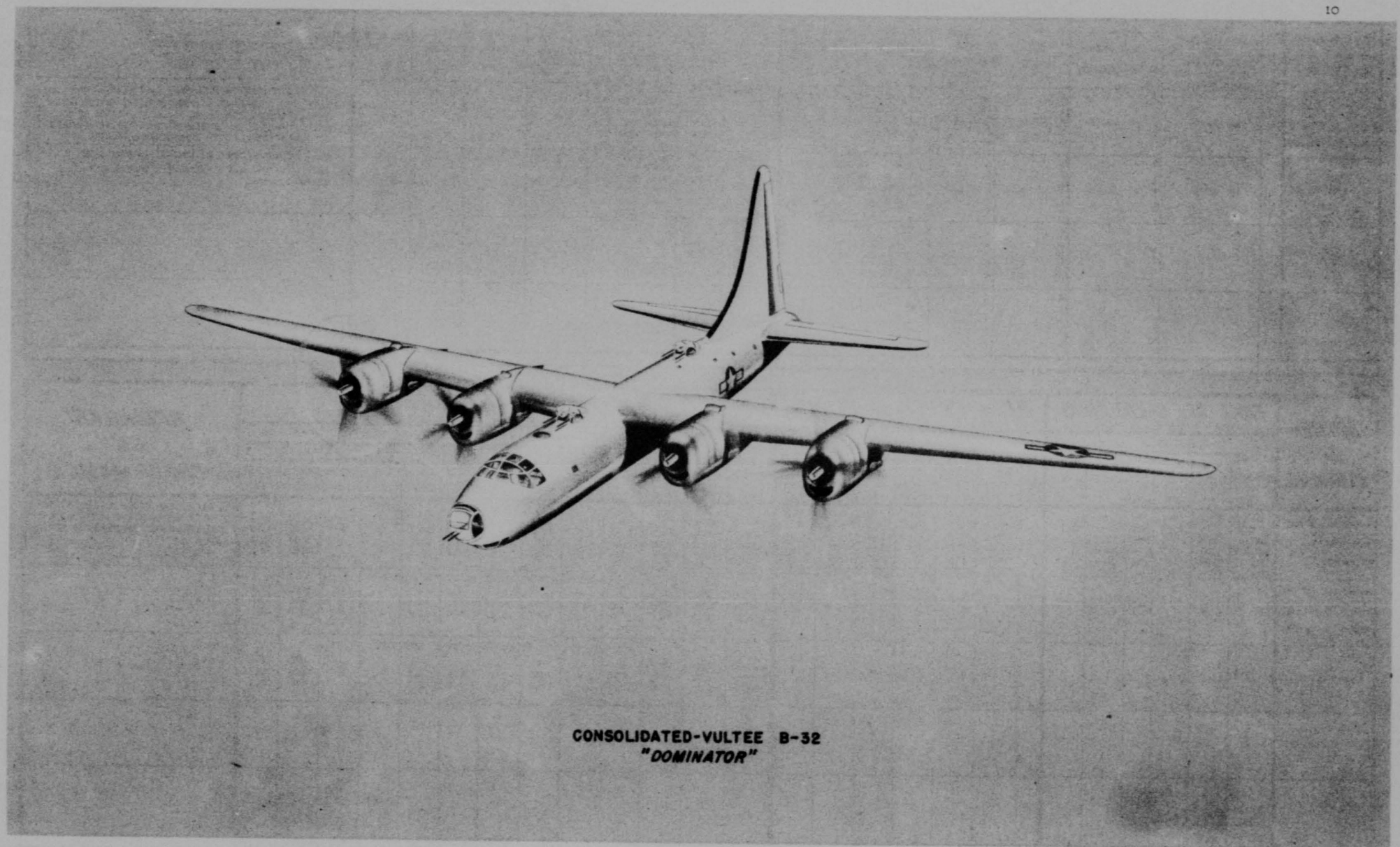
2- THE ABOVE DATA IS BASED ON STANDARD TEMPERATURE. THE B-29 IS GREATLY AFFECTED BY TEMPERATURE CHANGES AND A VARIATION IN PERFORMANCE OF AS MUCH AS 20% MAY BE EXPECTED UNDER CERTAIN CONDITIONS OF WIND AND TEMPERATURE. FOR EXAMPLE, A 1°C. CHANGE IN TEMPERATURE HAD APPROXIMATELY THE SAME EFFECT ON SERVICE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

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

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CONSOLIDATED-VULTEE B-32
"DOMINATOR"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

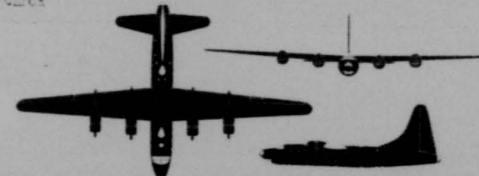
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AS OF
DATE: 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO		REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.		S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.		TYPE (See r.)
			T-TAKE-OFF M-MILITARY C-CONTINUOUS	M-MILITARY C-CONTINUOUS													
B-32-CF	4	WRIGHT R-3350-23 TURBO SUPERCHARGER 16 1/8" DIA. - 4 BL. CONST. SPD. - 2100 FT.	T 2200/ S L M 2200/ 30000 C 2000/ 32300	S 135' 0" L 42' 11" H 33' 0" T 48' 0" W 11422 34'	B 60000 C 100000 A 100000 W 123250	8	INNER (INNER CENTER) OUTER (INNER CENTER) OUTER (OUTER CENTER) (SEE F)	2222 x 500 2222 x 250 2222 x 507 2222 x 209 2222 x 330 2222 x 310 2222 x 310	2) 2) 2) .50 2) 2) 2)	365" 400 400 550 1000	DUKE TURRET FRONT TUP TR. REAR TUP TR. LOW BALL TR. TAIL TURRET	1-5000 6-2000 8-1500 12-1000 14- 500	NONE	20000	SCR-271A, 211,250, 287,522, 695 & 718, 80-36,103, 123 & 132	TECHNICAL ORDER 01-524-1. (20 JULY 1944) a. SPACE PROVISIONS FOR 500 RDS/GUN; NORMAL WGS. LISTED. b. BOMB BAY TANKS IN DESIGN STAGE; NO DETAILS AVAILABLE. c. RADIO LISTED FOR EXP. PLANES & FIRST FEW PROD. ARTICLES.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT	TO CLEAR 50		LANDING SPEED	GROUND-RUN		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.		FT.	MPH	FT/MIN	MPH				FT/MIN	MIN.	LB.	LB.	U.S. GAL.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.
B-32-CF	70000 80000 90000 100000 110000 120000	- 3650 4500 5500 6700 8250	4100 4100 4550 5000 5000	68 96 106 118 -	2200 2600 2900 3150 -	100000 100000 100000 100000 100000	30000 25000 20000 15000 10000 5000	382 366 350 331 318 302	650 825 950 1050 1150 1200	354 354 338 320 307 292	425 600 750 850 950 -	38.3 28.7 21.6 15.4 8.1 3.4	100000 106500 119000	2000 6000 20000	5150 5150 5150	1500 1150 1100	5.0 5.0 4.8	1700 1650 1550	5.1 5.0 5.0	2700 2550 2500	10.4 10.2 9.6	2950 2850 2600	10.0 10.0 9.6	3750 3500 2900	18.7 16.8 13.0	

NOTES:

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



B-32
"DOMINATOR"

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

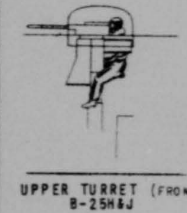
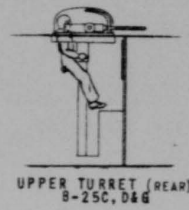
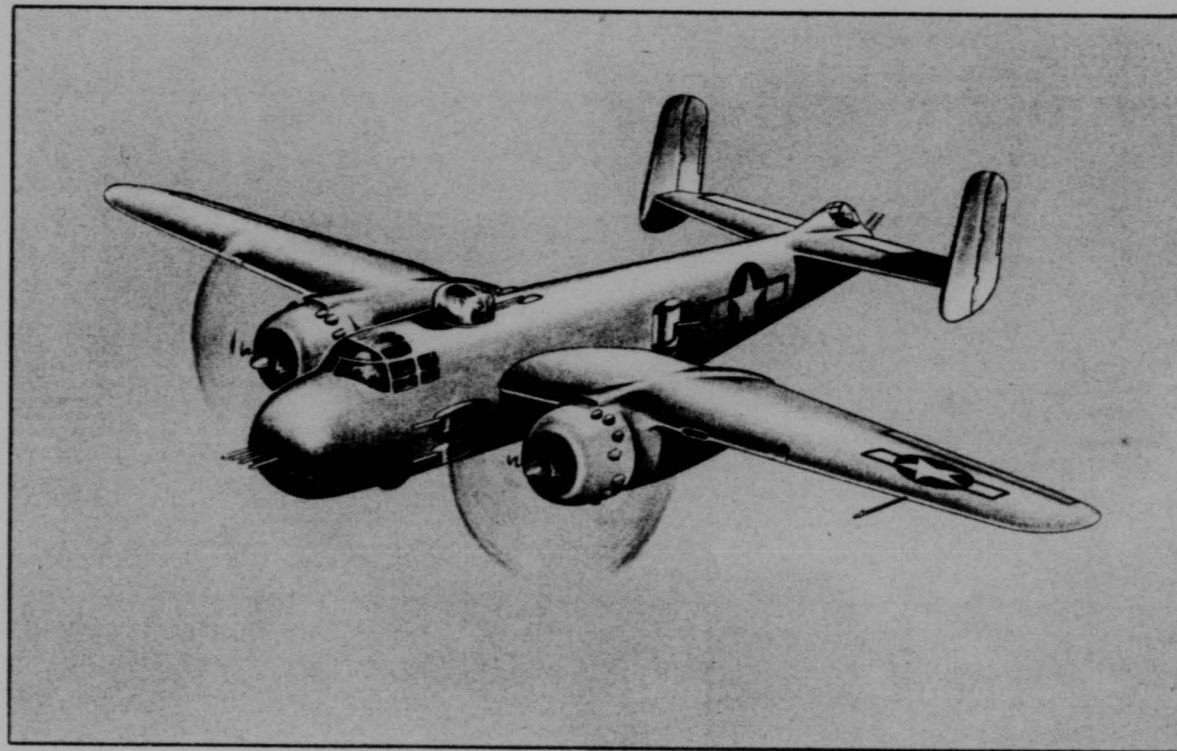
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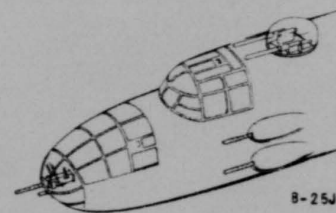
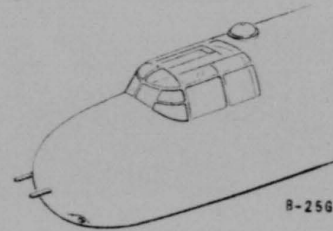
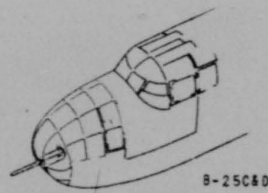
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B-25 MITCHELL BOMBER



B-25H



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 13
AS OF:
DATE 20 DEC 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE			
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT W-WEIGHT	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY US GAL	NO GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE OR STATION			EXTERNAL NO & SIZE OR CAPACITY	MAX. LOAD LB	TYPE
B-25C & D (NA & NC)	2	WEIGHT R-2600-13 2 SPD. SUPERCH. HAMILTON STD. 12'7" DIA. - 3 BL. P.F. HYDROMATIC	T 1700/ 8 L M 1700/ 1500 C 1500/ 6700	S 67'6" L 52'8" H 15'9" T 19'4" W 61.0 SQ.'	B 20500 C 29500 W 35000B	MAIN - WINGS 2 x 184 MAIN - WINGS 2 x 151 BOMB BAY 1 x 285 SEE (f)	2 x 184 2 x 151 1 x 285 1255 TOT.	1-.30 2-.50 2-.50	600 400 350	NOSE - FLEX. UPPER TURRET LOWER TURRET	1-2000 2-1000 6- 500 8- 250 12- 100	NONE	3000	SEE (A)	TECHNICAL ORDER 01-600B-1. (1 MAY 1943) f) FUEL CAPACITY OF LAST 102 (B-25C's) SAME AS BELOW. a) LENGTH OF B-25C AIRPLANE IS 53 FT.		
B-25C-NA -1 TO -25 INCL. B-25D-NC -1 TO -35 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 22000 C 33500 W 35000B	MAIN - WINGS 2 x 184 MAIN - WINGS 2 x 151 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 BOMB BAY 1 x 585 SEE (f)	2 x 184 2 x 151 6 - 304 1 x 125 1 x 585 1634 TOT.	1) .50 2) .50 2) (a)	300 300 400 350	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET	1-2000 2-1000 6- 325 8- 250 8- 100 SEE (c)	2-1600 2-250	5200	AS ABOVE	TECHNICAL ORDER 01-600B-1. (1 MAY 1943) a) B-25C-1 & D-1 ARMAMENT SAME AS BELOW; LOWER TURRET ON SOME AIRPLANES ONLY. b) ARMOR PIERCING BOMBS ON SOME MODELS ONLY. f) B-25C-25 & D-20 THRU -35 FUEL CAPACITY SAME AS BELOW; 1x285 GAL. SIDE WAIST TANK ON B-25D SERIES ONLY.		
B-25G-NA -1 TO -10 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 21700 C 33500 W 35000B	MAIN - WINGS 2 x 184 MAIN - WINGS 2 x 151 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 BOMB BAY	2 x 184 2 x 151 6 - 304 1 x 125	1-750 2) .50 2)	21 400 400 350	NOSE CANNON NOSE - FIXED UPPER TURRET LOWER TURRET	A S A S O V E				TECHNICAL ORDER 01-600C-1. (REV. 10 DEC 1943) a) LOWER TURRET ON SOME MODELS ONLY. f) BOMB BAY FUEL CONSISTS OF 1x215 GAL. SELF SEALING REMOVABLE TANK & 1x335 GAL. METAL DROPPABLE TANK; 1x585 GAL. METAL TANK IS INTERCHANGEABLE.		
B-25H-NA -1 TO -10 INCL.	2	WEIGHT R-2600-15 or -21 2 SPD. SUPERCH. HAMILTON STD. 12'7" DIA. - 3 BL. P.F. HYDROMATIC	AS ABOVE	AS ABOVE	B 22000 C 33500 W 35000B	MAIN - WINGS 2 x 184 MAIN - WINGS 2 x 151 AUX. - WINGS 6 - 304 SIDE WAIST 2 x 50 BOMB BAY 1 x 585 SEE (f) or 1634 TOT.	2 x 184 2 x 151 6 - 304 2 x 50 1 x 585 1634 TOT.	1-750 4) .50 2) 2) 2)	21 400 200 400 500	NOSE - TYPE 113E NOSE - FIXED *FOUR - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL POWER MT.	1-2000 2-1600 3-1000 6- 500 8- 250 12- 100	1-2000T	3200	SCR-274N SCR-259G SCR-287 SCR-522 SCR-578 SCR-695 RC-36	TECHNICAL ORDER 01-600D-1. (10 DEC 1944) a) SOME B-25H-1's CARRY ONLY 2 NOSE PACKAGE GUNS. b) THE 2000 LB. BOMB STATION DELETED ON 131st AIRPLANE OF BLOCK (-5) AND SUBSEQUENT. f) BOMB BAY FUEL SAME AS LISTED FOR B-25G's ABOVE.		
B-25J-NC -1 TO -25 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 21100 C 33500 W 35000B	AS ABOVE	AS ABOVE	1) 2) 4) 2) 2) 2)	300 300 400 250 400 500	NOSE - FLEX. NOSE - FIXED *FOUR - PACKAGE SIDE WAIST-FL. UPPER TURRET TAIL POWER MT.	AS ABOVE EXCEPT THAT 2000 LB. BOMB STATION IS DELETED ON 151st B-25J-1 AND SUBSEQUENT MODELS.			SCR-274N SCR-259G SCR-287 SCR-522 SCR-695 RC-36	TECHNICAL ORDER 01-600E-1. (10 OCT. 1944) *SCR-259G IS REPLACED BY AN/ARN-7 ON B-25J-15 & SUBSQ.		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB	TO CLEAR 50'		GROUND-RUN T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	WEIGHT LB	STD. ALT. FT.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	TIME OF CLIMB MIN.	TAKE OFF WEIGHT LB	BOMBS CARGO LB	TOTAL FUEL U.S. GAL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST. FT.	LAND. DIST. FT.														AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		FT.	FT.														MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS
B-25C & D (NA & NC)	25000 30000 32000 34000	- 3600 4700 5500	3300 3650 3900 -	99 108 112 -	1550 1800 2000 -	27500 29500	20000 15000 10000 5000 S L	267 266 264 283 266	- - 900 1250 1150	175 283 279 276 260	30.0 18.5 9.5 4.2 0.0	30000 29500	NONE 3000	1255 670	950 500	3.5 1.8	- -	- -	1475 750	6.3 3.2	- -	- -	1850 925	9.3 4.7			
B-25C-NA -1 TO -25 INCL. B-25D-NC -1 TO -35 INCL.	32000 33200 34000 34900 35200	4700 5200 5500 5900 6000	3900 4000 4100 -	112 111 116 -	3700 2050 2100 -	33500	20000 15000 10000 5000 S L	265 224 283 282 284	- - 900 1150 1200	260 550 430 274 257	- 16.5 9.5 4.3 0.0	34900 34000 33200 32200 35000	NONE NONE 3200 2000T 5200	1624 1524 974 974 974	600 700 650 600	2.6 2.6 2.6 2.6	- -	- -	1050 950 875	5.3 4.2 4.1	- -	- -	1500 1350 1125	8.1 6.8 6.9	*STRIP TO 35000 LB. LIMITING WEIGHT.		
B-25G-NA -1 TO -10 INCL.	32000 33700 34600 34900 35200	4700 5350 5450 5850 6000	3950 4050 4100 -	112 116 116 -	3700 2050 2100 -	33500	20000 15000 10000 5000 S L	265 281 278 285 268	- - 830 1150 1200	260 550 430 276 257	- 16.5 9.5 4.3 0.0	34900 34000 33700 33000 35000	NONE NONE 2000 1189 5200	1624 1524 1189 925 974	600 700 650 600	2.6 2.6 2.6 2.6	- -	- -	975 925 875	4.4 4.1 4.1	- -	- -	1475 1475 1200	7.8 6.5 6.5	*CAPACITY OF 1189 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.		
B-25H-NA -1 TO -10 INCL.	32000 33700 34000 34800	4700 5150 5350 5600	3950 4000 4050 4100	112 111 116 -	3700 2000 2100 -	33500	20000 15000 10000 5000 S L	267 270 266 272 266	260 540 700 1050 1110D	230 19.0 11.1 5.0 0.0	31.7 19.0 11.1 5.0 0.0	35000 35000 35000 35000 34600	NONE NONE 2000 1189 3200	1624 1524 1189 850 974	1200 1125 850 800 685	4.1 3.7 3.1 3.1 2.6	- -	- -	2275 2125 1600 1450 1275	6.9 6.2 6.3 6.1 5.4	- -	- -	2515 2350 1750 1610 1415	12.0 10.1 8.0 7.2 6.3	*CAPACITY OF 1189 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.		
B-25J-NC -1 TO -25 INCL.	32000 33700 34000 34800 35200	4700 5350 5450 5800 6000	3950 4050 4100 -	112 116 116 -	3700 2050 2100 -	A S A B U V E							34900 34000 33800 34000 33100	NONE NONE 2000 1189 3200	1624 1524 1189 850 974	1200 1125 850 800 725	4.1 3.7 3.1 3.1 2.6	- -	- -	1775 1450 1150 1275	6.6 6.5 6.5 5.1	- -	- -	1900 1575 1575 1450	6.5 6.1 6.1 6.9	*CAPACITY OF 1189 GAL. INCLUDES 1x215 GAL. SELF SEALING REMOVABLE TANK AVAILABLE WITH 2000 LB. OF BOMBS ONLY or 1x2000 LB. TORPEDO.	

NOTES:

(A) 24 VOLT RADIO SYSTEM

- SCR-211 FREQUENCY METER
- SCR-2699 RADIO COMPASS
- SCR-274N COMMAND SET (or SCR-522)
- SCR-287A LIAISON SET
- SCR-535 SET (or SCR-995 or SCR-699)
- SCR-578 EMERGENCY TRANSMITTER
- RC - 32 FILTER EQUIPMENT (or RC-198)
- RC - 43B MARKER BEACON
- RC - 103 BLIND LANDING (Provisions only)
- RC - 196 CONTACTOR UNIT
- RC - 36 INTERPHONE AMPLIFIER

RED FIGURES ARE PREDICTANT; SUBJECT TO REVISION AFTER FLIGHT CHECKS

* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

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

(C) TORPEDOES BEING USED IN LIMITED QUANTITIES ONLY.

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



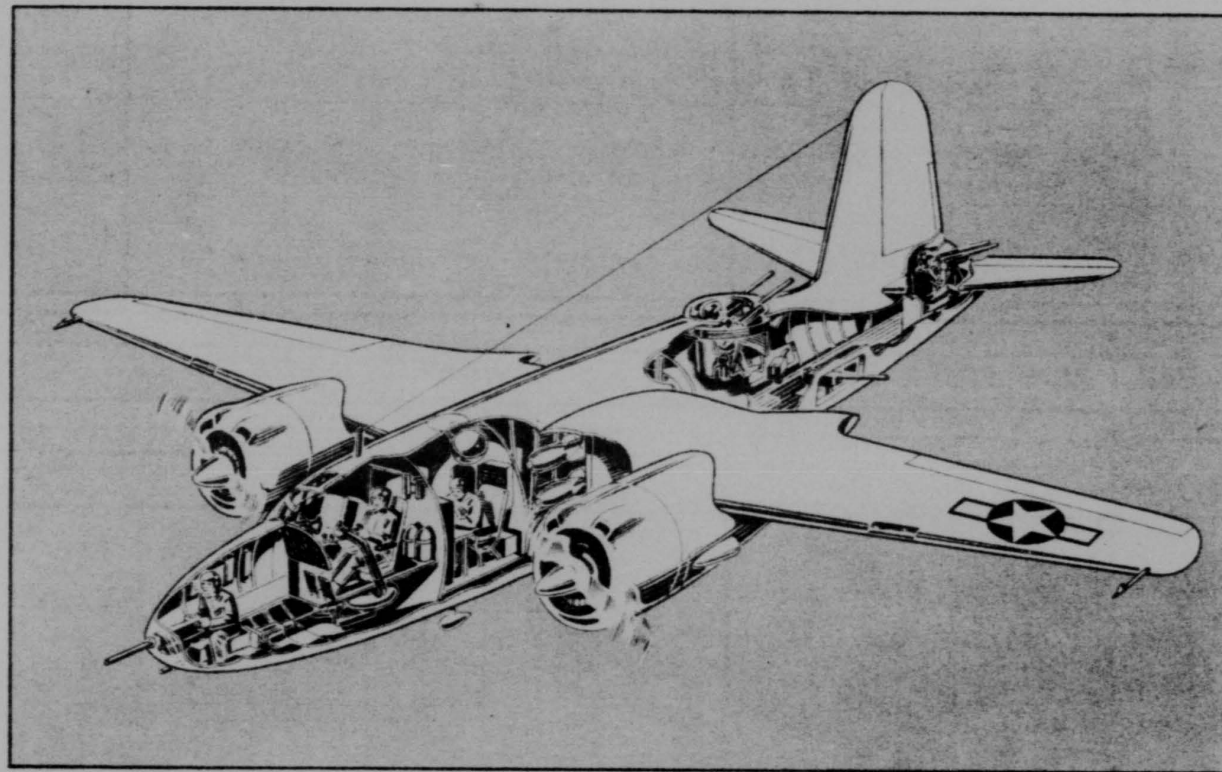
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"MITCHELL"

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B-26 "MARAUDER"

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PAGE 15
DATE 27 DEC. 1944

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WINGAREA	B-BASIC C-COMBAT M-RECPTM W-WAR MAX	TANK TYPE OR LOCATION		NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	TYPE		
																	STATION
B-26 B-MA B,-2,-3 & -4	2	PRATT-WHITEY R-2800-5e 2 SPD. SUPERCH. CURTISS 13 1/2" DIA. - 1 LBL. P.P. ELECTRIC 1150/11300	T 1850/3 L M 1850/2700 C 1500/7800 1150/11300	S 65'0" L 58'3" H 19'10" T 22'0" W 602 SQ. ' W 36500	B 23500 C 37000 A-36500 W 36500	6	MAIN - WINGS AUX. - WINGS B. BAY - (PORE)	2 x 360 2 x 121 2 x 250 1162 TOT	1-.30 1-.30 2-.50 2-.50	600 600 1500 100	NOSE - FLEX. TUNNEL - FLEX. TAIL-FLEX. MT. UPPER TURRET SIDE WAIST-FL.	2-2000 2-1600 4-1000 8-500 16-250 30-100	1-2000 (TORPEDO)	2-1600 1-20000 5200 (B)	SEE (A)	TECHNICAL ORDER 01-358A-1. (5 MARCH 1943) * SIDE WAIST GUNS ADDED TO LAST 111 (-4) ONLY. * B-26B-MA HAS -5 ENGINE; B-26B-2-MA HAS -11 ENGINE & B-26B-3 & -4, HAS -13 ENGINE.	
B-26 B-MA -10 TO -20 INCL B-26 C-MQ -5 TO -25 INCL	2	PRATT-WHITEY R-2800-43 2 SPD. SUPERCH. CURTISS 13 1/2" DIA. - 1 LBL. P.P. ELECTRIC 1150/11300	T 1920/3 L M 1920/3200 C 1190/11300 1150/11300	S 71'0" L 58'3" H 21'6" T 22'0" W 659 SQ. ' W 38200(C)	B 25300 C 37000 A-37500 W 38200(C)	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (PORE & REAR)	2 x 360 2 x 121 4 x 250 1962 TOT	1) 2) 2) 2) 2)	270 240 250 200 100 500	NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	A S A B O V E	2-2000 2-1600 4-1000 6-500 10-250 20-100	SEE (B)	5200 (B)	AS ABOVE	TECHNICAL ORDER 01-358B-1. (25 DEC. 1943) * B-26B-10,-15 & C-5 HAVE FLEX. TAIL MOUNT INSTEAD OF POWER MOUNT. * BGS./GUN SAME AS B-26B-2-MA. * BASIC WEIGHT OF B-26B-15 IS 21,500 LB.
B-26 B-MA -25 TO -55 INCL B-26 C-MQ -30 & -45 INCL	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (PORE ONLY)	2 x 360 2 x 121 2 x 250 1162 TOT	A S A B O V E	300 250 275 225 100 900	NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	2-2000 2-1600 4-1000 6-500 10-250 20-100	SEE (B)	5200 (B)	NOTE (A) plus RC-103 & SCR-522	REFERENCE AS ABOVE * FILED NOSE GUN DELETED ON LATEST B-26B's and B-26C-15. * ALL MODELS EXCEPT 1st. 75 (B-26C-30) CARRY LESS BOMBS DUE TO DELETION OF 2 REAR BOMB BAYS. * RC-103 & SCR-522 ADDED TO LATER MODELS ONLY.	
B-26F-MA -1,-2 & -8 B-26G-MA -1 TO -25	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	6	MAIN - WINGS AUX. - WINGS BOMB BAY - (PORE ONLY)	2 x 380 2 x 120 2 x 250 1500 TOT	1) 2) 2) 2)	300 250 275 225 100 900	NOSE - FLEX. SIDE WAIST-FL. U. PUS. - PACKAGE L. PUS. - PACKAGE UPPER TURRET TAIL-POWER MT.	2-2000 2-1600 4-1000 6-500 10-250 20-100	NONE	4000	AS ABOVE	TECHNICAL ORDER 01-358C-1. (15 FEB. 1944) * B-26G DESIGNATION IS USED FOR AIRPLANES WITH AN FITTINGS; NO OTHER MAJOR CHANGES.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT LB.	TO CLEAR 50 FT.		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. RANGE MILES	AT 25000 FT. RANGE MILES	AT 10000 FT. RANGE MILES	AT 25000 FT. RANGE MILES	AT 10000 FT. RANGE MILES	AT 25000 FT. RANGE MILES		AT 10000 FT. RANGE MILES	AT 25000 FT. RANGE MILES	
B-26 B-MA B,-2,-3 & -4	24000 28000 32000 35000 36000	- - 3850 4000 4300	2300 2900 3500 -	110 120 130 -	1600 2100 2600 -	35000	20000 15000 10000 5000 S L	270 298 291 294 281	300 750 1000 1150 1500	265 294 288 283 265	200 600 900 # #	26.5 11.0 7.7 3.4 0.0	34000 35500 36000 35000	NONE 1500 2000 4000	1162 1162 1162 962	950 900 -	3.2 -	- -	- -	- -	- -	- -	2000 1950 1900 1250	9.9 9.7 9.5 6.3		
B-26 B-MA -10 TO -20 INCL B-26 C-MQ -5 TO -25 INCL	28000 32000 35000 36000 38200	2400 3950 4400 -	2200 2100 -	135 136 -	1600 1200 -	37000	20000 15000 10000 5000 S L	- 282 278 285 270	- - 1000 1300	- 273 271 269 250	- 320 550 # #	- 28.6 11.2 4.1 0.0	36200 37800 38200 36300 38100	NONE 1500 2000 4000	1162 1162 1162 962 962	1125 1000 1000 -	5.2 3.8 3.8 -	- -	2375 1725 1700 -	10.6 7.8 7.8 -	- -	- -	2600 1825 1800 -	13.3 9.2 9.2 5.4		
B-26 B-MA -25 TO -55 INCL B-26 C-MQ -30 & -45 INCL	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37000	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	37800 34100 36300 38100	NONE 1500 2000 4000	1162 962 962 962	1000 550 -	3.8 2.4 -	- -	1725 1125 -	7.8 4.9 -	- -	- -	1825 1250 -	9.2 6.3 5.4		
B-26F-MA -1,-2 & -8 B-26G-MA -1 TO -25	28000 32000 35000 36000 38200	2300 2150 2660 -	2200 2100 -	122 122 125 127	1500 1200 1300 1350	37000	25000 20000 15000 10000 5000 S L	255 274 277 285 281	- - 1000	258 274 269 259 242	- 350 390 630 #	- 31.6 17.2 6.1 0.0	36000 36800 31800 38200	NONE 1500 2000 4000	1050 875 675 675	3.9 3.3 2.5 2.6	- -	1775 1500 1175 1100	8.0 6.5 5.1 5.1	- -	- -	1875 1600 1300 1125	9.6 8.1 6.6 5.7			

NOTES: (a)

24 VOLT RADIO SYSTEM
SCR-211 FREQUENCY METER
SCR-2690 RADIO COMPASS
SCR-271M COMMAND SET
SCR-287A LIAISON SET
SCR-535 SET (or SCR-995 or SCR-695)
SCR-578 EMERGENCY TRANSMITTER
RC - 32 FILTER EQUIPMENT (or RC-198)
RC - 36 INTERPHONE AMPLIFIER
RC - 43B MARKER BEACON

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK
* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.
(B) TORPEDOS BEING USED IN LIMITED QUANTITIES ONLY;
WITH MAXIMUM BOMB LOAD SHOWN TORPEDO MUST BE DROPPED FIRST.
(C) LIMITED TO 36200 LB. BY FLYING CHARACTERISTICS.



B-26
"MARAUDER"

MANUFACTURED BY MARTIN (Daltimore) "MA" & MARTIN (Omaha) "MO"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
CONFIDENTIAL																
PAGE 16																
DATE 26 DEC 1964																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA			B-BASIC C-COMBAT A-ACCIDENT 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-20B-DL	2	WRIGHT R-2600-11 2 SPD. SUPERCH. HAMILTON STD. 11.3" DIA. - 3 BL. P.F. HYDRA-MATIC	T 1600/3100 M 1600/3000 C 1350/5500 1275/12000	S 61'4" L 48'0" H 18'1" T 17" W 165 SQ. FT.	B 15600 C 22000 A-25000 W 27000A	4	MAIN - WINGS FUSELAGE BOMB BAY	4 - 390 1 x 100 2 - 990 1060 TOT.	1-.30 2-.30 1-.50 2-.50	500 1000 200 200	TUNNEL - FLEX. L. AR. NACELLES REAR COCKPIT NOSE - FIXED	1-1000 (SEE C) 1-500 1-250 10-100	(SEE C) 1-2000T 2-500 1-250 1-100	1000	SCR-27LM SCR-535 MB-26C MC-51	TECHNICAL ORDER 01-404C-1. (1 DEC 1962) SOME MODELS ONLY.
A-20C-DO	2	AS ABOVE EXCEPT FOR CHANGE TO R-2600-23 ENGINE	T 1600/3100 M 1600/1000 C 1350/5000 1275/11500	S 61'4" L 47'4" H 18'1" T 17" W 165 SQ. FT.	B 16500 C 23000 A-25000 W 27000A	4	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) BOMB BAY (SEE B)	2 x 136 2 x 64 2 x 70 4 - 620 1060 TOT.	1) .30 2) .30 4) a	500	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	1-500 (SEE C) 1-250 1-100	(SEE C) 1-2000T	2000	AS ABOVE	TECHNICAL ORDER 01-404D-1. (10 FEB 1962) NO TORPEDO PROVISIONS ON A-20C-1. FOR ALTERNATE INSTALLATIONS SEE RB-306-A.
A-20G-DO	2	AS ABOVE	AS ABOVE	S 61'4" L 48'0" H 17'7" T 17" W 165 SQ. FT.	B 17200 C 24000 A-25000 W 27000A	3	AS ABOVE	1(.30 or .50) 1-.50 6-.50	500 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	1-500 (SEE C) 1-250 1-100	(SEE C) 1-2000T	2000	SCR-27LM SCR-535A SCR-535 MB-26T MC-36 EC-322198	TECHNICAL ORDER 01-40 (5 APRIL 1964) ARMAMENT FOR A-20G-1 IS (2) .50 CAL. FIXED NOSE GUNS OF 350 RDS. EACH & (4) 20MM NOSE CANNON, TYPE M2 OF 60 RDS. EACH; MAJORITY ALLOCATED TO FOREIGN POWER.	
A-20G-DO	2	AS ABOVE	AS ABOVE	S 61'4" L 48'0" H 17'7" T 17" W 165 SQ. FT.	B 17700 C 26000 A-26000 W 27000A	3	INBD. WINGS OUTBD. WINGS FUS. (BOMB BAY) PROP. - EXT. (SEE B)	2 x 136 2 x 64 3 - 325 1 x 374 1099 TOT.	1) .30 2) .50 6)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	1-500 (SEE C) 1-250 1-100	(SEE C) 1-2000T 1-500 1-250 1-100	4000	SCR-27LM SCR-535A SCR-535 MB-26T MC-36 EC-322198	REFERENCE AS ABOVE NO PROVISIONS FOR TORPEDO ON A-20G-10 & -15. A-20G-15 HAS RB-26C INSTEAD OF MB-26T. SCR-522 INSTALLED ON THE -16'S ONLY.
A-20J-DO	2	AS ABOVE	AS ABOVE	S 61'4" L 48'7" H 17'0" T 17" W 165 SQ. FT.	B 17800 C 26000 A-26000 W 27000A	4	AS ABOVE	1) .30 2) .50 2)	400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	AS ABOVE	AS ABOVE	AS ABOVE	SCR-27LM SCR-535A SCR-535 MB-26C MC-36 EC-322198	REFERENCE AS ABOVE NO PROVISIONS FOR TORPEDO ON A-20J-15, A-20.	

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		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF		BOMBS		TOTAL FUEL		MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
	GROSS WEIGHT	T.O. DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.	LAND. DIST.	WEIGHT	STD. ALT.	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	LB.	LB.	U.S. GAL.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.				
A-20B-DL	17000	-	2850	88	-	1500	25000	250	370	277	290	22.6	23600	NOSE	1080	850	3.0	1150	4.4	1500	6.3	-	-	2100	12.1	
A-20C-DO	18000	-	2850	91	-	1600	25000	275	300	274	270	23.9	24500	NOSE	1080	875	3.0	-	-	1500	6.0	-	-	2300	10.8	
A-20G-DO	19000	-	2700	95	-	1650	25000	275	360	274	240	25.3	25000	NOSE	1080	975	3.2	1650	6.2	1700	6.6	2000	8.2	2300	11.2	
A-20G-DO	21000	3600	2900	102	2650	1850	25000	302	790	298	690	14.6	26000	2000	540	150	1.6	750	2.8	800	3.1	900	3.7	1100	5.4	
A-20G-DO	26000	5950	3850	113	3600	2100	25000	317	1260	312	1150	9.2	26000	2000T	540	485	1.6	650	2.7	700	3.0	-	-	950	5.2	
A-20G-DO	27000	6500	-	-	4300	-	25000	306	1860	301	1120	5.3	26000	4000	400	300	1.1	585	1.4	585	2.1	550	2.5	650	3.0	
A-20J-DO	-	-	-	-	-	-	26000	311	1500	308	1250	6.1	26000	2000T	725	375	2.1	925	3.9	975	4.1	-	-	1175	6.1	
A-20J-DO	-	-	-	-	-	-	26000	305	1750	299	-	2.8	26000	4000	400	300	1.1	485	1.4	585	2.1	550	2.5	650	3.0	

NOTES: (A) CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB. (B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT AFFECTING BOMB LOAD CAPACITY. (C) PROVISIONS ONLY, FOR TORPEDO: A-20 SERIES NOT BEING USED FOR TORPEDO MISSIONS AS PER MILITARY REQUIREMENTS POLICY NO. 37 DATED JULY 3, 1963. RANGE VALUES WITH TORPEDO ARE SHOWN FOR COMPARATIVE REFERENCE.

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

A-20 "HAVOC"

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

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT A-RECELIUM 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				
A-20H-DO -I TO -15 INCL.	2	WRIGHT R-2600-29 2 SPD. SUPERCH. HAMILTON STD. 11"3" DIA.-3 BL. I.P.F. HYPERMATIC	T 1700 J. L. M 1700/5200 C 1500/6400 1550/15900	S 61'4" L 128'0" H 18'1" T 17'0" W 465 SQ. FT.	B 17500 C 26000 A 26000 W 27000	3	INBD. WINGS OUTRD. WINGS FUE. (BOMB B.) DREF. (EXTRD.) (SEE B.)	2x136 2x 64 3x325 1x37L 1099 TOT.	1) 2) .50 6)	400 400 350	TUNNEL-FLEX. UPPER TURRET NOSE-FIXED	L- 500 L- 250 L- 100	L- 500 L- 250 L- 100	L- 500 L- 500 L- 1000	SCR-274W SCR-695A MN-26Y RC-36 RC-198	TECHNICAL ORDER OI-40AP-1 (15 JUNE 1944) NO TORPEDO PROVISIONS.
A-20K-DO -I TO -15 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	4	AS ABOVE		1) 2) .50 2)	400 400 350	TUNNEL-FLEX. UPPER TURRET NOSE-FIXED	AS	AS	AS	REFERENCE AS ABOVE. A-20K SAME AS A-20E, EXCEPT FOR BOMBARDIER NOSE.	

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.
A-20H-DO -I TO -15 INCL.	19000	2500	3450	94	1650	2075	25000*	285	-	150	-	1099	750	2.6	-	-	1150	5.4	-	-	1975	8.7	
	21000	3150	3625	100	2300	2160	20000*	315	680	307	620	26380	2000	1.6	-	-	985	3.4	-	-	1275	5.2	
	26000	4625	4000	108	2825	3000	15000*	322	1200	317	1050	26040	2000	1.6	-	-	985	3.4	-	-	1275	5.2	
	26000	4850	-	-	3150	-	10000	320	1590	302	1340	26090	1000	0.8	-	-	450	1.7	-	-	560	2.3	
	27000	5000	-	-	3500	-	5000	305	1880	299	-	-	-	-	-	-	-	-	-	-	-	-	
A-20K-DO -I TO -15 INCL.	AS		AS ABOVE		AS		AS	AS ABOVE		AS		AS		AS		AS	AS ABOVE					AS	AS ABOVE

NOTES: (A) CRITICAL FLIGHT CHARACTERISTICS RESULT ABOVE 27000 LB. (B) FUSELAGE TANKS ARE CARRIED IN BOMB BAYS WITHOUT EFFECTING BOMB LOAD CAPACITY.

RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK.
* MILITARY POWER AVAILABLE FOR FIVE MINUTES ONLY.
x EXTERNAL



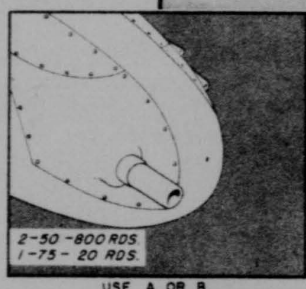
A-20
"HAVOC"

MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO"

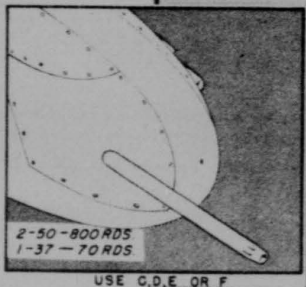
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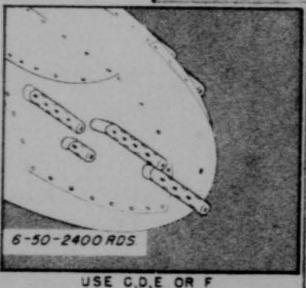
ALL PURPOSE NOSE AND BOMB BAY (A-26 SERIES)



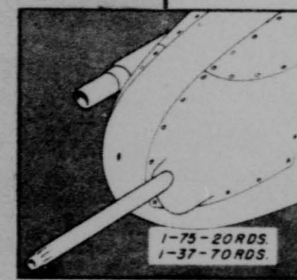
USE A OR B



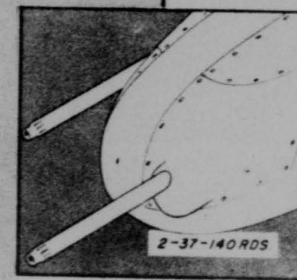
USE C,D,E OR F



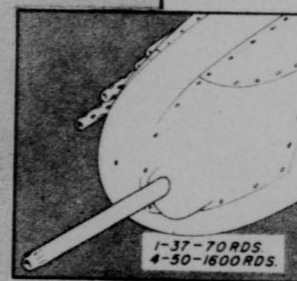
USE C,D,E OR F



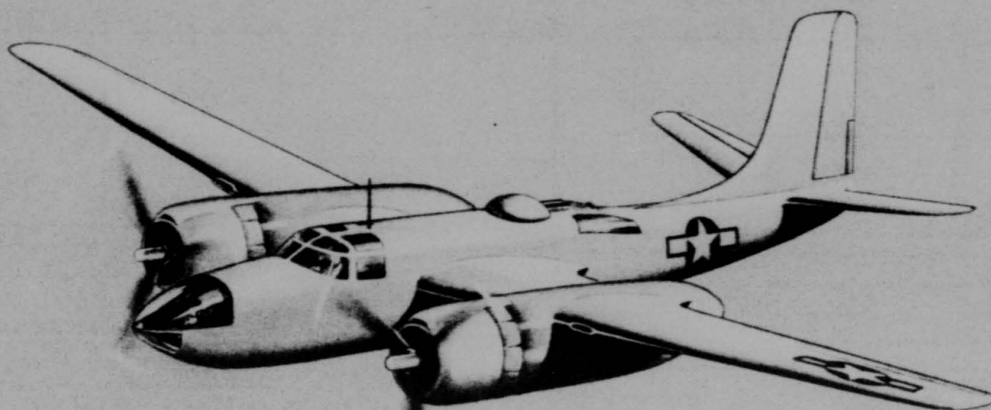
USE A OR B



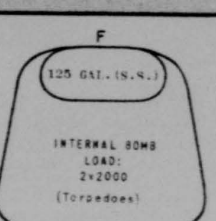
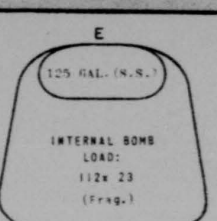
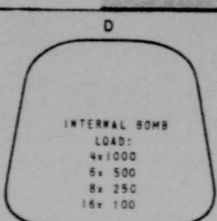
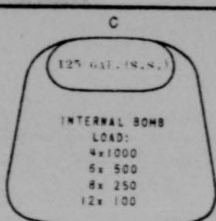
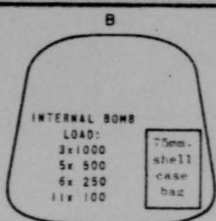
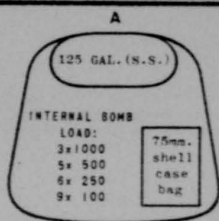
USE C,D,E OR F



USE C,D,E OR F



A-26 C



S.S. - Self Sealing

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 19
AS OF:
DATE 23 DEC 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT A-REED-LIN 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			MAX. LOAD LB.
A-26B-1 & -5 (DL) A-26B-1 & -5 (DT)	PRATT-WHITELEY R-2600-27 SINGLE ST.-2 SPD. HAMILTON STD. 12"7" DIA. - 3BL. F.P., HYDROMATIC	T 2000/3 L M 2000/1500 C 1600/6500 1160/14000	S 70' L 49'11" H 18'6" T 19'6" W 54.0 SQ.'	B 23275 C 35000 A 35500 W 37000	2 3 (a)	MAIN - WINGS AUX. - WINGS BOMB BAY(S) B. BAY (FRONT) SEE (f)	2 x 300 2 x 100 1 x 125 1 x 675	1-75M 2-.50 2-.50 4-1.50	20 500 500 300	*NOSE-F13E1 UPPER TURRET LOWER TURRET WINGS-PACKAGE (ALTERNATE INSTALLATION-SEE "A")	4-1000 8-500 8-250 16-100	2-2000T 4-500 4-250 4-100	4-1000 4-500 4-250 4-100	SCR-271L MN-26F RC-36 SCR-522	TECHNICAL ORDER 01-404J-1. (REV. 5 DEC. 1944) (a) PARTS PROCURED FOR SERVICE INSTALLATION OF ALL-PURPOSE NOSE AS SHOWN ON OPPOSITE PAGE. (b) SEE PAGE OPPOSITE FOR BOMB LOAD CARRIED WITH 75MM. GUN. (c) NORMAL CREW (2); WITH 75MM. CANNON CREW IS (3). (f) THE A-26B-1-DL HAS NO SELF SEALING BOMB BAY TANK.	
A-26B-10 to -30 (DL) A-26B-10 to -30 (DT)	PRATT-WHITELEY R-2500-27 or -71 SINGLE ST.-2 SPD. HAMILTON STD. 12"7" DIA. - 3BL. F.P., HYDROMATIC	AS ABOVE	S 70' L 50'7" H 18'6" T 19'6" W 54.0 SQ.'	B 23225 C 35000 A 35500 W 37000	2	AS ABOVE	2) .50 2) 500 2) 500	400 500 500	*NOSE UPPER TURRET LOWER TURRET WINGS-PACKAGE (ALTERNATE INSTALLATION-SEE "A")	A S	A B O V E	4-1000 4-500 4-250 4-100	SCR-271L SCR-522 SCR-595 MN-26F RC-36 AN/ARN-7	TECHNICAL ORDER 01-404J-1. (REV. 5 DEC. 1944) (a) SEE PAGE OPPOSITE FOR ALL-PURPOSE NOSE INSTALLATION. * AN/ARN-7 IN LIEU OF MN-26F IS INSTALLED IN A-26B-15-DL AND B-26B-20-DL AND SUBSEQUENT MODELS.		
A-26C-15, -16, -20 DT	AS ABOVE	AS ABOVE	S 70' L 51'3" H 18'6" T 19'6" W 54.0 SQ.'	AS ABOVE	3	AS ABOVE	2) 2) .50 2) 500	400 500 500	*NOSE UPPER TURRET LOWER TURRET WINGS-PACKAGE (ALTERNATE INSTALLATION-SEE "A")	4-1000 6-500 8-250 16-100	2-2000T 4-500 4-250 4-100	4-1000 4-500 4-250 4-100	SCR-271L SCR-522 SCR-595 SCR-269 RC-36 AN/ARN-7	TECHNICAL ORDER 01-404J-1. (REV. 5 DEC. 1944)		

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED MPH	GROUND-RUN		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS 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					
		RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS								
A-26B-1 to -30 (DL)	25000	-	2650	96	-	1750	20000	337 ^b	260 ^b	329	100	31.4	35000	NONE	1600	1090	3.5	1115 ^a	7.6 ^a	2450	7.9	2265 ^a	8.0 ^a	3090	13.1	(a) NO PROVISIONS FOR OXYGEN. (b) WHEN 8 EXTERNAL WING PACKAGE GUNS ARE CARRIED THE HIGH SPEED DECREASES APPROX. 13 MPH & RATE OF CLIMB 150 FT/MIN.
A-26B-1 to -20 (DT)	29000	2900	2950	104	2100	2000	15000 ^a	355	720	341	520	15.3	31400	NONE	925	660	2.0	585	4.4 ^a	1350	4.3	1175 ^a	4.6 ^a	1735	7.9	
A-26C-15, -16, -20 DT	32000	3700	3200	109	2950	2150	10000	346	1010	330	560	7.0	34400	3000	925	660	2.0	585	4.4 ^a	1300	4.3	1125 ^a	4.6 ^a	1640	6.9	
	33000	4000	3250	111	2700	2250	5000	350	1540	320	297	2.7	34600	4000	800	560	1.7	485	3.7 ^a	1150	3.8	970 ^a	3.9 ^a	1385	5.9	

NOTES:

(A)
4 or 8, CAL-50 REMOVABLE PACKAGE GUNS MAY BE MOUNTED ON WING BOMB RACKS IN PLACE OF BOMBS.

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

* MILITARY POWER AVAILABLE FOR 5 MINUTES ONLY.

x EXTERNAL
T TORPEDO

ENGINE NOTE:

SOME A-26 MODELS USE WATER INJECTION ENGINES;
MODELS B-2500-67 & -79.**A-26****"INVADER"**

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK NO.	ENGINE & PROP.			SIZE		WT.		COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT A-ACROBAT W-WAR MAX.	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.		NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE	EXTERNAL NO. & SIZE	MAX. LOAD LB.	TYPE			
																STATION		
A-36A-NA	1	ALLISON 1710-87 SINGLE SPEED CURTISS 10'9" DLA.-3BL. CONST. SPD. ELECT.	T 1325/5400 M 1325/5400 C 1100/6600	S 37' 0" L 32' 3" H 12' 2" T 11' 10" W 233 SQ. F	B 7100 C 10000 A 10700 W -	1	MAIN - WING EXT. - WINGS	2 x 90 2 x 75 or 2 x 50 180 TOT.	2-.50 200	200	NOSE - FIXED WING - FIXED	NONE	2-500 2-250	1000	SCR-27LN SCR-535 or SCR-595**	TECHNICAL ORDER 01-60EB-1. (10 JULY 1943) *** WAR EMERGENCY RATING. ** LAST 359 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' T.O. DIST. FT.		LANDING SPEED M.P.H.	GROUND-RUN T.O. DIST. FT.		STD. ALT. FT.	MIL. POWER HIGH SPEED FT./MIN.		MAX. CONTIN. POWER HIGH SPEED FT./MIN.		TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.				MAX. CRUISE POWER AT 25000 FT.				LONG RANGE AT 10000 FT.		
		FT.	FT.		FT.	FT.		M.P.H.	FT./MIN.	M.P.H.	FT./MIN.				MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS
A-36A-NA	9000 10000 11000	2800 3400 4100	3000 3500 4100	- - -	2050 2500 3200	2100 2400 -	20000 15000 10000 5000 S L	288 295 305 310 295	500 1025 1525 2075 2200	277 285 293 293 275	300 # # # #	16.6 9.1 5.1 2.4 0.0	11000 10000 9000 10000	NONE NONE NONE 1000	450 330 180 180	1400 1000 550 500	5.1 5.5 1.8 1.8	- - - -	- - - -	- - - -	- - - -	- - - -	2100 1500 850 800	9.4 7.0 3.5 3.4	* WITH 2-500 LB. EXTERNAL BOMBS.

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

MILITARY POWER AVAILABLE FOR 15 MINUTES.



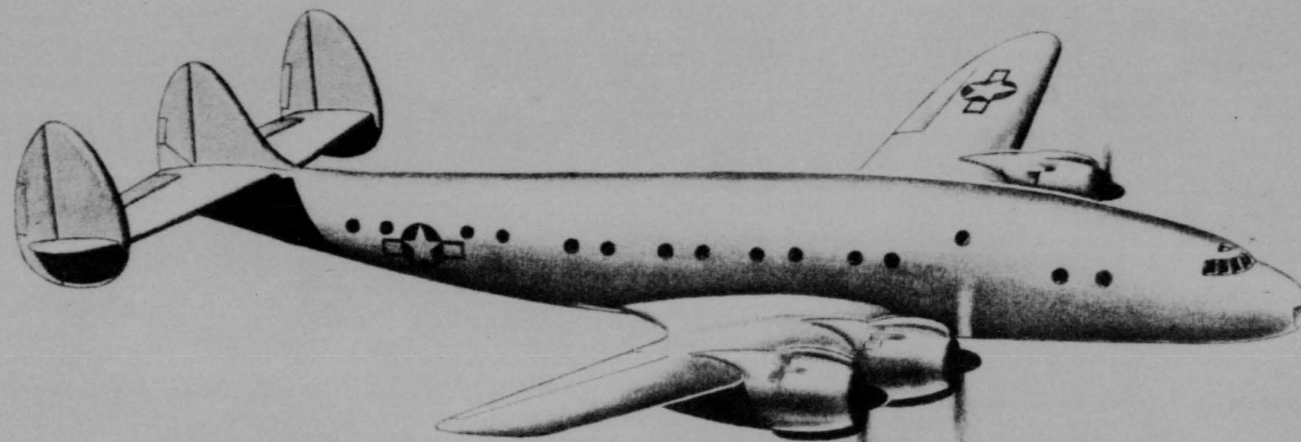
A-36
"MUSTANG"

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA"

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C-69 CONSTELLATION

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE		
	ENGINE MFR. MODEL	B.H.P./ALT.	S-SPAN	B-BASIC		TANK TYPE	NO. TANKS & CAPACITY	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO-SIZE	EXTERNAL NO-SIZE	MAX. LOAD LB.	TYPE		
	SUPERCHARGER PROP MFR. TYPE	T-TAKE-OFF	L-LENGTH	C-COMBAT		LOCATION	U.S. GAL.				OR STATION	OR CAPACITY				
C-46A-5 to -55 (CU) C-46A-1, -5, -55 (CK) C-46A-1 (CS) C-46D-1, -5, -10 (CU)	PRATT-WHITENEY R-2800-51 or -75 2 SPEED CURTISS 13'6" DIA. - 48L. F.F. ELECTRIC	T 2000/ S L M 2000/ 1500 C 1500/ 5700 1150/ 13000	S 108'0" L 76'4" H 22'0" T 26'0" W 1360 SQ. FT.	B 32,000 C 46,000 A-49,600 W 56,000A	3	WING-PANELS FUSELAGE	6- 11,000 8x 100 2200 TOT.	N	0	N	E	FORE-BELLY AFT-BELLY MAIN-CABIN TROOPS	3700 1800 10000 or 50	15000	SCR-211, 269, 271, 287, 518, 578 & 695 EC-36, 43, 103 & 198. AN/AP-1	TECHNICAL ORDER 01-251A-1. (25 JUNE 1944) * MAX. RADIO COMBINATION LISTED. * R-2800-75 ENGINES ON LATE C-46A-55-CU & CK; C-46D-10-CU.
C-47A to -90 (DL) C-47A to -30 (DK) C-53C & D (DL)	PRATT-WHITENEY R-1830-27 INTEGRAL SUPER. HAMILTON STD. 11'7" DIA. - 38L. F.F. HYDROMATIC	T 1200/ S L M 1050/ 7500 C 1050/ 7500	S 95'0" L 64'6" H 17'0" T 18'6" W 987 SQ. FT.	B 18,200 C 26,000 A-29,500 W 36,500A	4	MAIN-WINGS AUX.-WINGS FUSELAGE	2x 202 2x 200 8x 100 1604 TOT.	N	0	N	E	CARGO or TROOPS or LITTERS	5000 27 18	95000 MAX 10000 MAX 10000 MAX	SCR-211, 269, 271, 287, 518, 578 & 695 EC-36, 43, 103, 198. AN/AP-1	TECHNICAL ORDER 01-400C-1. (REV. 5 SEPT. 1944) (d) INCLUDES 1000 LB. WING EQUIPMENT. * MAX. RADIO COMBINATION LISTED. (AN/AP-2 ON SOME MODELS) NOTE: C-47 & C-53 SERIES SIMILAR EXCEPT FOR LARGE CARGO DOOR ON C-47 & (28) PLACES ON C-53.
C-47B-DK -1 to -20 C-47B-DL -1	PRATT-WHITENEY R-1830-90C 2 SPEED HAMILTON STD. 11'7" DIA. - 38L. F.F. HYDROMATIC	T 1200/ S L M 1050/ 7500 C 1050/ 7500 930/ 13600	S 95'0" L 65'9" H 16'11" T 18'6" W 987 SQ. FT.	B 18,150 C 26,000 A-29,500 W 36,500A	4	A S A B O V E		N	0	N	E	A S A B O V E			AS ABOVE	TECHNICAL ORDER 01-400D-1. (NOV. 1944)
C-60A-L0 A to -5	WRIGHT R-1820-87 2 SPEED HAMILTON STD. 10'6" DIA. - 38L. F.F. HYDROMATIC	T 1200/ S L M 1200/ 5700 1000/ 15700 C 1000/ 8100 900/ 16500	S 65'8" L 49'10" H 12'0" T 15'4" W 551 SQ. FT.	B 13,000 C 21,000 A-21,000 W 25,000	3	FRONT-WINGS REAR-WINGS AUX.-CABIN	2x 150 2x 172 3x 134 1046 TOT.	N	0	N	E	BELLY CABIN or PARATROOPS	3400 6600 or 1800	9500	SCR-211, 269, 271, 287, 518, 578 & 695 EC-36, 43, 103, 198. AN/AP-1	TECHNICAL ORDER 01-750E-1. (REV. 15 AUG. 1944) * MAX. RADIO COMBINATION LISTED. * 1200 LB. BALLAST REQUIRED IN NOSE TO BALANCE PARATROOPS.

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 FT. DIST. FT.	LANDING SPEED FT. M.P.H.	GROUND-RUN T.O. DIST. FT.	WEIGHT LB.	STD. ALT. FT.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.					
C-46A-5 to -55 (CU) C-46A-1, -5, -55 (CK) C-46A-1 (CS) C-46D-1, -5, -10 (CU)	34000 39000 46000 50000	- 2050 2700 3500	2250 2160 2650 -	88 82 95 -	1200 1400 1600 -	16000	2000 15000 10000 5000 S L	260 250 262 245	530 780 900 1100 1300	257 254 256 255 240	400 650 750 900 0.0	28.4 18.6 11.6 5.5 0.0	51000 47000 47000 51000	2000 4000 6000 10000	2200 1400 1050 1050	1600 1400 750 700	6.2 3.8 2.8 2.7	- - - -	2600 1400 1200 1100	11.7 6.1 5.3 5.3	- - - -	2950 1900 1350 1200	11.3 9.0 6.4 6.1	
C-47A to -90 (DL) C-47A to -30 (DK) C-53C & D (DL)	21000 23000 26000 29500	- 1850 2100 3200	2100 2300 2600 -	66 59 75 -	1300 1400 1600 -	20000	15000 10000 5000 S L	SAME AS FOR MAX. CONTIN. POWER	201 217 224 219 203	360 650 900 1250 1020	25.7 15.6 10.0 5.0 0.0	29300 26000 29300 or (27) TROOPS	SOME 2000 5000 TROOPS	1504 1004 804 804	1350 850 650	6.2 3.8 3.0	ABOVE PRACTICAL CRUISING CEILING	2340 1560 1115	12.3 8.3 5.8	ABOVE PRACTICAL CRUISING CEILING	3050 2100 1475	18.6 12.9 9.0	* MAX. PERMISSIBLE LEVEL FLIGHT SPEED FOR 29000 LB. IS 187 M.P.H. (I.A.S.)	
C-47B-DK -1 to -20 C-47B-DL -1	21000 23000 26000 29500	2100 2350 2850 3300	1530 1650 2750 -	71 73 76 -	1000 940 980 -	20000	15000 10000 5000 S L	SAME AS FOR MAX. CONTIN. POWER	223 229 224 219 203	500 780 900 1250 1020	24.0 15.0 10.0 5.0 0.0	29300 29000 26000 29300 or (27) TROOPS	SOME 1400 2000 5000 TROOPS	1504 1204 1004 804 804	1350 1090 850 650	6.2 5.3 3.8 3.0	2550 3040 1600 1190	12.2 9.4 8.3 6.2	1215 1675 1560 1115	5.8 9.1 8.3 5.8	- - - -	3050 2175 2100 1475	18.6 11.4 12.9 9.0	AS ABOVE
C-60A-L0 A to -5	14000 17500 18500 21000 23000	- 1800 2050 2850 3500	2150 2600 2700 -	61 68 70 -	1700 2100 2200 -	21000	15000 10000 5000 S L	259 269 260 255 238	650 1300 1400 1600 1600	235 262 255 247 235	500 1000 1200 3.0 0.0	19.0 11.0 7.0 3.0 0.0	21000 23000	1150 5000	1046 644	1000 600	4.1 2.5	ABOVE PRACTICAL CRUISING CEILING	1450 850	6.3 3.9	ABOVE PRACTICAL CRUISING CEILING	2300 1200	13.0 7.0	* 5000 LB. CARGO or 18 PARATROOPS & 1200 LB. BALLAST IN NOSE. ** SPEED RESTRICTED IN LEVEL FLIGHT.

NOTES: SEE FIGURES ARE PRELIMINARY, SUBJECT TO REVISION AFTER FLIGHT CHECK.

(A) PERMISSIBLE ONLY WITH ALL WING TANKS FULL.



C-46A
"COMMANDO"



C-47A
"SKYTRAIN"



C-60A
"LODESTAR"

MANUFACTURED BY CURTISS (Buffalo) "CU", CURTISS (Louisville) "CK", CURTISS (St. Louis) "CS", DOUGLAS (Long Beach) "DL" & DOUGLAS (Oklahoma) "DK", LOCKHEED (Burbank) "LO"

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PAGE 23
AS OF:
DATE 28 DEC. 1944

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE	
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO. SIZE OR STATION	EXTERNAL NO. SIZE OR STATION			MAX. LOAD LB.
C-54A-00 -1-1-5 C-54A-0C -1-10-20	PRATT-WHITNEY R-2000-7 2 SPEED HAMILTON STD. 13" DIA. - 3BL. P.F. HYDROMATIC	1350/8 L 1350/4000 1015/9000 240/12500	S 117' 6" L 93' 10" H 27' 6" T 21' 8" W 116' 0"	B 37000 C 38000 W 35000A	6	INBD. - WINGS OUTBD. - WINGS FUSELAGE	2 x 490 2 x 420 4 x 450 3620 TOT.	N	0	N	E	PURE-BELLM APT - BELLM PURE-CARGO APT - CARGO TROOPS	1800 2100 24000 14900 30 or 50	25000	SCR-271A 259, 271A, 287, 271B, 287 or 295 287-36, 13, 105, 198, AS/AB-7, AS-756	TECHNICAL ORDER 01-400M-1. (REV. 25 JUNE 1944) * MISC. RADIO CARRIED: MAX. COMBINATION SHOWN. NOTE: 30 TROOPS WITH FUSELAGE TANKS (3620 GAL.) 50 TROOPS WITHOUT FUSELAGE TANKS (1820 GAL.)
C-54B-1 to-20 (00) C-54B-1 (DC)	AS ABOVE	AS ABOVE	AS ABOVE	B 38700 C - W 35000A	6	INBD. - WINGS OUTBD. - WINGS AUX. - WINGS FUSELAGE	2 x 490 2 x 510 2 x 420 2 x 450 3740 TOT.	N	0	N	E	TROOPS LITTERS	41 or 49 28 or 36	32500	SCR-271A 259, 271A, 287, 271B, 287 or 295 287-36, 13, 105, 198, AS/AB-7, AS-756	TECHNICAL ORDER 01-400M-1 (10 OCT. 1944) * 41 TROOPS or 28 LITTERS WITH FUSELAGE TANKS (3740 GAL.) 49 TROOPS or 36 LITTERS WITHOUT FUSELAGE TANKS (2812 GAL.) FOUR C-54B-1 PLANES HAVE REDUCED LITTER CAPACITY.
C-69-L0 -1-5-10	WRIGHT R-3350-35 SINGLE or 2 SPEED HAMILTON STD. 15" DIA. - 3BL. P.F. HYDROMATIC	2130/3 L 2135/6300* 2025/6500*	S 123' 0" L 95' 2" H 23' 8" T 28' 0" W 165' 0"	B 50500 C 82000 W 46250B	9	WINGS WINGS (SEE F)	2 x 1589 2 x 419 4816 TOT.	N	0	N	E	50 PASS- ENGINES	NONE	PASSENGER CONVI- SION	11600 287, 271, & 295. SC-13/193, 36 & 103.	TECHNICAL ORDER 01-750J-1. (10 NOV. 1943) * HORSEPOWER RATINGS SHOWN ARE WITH SINGLE SPEED BLOWER. † TOTAL FUEL CAPACITY OF 1st. & 2nd. ARTICLES IS 4000 GAL.; 3rd. & SUBSEQUENT IS SHOWN.
C-87 C-87A C-87B } CF	PRATT-WHITNEY R-1830-L3 or -65 TURBO HAMILTON STD. 11" DIA. - 3BL. P.F. HYDROMATIC	1200/3 L 1200/25500 1100/27000	S 110' 0" L 66' 4" H 18' 0" T 25' 8" W 104.8'	B 34250 C 56000 W 62000	5	INBD. - WINGS OUTBD. - WINGS	12 - 2364 6 - 450 2814 TOT.	1-.50	500		TAIL - FLEX. (ON SOME MODELS ONLY)	CHAIRS or LITTERS & BENCH	20 or 7 11	4400 NUR. & 10000 MAX.	SCR-271A, 259, 287, & 295. SC-13/193, 36 & 103.	TECHNICAL ORDER 01-50A-1. (15 DEC. 1943)

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE	
	GROSS WEIGHT LB.	TO CLEAR 50'		LANDING SPEED FT. MPH.	GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS-CARGO-PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE				
		T.O. DIST. FT.	LAND. DIST. FT.		T.O. DIST. FT.	LAND. DIST. FT.			HIGH SPEED FT./MIN.	RATE OF CLIMB FT./MIN.	HIGH SPEED FT./MIN.	RATE OF CLIMB FT./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					
C-54A-00 -1-1-5 C-54A-0C -1-10-20	45000 55000 59000 62500 65000	1500 2500 2750 3250 4100	2300 2750 2900 -	80 90 98 -	1800 2200 -	20000 15000 10000 5000 S L	- - - 272 250	- - - 1150 1150	259 278 276 260 265	425 800 1000 1100 1050	24.4 16.0 9.4 4.4 0.0	62000 65000 59000 65000 65000	NONE *8500 *8500 *14000	3620 2720 2036 2036 2036	1740 1265 1015 820	6.9 5.0 3.3 3.3	ABOVE PRAC- TICAL CRUIS- ING CEILING	3300 2100 1550 1500	11.2 10.1 6.3 6.3	ABOVE PRAC- TICAL CRUIS- ING CEILING	4000 2800 1850 1750	22.6 14.9 10.3 9.0	* 8000 LB. CARGO or 30 TROOPS & 2000 LB. EQUIPMENT. ** 11,000 LB. CARGO or 50 TROOPS & 4000 LB. EQUIPMENT.	
C-54B-1 to-20 (00) C-54B-1 (DC)	55000 59000 62500 65000 73000	2800 3300 3850 4350 4750	3400 4000 4750 -	90 95 98 -	2200 2600 -	20000 15000 10000 5000 S L	- - - 270 265	- - - 685 700	250 276 277 255 235	265 480 15.1 640 600	43.0 25.0 15.1 7.1 0.0	63350 66000 60500 66500 73000*	NONE 8000 8000 11000 21000	3740 2906 2036 2036 2036	1785 1350 950 915 880	6.9 5.3 3.7 3.6 3.0	AS ABOVE	3350 2500 1750 1700 1500	13.6 9.3 7.2 7.1 7.0	AS ABOVE	4130 3000 2100 1860 1675	21.6 14.6 9.8 9.3 6.0	* LANDING WEIGHT LIMITED TO 62000 LB.	
C-69-L0 -1-5-10	62000 68000 75000 82000 86000 90000	1850 2230 2750 3255 3750 4500	2575 2810 3200 -	87 90 92 -	1400 1590 1675 -	20000 15000 10000 5000 S L	308 317 324 322 298	- - - 1575 1770	303 312 314 315 291	440 840 1220 1160 1580	22.8 13.3 7.2 3.1 0.0	82000 90000 86700 84600	NONE 8000 11600 21000*	4216 4216 3178 1638	1760 1740 1120 540	5.5 5.5 3.6 1.8	- - - -	2745 2700 1730 830	9.5 9.4 6.1 3.0	- - - -	4000 3700 3350 1100	19.1 17.6 11.2 5.3	ALL PERFORMANCE WITH SINGLE SPEED SUPERCHARGER. * ALTERNATE CARGO IN LIEU OF PASSENGERS	
C-87 C-87A C-87B } CF	40000 50000 56000 60000	- 3600 5050 6600	3300 3950 4300 -	90 100 105 -	2800 3300 3550 -	30000 25000 20000 15000 10000 5000	- 306 293 280 266 255	600 1050 1100 1150 1200 1200	300 287 275 262 249	34.0 26.8 20.9 15.3 9.0 4.2	52900 56000 56000 60000	NONE 3100 5800 9800	2814 2814 2344 2364	1235 1230 995 985	4.4 4.4 3.6 3.6	1375 1325 1075 1020	4.4 4.1 3.6 3.6	2210 2100 1670 1545	9.2 9.0 7.2 6.7	3030 1990 1615 1495	6.0 5.0 6.5 6.3	3315 3165 2995 2465	16.8 15.8 12.9 12.2	

NOTES:

(A) PERMISSIBLE ONLY WITH ALL WING TANKS FULL.

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

(B) SUBJECT TO STRUCTURAL MODIFICATION ON LATER MODELS.



MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO" & (CHICAGO) "DC".

LOCKHEED (BURBANK) "LO"

CONSOLIDATED "CF"

(FT. WORTH)

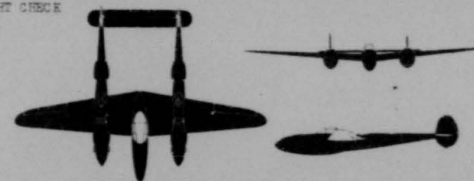
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
CONFIDENTIAL																	
PAGE 24 AS OF DATE 27 DEC. 1944																	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE			
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT 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 OR CAPACITY	MAX. LOAD LB.	TYPE		
P-38F-LO	2	ALLISON V-1710-19 & -53 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1225/8 L M 1150/27000 C 1000/27000	S 52' 0" L 37'10" H 12'10" T 16' 6" W 328 SQ. FT.	B 13000 C 13300 W -	1	MAIN - WINGS RES. - WINGS	2 x 90 2 x 60 300 TOT.	1-20MM. 4-.50	150 500 (MAX.)	NOSE-TYPE M1 NOSE-FIXED	NONE	NONE	SCR-183 or SCR-27LN	TECHNICAL ORDER 01-75-1. (30 APRIL 1944) * LIMITED TO 1150 HP. BECAUSE OF INADEQUATE COOLING.		
P-38F-LO -1 TO -15 INCL.	2	AS ABOVE	AS ABOVE	AS ABOVE	B 13600 C 15900 W -	1	MAIN-WINGS RES.-WINGS DRCP.-EXTER.	2 x 90 2 x 60 2 x 75or 2 x 150or 600 TOT.	AS ABOVE	AS ABOVE	NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-27LN* SCR-515** SCR-522 SCR-535	REFERENCE AS ABOVE * PROVISIONS ONLY. ** SPACE ONLY.		
P-38G-LO -1 TO -15 INCL.	2	ALLISON V-1710-51 & -55 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1225/8 L M 1150/27000 C 1100/24000	AS ABOVE	B 13500 C 15800 W -	1	AS ABOVE EXCEPT THAT LAST 200 P-38G-10'S ARE SAME AS BELOW	2 x 90 2 x 60 2 x 75or 2 x 150or 600 TOT.	AS ABOVE	AS ABOVE	AS ABOVE EXCEPT LAST 200 P-38G-10'S ONLY ARE SAME AS BELOW	NONE	2-1000 2-500 2-325 2-250 2-100	SCR-27LN* SCR-515** SCR-522 SCR-535 SCR-695***	REFERENCE AS ABOVE * LIMITED TO 1150 HP. BECAUSE OF INADEQUATE COOLING. * PROVISIONS ONLY. ** SPACE ONLY. *** LAST 179 P-38G-10'S ONLY.		
P-38H-LO -1 & -5	2	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3BL. P.F. ELECTRIC	T 1425/8 L M 1425/25000 C 1100/25000	AS ABOVE	B 13700 C 16300 W -	1	MAIN-WINGS RES.-WINGS DRCP.-EXTER.	2 x 90 2 x 60 2 x 75or 2 x 150or 600 TOT.	1-20MM. 4-.50	150 500 (MAX.)	NOSE-AN-MC" NOSE - FIXED	NONE	2-1000 2-500 2-325 2-250 2-100	SCR-27LN* SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-75-1. (15 SEPT. 1944) * LIMITED TO 1210 HP. BECAUSE OF INADEQUATE COOLING. * PROVISIONS ONLY. ** SPACE ONLY.		
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	TO CLEAR 50'		LANDING SPEED	GROUND-RUN		WEIGHT	STD. ALT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
	T.O. DIST.	LAND. DIST.		T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.
P-38F-LO	13500	-	2750	85	-	1450	25000	390	2100	380	#	11.0	15800	NONE	300	400	1.2	425	1.2	700	2.5	675	2.2	900	4.1	
P-38F-LO -1 TO -15 INCL.	13500	-	2750	85	-	1450	25000	395	2100	380	#	12.0	15000	NONE	600	200	2.6	850	2.6	1100	5.5	1125	4.9	1750	8.2	
P-38G-LO -1 TO -15 INCL.	15000	2150	2980	90	1280	1580	15000	376	2150	354	#	6.0	15900	NONE	300	400	1.2	400	1.2	700	2.4	685	2.2	900	4.1	
P-38H-LO -1 & -5	17500	3040	3350	97	1830	1800	10000	351	2600	340	#	4.0	17000	1000	300	385	1.2	395	1.2	675	2.4	650	2.2	850	3.9	
	19900	4000	-	-	2400	-	5000	347	2800	327	#	1.8	18000	2000	300	375	1.2	375	1.2	625	2.4	600	2.1	800	3.7	
							15800	400	1700	390	#	11.5														
							20000	390	2300	367	#	8.8														
							15000	376	2150	354	#	6.0														
							10000	351	2600	340	#	4.0														
							5000	347	2800	327	#	1.8														
							20000	390	2300	367	#	8.5														
							15000	376	2150	354	#	6.0														
							10000	351	2600	340	#	4.0														
							5000	347	2800	327	#	1.8														
							25000	402	1700	390	#	9.7	20300	NONE	900	1300	4.5	1350	4.5	1950	8.4	1950	7.7	2200	9.0	
							20000	387	2300	375	#	7.6	18300	NONE	600	750	2.6	800	2.6	1350	5.5	1350	4.9	1700	6.6	
							15000	372	2500	360	#	5.5	15300	NONE	300	350	1.2	375	1.2	650	2.5	650	2.2	850	4.2	
							10000	360	2600	348	#	3.5	18300	2000	300	325	1.2	325	1.2	575	2.5	550	2.1	750	3.6	
							5000	345	2800	332	#	1.8	19500	3200	300	300	1.2	300	1.2	550	2.4	525	2.0	700	3.4	

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK
* MILITARY POWER AVAILABLE FOR 15 MINUTES.P-38
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "LO"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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DATE 27 DEC. 1944

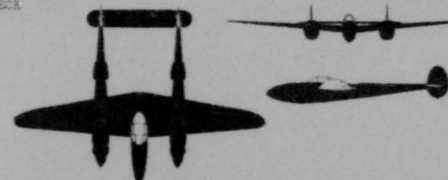
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAIL			TANK TYPE OR LOCATION	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-38 J-LO -5 & -10	ALLISON V-1710-89 & -91 TURBO CURTISS 11'6" DIA. - 3 BL. F.F., 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 13700 C 16450	1	MAIN - WINGS 2x 90 RES. - WINGS 2x 60 L.E. - WINGS 2x 75 or 2x165 or 2x300 DROPP. - EXTER.	2x 90 2x 60 2x 75 or 2x165 or 2x300	1-20MM 4-.50	150 500 (MAX.)	NOSE - AN M20* NOSE - FIXED	NOSE	2-1600 2-1000 2- 500 2- 325 2- 250 2- 100	3200	SCR-27LN* SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-75-1. (15 SEPT. 1944) * PROVISIONS ONLY. **SPACE PROVIDED.
P-38 J-LO -5 TO -25 INCL. [L.E. TANKS]	AS ABOVE	T 1125/8 L M 1600/26500 C 1100/32500	AS ABOVE	B 11100 C 17500	1	MAIN - WINGS 2x 90 RES. - WINGS 2x 60 L.E. - WINGS 2x 75 or 150 or 165 or 300 DROPP. - EXTER. (SEE P)	2x 90 2x 60 2x 75 or 150 or 165 or 300	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	REFERENCE AS ABOVE * THE 2-55 GAL. LEADING EDGE WING TANKS ARE INSTALLED AT FACTORY, MOD. CENTER or FURNISHED TO SERVICE IN KITS. ** WAR EMERGENCY RATING.
P-38L-LO -1 & -5 P-38L-VN -1	ALLISON V-1710-111 & -113 TURBO CURTISS 11'6" DIA. - 3 BL. F.F., ELECTRIC	T 1125/8 L M 1125/26500* C 1100/32500	AS ABOVE	B AS ABOVE	1	AS ABOVE	AS ABOVE	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	REFERENCE AS ABOVE ** WAR EMERGENCY RATING. * INCREASED HP. RATING IS ANTICIPATED.

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS				
	TO CLEAR 50'		L/G LANDING SPEED M.P.H.	GROUND-RUN		STD. ALT. FT.	WAR EMERG.		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 M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.				TIME TO CLIMB MIN.	AT 10,000 FT.	AT 25,000 FT.	AT 10,000 FT.	AT 25,000 FT.	AT 10,000 FT.	AT 25,000 FT.					
	LB.	FT.	FT.	FT.	FT.	FT.	M.P.H.	FT./MIN.	M.P.H.	FT./MIN.	M.P.H.	FT./MIN.	MIN.	LB.	LB.	U.S. GAL.	MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS		
P-38 J-LO -5 & -10	15500	1900	3050	105	1050	1650	30000	413	1830	403	1550	397	#	10.6	20950	NOSE	900	1000	3.4	1000	3.4	1700	6.0	1750	6.2	2100	10.8
	16500	2100	3200	108	1150	1750	25000	420	2665	406	2500	384	#	8.0	19050	NOSE	630	750	2.3	775	2.3	1250	4.1	1300	4.1	1675	8.3
	18500	2750	3550	116	1500	1900	20000	408	3190	392	2875	365	#	6.2	16150	NOSE	300	325	1.0	350	1.0	600	2.1	600	2.0	800	4.1
	19600	3400	3750	121	1850	2000	15000	395	3550	378	3050	353	#	4.5	14150	2000	300	300	1.0	300	1.0	525	2.0	525	1.8	700	3.3
P-38 J-LO -5 TO -25 INCL. [L.E. TANKS]	16000	2000	3150	109	1100	1700	30000	405	1865	395	1350	390	#	11.6	21500	NOSE	1010	1000	3.8	1070	3.8	1820	6.9	1980	6.8	2250	12.1
	17500	2400	3400	111	1500	1850	25000	411	2115	398	2200	378	#	8.8	20200	NOSE	740	835	2.8	900	2.8	1360	4.7	1460	4.3	1910	10.8
	19500	3100	3750	121	1850	2000	20000	403	2925	385	2650	399	#	6.7	17500	NOSE	410	460	1.4	475	1.4	800	2.8	840	2.8	1175	6.0
	20700	3800	-	-	2150	-	15000	390	3265	373	2950	348	#	4.9	19500	2000	410	435	1.4	425	1.4	710	2.7	735	2.4	975	4.8
P-38L-LO -1 & -5 P-38L-VN -1	21600	4500	-	-	3350	-	10000	377	3525	361	3000	336	#	3.2	80700	3200	410	430	1.4	410	1.4	585	2.6	725	2.4	900	4.8
	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S	A B O V E	A S	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A B O V E	A S

NOTES:

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

* MILITARY POWER AVAILABLE FOR 15 MINUTES



P-38
"LIGHTNING"

MANUFACTURED BY LOCKHEED (Burbank) "LO"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 26
AS OF
DATE 27 DEC. 1944

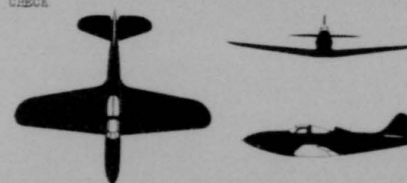
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT W-WAR MAX	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY 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-39D-BE	1	ALLISON W-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. FT.	B 6300 C 7650 W 9660	1	WING TOTALS DROPP.-BELLY	12-120 1x 75 or 1x156 or 1x175 295 TOT.	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	NONE	1-500 1-325 1-250 1-100	500	SCR-283	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	
P-39D-BE	-1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	4-.30 2-.50 1-37MM	*1000 200 60	WING - FIXED NOSE - FIXED PROP. - TYPE ML	AS	AS ABOVE	AS ABOVE	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PE-1. (30 JUNE 1943)	
P-39D-BE	-2	ALLISON W-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	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-39F-BE	1	ALLISON W-1710-35 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1150/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	4-.30 2-.50 1-37MM	*1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE ML	AS	AS ABOVE	AS ABOVE	SCR-283	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	
P-39K-BE	-1	ALLISON W-1710-63 SINGLE SPEED AERO PRODUCTS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/S L M 1150/12000 C 1000/10800	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274N or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PB-1. (30 JUNE 1943)	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE		
	GROSS WEIGHT LB.	TO CLEAR 50 FT. DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO-PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 25000 FT.		LONG RANGE AT 10000 FT.						
		FT.	FT.		FT.	FT.		MPH	FT/MIN	MPH	FT/MIN				MIN.	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES		ENDUR. HOURS	
P-39D-BE	6700 7500 7800 8150 8850	- 2800 3000 3100 1500	1850 2050 2100 2200 -	82 86 88 91 -	1800 2000 2250 2800 -	1300 1350 1100 -	7650	32L 34L 360 355 335	750 1350 2000 2150 2550	310 332 343 345 323	11.0 9.1 6.1 3.9 1.9	8850 8600 8150 7650 8150	NONE NONE NONE NONE 500	295 276 195 120 120	550 525 100 275 225	2.0 1.8 1.4 0.8 0.8	- - - 1.5 -	- - 525 350 250	2.2 1.1 1.1 -	- - - - -	1100 1050 800 600 450	5.5 5.3 4.2 2.6 2.3	ALL PERFORMANCE ESTIMATED		
P-39D-BE	-1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	
P-39D-BE	-2	6700 7500 7800 8150 8850	- 2500 2700 3000 1200	1850 2050 2100 2200 -	82 86 88 91 -	1800 1750 2000 2800 -	1300 1350 1100 -	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE
P-39F-BE	1	SIMILAR TO P-39D	SIMILAR TO P-39D	SIMILAR TO P-39D	SIMILAR TO P-39D	SIMILAR TO P-39D	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	
P-39K-BE	-1	SIMILAR TO P-39D-2	SIMILAR TO P-39D-2	SIMILAR TO P-39D-2	SIMILAR TO P-39D-2	SIMILAR TO P-39D-2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	

NOTES:

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

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

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

P-39
"AIRACOBRA"

MANUFACTURED BY BELL (Buffalo) "DE"

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 2
AS OF:
DATE 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS - CARB. CASE		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 A-RECD. LIM W-WAR MAX.			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY		
P-39L-BE -1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1325/8 L M 1150/12000 C 1000/10800	S 34' 0" L 30' 2" H 11' 10" T 11' 4" W 213 SQ. ' W	B 6500 C 7900	1	WING TOTALS 12-120 DROP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	2-.50 200 1-37MM	1000 200 30	WING - FIXED NOSE - FIXED PROP. - TYPE M1	NONE	1-500 1-325 1-250 1-100	500	SCR-271M or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PG-1. (30 JUNE 1943)	
P-39M-BE -1	ALLISON V-1710-63 SINGLE SPEED CURTISS 10'5" DIA. - 3BL. CONST. SPD. HYDR.	T 1200/8 L M 1125/15500 C 1000/11000	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	TECHNICAL ORDER 01-110PG-1. (30 JULY 1943)	
P-39N-BE -0 TO -5 INCL.	ALLISON V-1710-85 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	S 34' 0" L 30' 2" H 12' 5" T 11' 4" W 213 SQ. ' W	B 6400 C 7600	1	WING TOTALS 8-87 DROP.-BELLY 1x75 or 1x156 or 1x175 262 TOT.	2-.50 300 1-37MM	WING - FIXED NOSE - FIXED PROP. - TYPE M1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-271M or SCR-522A & SCR-535A	TECHNICAL ORDER 01-110PG-1. (10 AUG. 1943) * SCR-695 REPLACES SCR-535A ON P-39M-5 ONLY. ** 1st. 166 P-39M-0 BUILT-IN FUEL 120 GAL. KITS AVAILABLE IN SERVICE TO INCREASE FUEL OF ALL M's TO 120 GAL.	
P-39Q-BE -1 TO -15 INCL.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE EXCEPT BUILT-IN FUEL** P-39Q-1.....87 GAL. P-39Q-5.....110 GAL. P-39Q-10 & -15.....120 GAL.	2-.50 300 1-37MM	WING - FIXED NOSE - FIXED PROP. - TYPE M1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-271M or SCR-522A & SCR-695	TECHNICAL ORDER 01-110PG-1. (20 AUG. 1943) ** KITS AVAILABLE IN SERVICE TO INCREASE BUILT-IN FUEL OF P-39Q-1 & -5 TO 120 GAL.	
P-39Q-BE -20 TO -30 INCL.	ALLISON V-1710-85 (A) SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3BL. CONST. SPD. HYDR.	AS ABOVE	AS ABOVE	AS ABOVE	1	WING TOTALS 12-120 DROP.-BELLY 1x75 or 1x156 or 1x175 295 TOT.	2-.50 200 1-37MM	NOSE - FIXED PROP. - TYPE M1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE * P-39Q-20 HAS 3 BLADED PROPELLER: 11'7" DIA. P-39Q-30 HAS 3 BLADED PROPELLER: 11'0" DIA. P-39Q-21 & -25 HAS 3 BLADED PROPELLER: 11'7" DIA.	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50' T.O. DIST. FT.		LANDING DIST. FT.		GROUND-RUN T.O. DIST. FT.	LAND. DIST. FT.	WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARB. CASES	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		FT.	FT.	M.P.H.	FT.					FT.	M.P.H.	FT./MIN.	M.P.H.				FT./MIN.	TIME TO CLIMB MIN.	AT 10,000 FT.	AT 25,000 FT.	AT 10,000 FT.	AT 25,000 FT.		AT 10,000 FT.	AT 25,000 FT.	RANGE MILES	ENDUR. HOURS
P-39L-BE -1	7000 7400 7900 8400 9100	- 1950 2100 2100 2100	84 86 89 89	1150 1200 1300 1500	7900	25000 20000 15000 10000 5000	283 347 360 354 335	680 1250 1900 2350 2900	309 350 342 341 322	11.9 9.7 6.6 4.2 2.1	9100 8400 7900 8400	NONE NONE NONE NONE	295 195 120 500	500 500 500 500	1.8 1.4 0.8 0.5	850 775 625 300	3.2 2.2 1.1 0.9	- - - - -	- - - - -	- - - - -	- - - - -	1075 750 550 400	5.4 3.4 2.3 2.1				
P-39M-BE -1	7000 7400 7900 8400 9100	- 1950 2100 2100 2100	84 86 89 89	1200 1300 1450	7900	25000 20000 15000 10000 5000	357 365 370 350 330	1200 1775 2400 2250 2050	343 352 357 337 320	12.8 9.5 7.1 4.9 2.5																	
P-39N-BE -0 TO -5 INCL.	6800 7600 8100 8700	- 1850 2050 2150	83 88 91	1100 1300 1400	7600	25000 20000 15000 10000 5000	368 375 376 357 330	1175 1825 2450 2600 2600	350 355 365 345 320	11.9 8.5 6.1 4.0 2.0	8750 8600 8050 7550 8050	NONE NONE NONE NONE NONE	262 243 162 87 87	500 450 350 300 150	1.8 1.6 1.3 0.9 0.5	850 775 625 300 225	3.2 2.9 2.0 1.0 0.9	- - - - -	- - - - -	- - - - -	- - - - -	975 900 625 350 275	4.9 4.3 3.0 1.5 1.4	RANGE AND ENDURANCE OF 1st. 166 P-39M-0 ARTICLES SAME AS P-39Q-10 TO -30 LISTED BELOW. SEE NOTE (B) BELOW.			
P-39Q-BE -5		AS ABOVE	AS ABOVE				AS ABOVE	AS ABOVE	AS ABOVE		8900 8800 8200 7700 8200	NONE NONE NONE NONE NONE	295 266 185 110 500	525 500 450 400 300	1.9 1.8 1.4 1.3 0.7	900 850 600 325 300	3.3 3.2 2.3 1.1 1.2	- - - - -	- - - - -	- - - - -	- - - - -	1075 1000 725 525 375	5.4 5.0 3.6 2.1 1.9	SEE NOTE (B) BELOW.			
P-39Q-BE -10 TO -30 INCL.		AS ABOVE	AS ABOVE				AS ABOVE	AS ABOVE	AS ABOVE		8950 8450 8250 7750 8250	NONE NONE NONE NONE NONE	295 276 195 275 120	550 520 450 400 225	2.0 1.9 1.4 1.1 0.8	950 900 650 350 300	3.5 3.3 2.5 1.1 1.3	- - - - -	- - - - -	- - - - -	- - - - -	1100 1050 750 575 425	5.6 5.3 3.9 2.3 2.1	NOTE: PRELIMINARY TESTS OF P-39Q-21 & -25 SHOW THAT 4 BLADED PROPELLER MATERIALLY IMPROVES DIRECTIONAL STABILITY, BUT NOT PERFORMANCE. SEE NOTE (B) BELOW.			

NOTES:

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

* 1000 RES./GUN MAX. FOR GROUND STRAPPING; 500 RES./GUN NORMAL.

ATTENTION:

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

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK

* MILITARY POWER AVAILABLE FOR 15 MINUTES

(A) ARRANGEMENTS ARE BEING MADE TO INSTALL CONVENTIONAL QUADRANT IN P-39Q-10 THRU P-39Q-30 ON AIRPLANE'S ALLOCATED TO AAF. P-39Q-10 THRU P-39Q-30 HAVE AN AUTOMATIC SPEED-BOOST CONTROL.

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



P-39
"AIRACOBRA"

MANUFACTURED BY BELL (Buffalo) "BB"

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 28
AS OF:
DATE 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.			RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA			B-BASIC C-COMBAT A-REC-EM 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-40E & E-1 -CU	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1150/S L M 1150/11700 C 1000/10800	S 37'4" L 31'9" H 12'4" T 8'2" W 236 SQ. FT.	B 6900 C 8400 A 10000	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 52 1 x 35 1 x 62 1 x 52 201 TOT.	6-.50	281 (average)	WING - FIXED	NONE	1-500 & 2-100 or 6-20, 1-35 1-250 1-100	700	SCR-263 or SCR-271N	TECHNICAL ORDER 01-25CP-1. (REV. 20 OCT. '43) * NO EXTERNAL WING BOMBS ON EARLY MODELS. * WITHOUT RAM.		
P-40F-CU -I TO -20 INCL.	1	PACKARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/S L M 1240/11500 C 1080/9500 1010/16000	S 37'4" L 33'4" H 12'4" T 8'2" W 236 SQ. FT.	B 7000 C 8500 A 10000	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52, 75 150 or 170 327 TOT.	A S	A B O V E	A S	A B O V E	AS ABOVE	SCR-271N or SCR-522A * SCR-535A or SCR-695	TECHNICAL ORDER 01-25CH-1 (20 JUNE 1943) REVISED * P-40F-1 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE.			
P-40K-CU -I TO -15 INCL.	1	ALLISON V-1710-73 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1325/S L M 1150/11800 C 1000/11000	S AS ABOVE	B 6950 C 8400 A 10000	1	A S A B O V E	A S	A B O V E	A S	A B O V E	A S	A B O V E	AS ABOVE	TECHNICAL ORDER 01-25CK-1. (25 MAY 1943) REV. * P-40K-1 & -5 LENGTH SAME AS P-40E. ALL SUBSEQUENT MODELS HAVE EXTENDED FUSELAGE. * WITHOUT RAM.			
P-40L-CU -I TO -20 INCL.	1	PACKARD V-1650-1 SINGLE STG. - 2 SPD CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1300/S L M 1240/11500 C 1080/9500 1010/16000	S AS ABOVE	B 7000 C 8500 A 10000	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 66 1 x 52, 75 150 or 170 321 TOT.	* 4-.50	201 (average)	WING - FIXED	A S	A B O V E	AS ABOVE	TECHNICAL ORDER 01-25CH-1 (REV. 20 JUNE '43) * P-40L-1 FUEL AND ARMAMENT SAME AS P-40F SERIES.			
P-40M-CU -I TO -10 INCL.	1	ALLISON V-1710-61 SINGLE SPEED CURTISS 11'0" DIA. - 3BL. CONST. SPD. ELECT.	T 1200/S L M 1125/17300 C 1000/16400	S AS ABOVE	B 6950 C 8400 A 10000	1	REAR - WING FRONT - WING FUSELAGE DROPP. - BELLY	1 x 54 1 x 37 1 x 66 1 x 52, 75 150 or 170 327 TOT.	6-.50	281 (average)	WING - FIXED	A S	A B O V E	AS ABOVE	TECHNICAL ORDER 01-25CK-1. (REV. 25 MAY '43)			

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE			
	GROSS WEIGHT LB.	TO CLEAR 50' DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		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.	LAND. DIST.		T.O. DIST.	LAND. DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.
		FT.	FT.		FT.	FT.		MPH	FT/MIN.	MPH	FT/MIN.				MIN.	MPH	HOURS	MPH	HOURS	MPH	HOURS	MPH		HOURS	MPH	HOURS
P-40E & E-1 -CU	7500 8100 8400 8700 9100	- 2800 3125 3600 4300	1550 1700 1750 - -	84 87 90 - -	950 1050 1100 - -	25000 20000 15000 10000 5000	- 330 362 346 335	1000 980 1150 2170 2100	265 300 312 313 296	520 # # # #	18.2 11.5 7.6 4.8 2.4	9100 8700 9200	NONE NONE 500	201 149 119	425 325 300	1.5 1.1 1.1	- - -	- - -	675 525 450	2.7 2.0 1.9	- - -	- - -	650 650 575	4.1 3.0 2.8		
P-40F-CU -I TO -20 INCL.	7500 8850 9200 9350 9550 10000	- 3700 4150 4400 4700 5750	1700 1900 2150 2500 2700 3100	81 85 86 87 88	1050 1250 1300 1350 1400 1450	25000 20000 15000 10000 5000	350 364 352 340 320	1000 1400 1860 2210 2160	500 320 332 320 300	18.3 11.6 7.6 4.5 2.4	10000 9500 9200 8850 9550	NONE NONE NONE NONE 700	327 232 209 157 157	- 550 475 375 325	- 1.8 1.5 1.2 1.2	- 2.1 1.8 1.6 1.6	- 800 700 600 500	- 3.1 2.7 2.0 2.0	- - - -	- - -	- - -	1500 875 700 600	7.2 4.5 2.8 2.8			
P-40K-CU -I TO -15 INCL.	7500 8800 9150 9300 9500 10000	- 2950 3150 3200 3350 -	1700 1950 2000 2050 2100 -	81 85 86 87 88	1050 1300 1350 1400 -	25000 20000 15000 10000 5000	350 362 342 320 320	1100 1650 2000 2100	265 300 312 313 296	350 # # # #	18.5 11.2 7.5 4.9 2.4	10000 9500 9150 8800 9500	NONE NONE NONE NONE 700	327 232 209 157 157	- 500 400 350 300	- 1.7 1.4 1.1 1.1	- - - -	900 750 600 550	3.5 3.1 2.2 2.2	- - -	- -	1100 1000 900 700 600	6.3 5.0 4.3 3.1 3.0			
P-40L-CU -I TO -20 INCL.	7500 8400 8800 9100 9500 10000	- 2350 2650 3150 3500 -	1700 1850 1950 2000 2100 -	81 85 86 87 88	1050 1200 1300 1350 1450 -	25000 20000 15000 10000 5000	353 360 361 346 328	850 1500 2025 2180 2070	350 335 334 320 308	14.7 10.2 7.2 4.5 2.4	10000 9100 8600 8800 9300	NONE NONE NONE NONE 700	327 291 195 157 120	650 450 325 300 285	2.3 1.6 1.0 1.0 1.0	- - 750 475 375	- - 2.6 1.6 1.6	1200 900 600 500 425	5.0 3.6 2.3 2.1 2.1	- -	- -	1150 1000 700 575	7.6 5.0 3.3 3.1	P-40L-1 ONLY, SAME AS P-40F SERIES.		

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

NOTES:

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



P-40
"WARHAWK"

MANUFACTURED BY CURTISS (Buffalo) "CU"

CONFIDENTIAL

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
CONFIDENTIAL																
MODEL & BLOCK NO.	ENGINE & PROP.			SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS		RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT A-RECOIL W-WAR MAX.			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY US GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY		
P-40N-CU -1	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	T 1200/8 L M 1125/17300 C 1000/16400	S 37'4" L 33'4" H 12'4" T 8'2" W 236 sq. ft.	B 6400 C 7725 A 11000 W -	1	REAR - WING FUSELAGE DROPPING - BELLY 1 x 54 1 x 66 1 x 52, 75, 150 or 170 225 TOT.	4-.50 (average)	201	WING - FIXED	NONE	1-500 & 2-100 or 6-20. 1-325 1-250 1-100	900	SCR-274W or SCR-522A & SCR-695	TECHNICAL ORDER 01-250N-1. (REV. 10 OCT. '43) * PROVISIONS FOR RACKS ONLY.	
P-40N-CU -5 TO -15 INCL.	1	AS ABOVE	AS ABOVE	AS ABOVE	B 6700 C 8400 A 11500 W -	1	REAR - WING FRONT - WING FUSELAGE DROPPING - BELLY 1 x 54 1 x 37 1 x 70 1 x 75, 150 225 TOT.	6-.50 (average)	281	WING - FIXED	NONE	1-500 & 2-500 or 2-100 or 6-20. 1-325 1-250 1-100	1500	SCR-274W or 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-CU -20 THRU -30	1	ALLISON V-1710-99 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-274W or SCR-522A & SCR-695 MW-25 OR SOME MODEL	REFERENCE AND NOTE AS ABOVE. * FIRST 1272 AIRPLANES OF P-40N-20 SERIES DO NOT HAVE MODIFIER ON AUTOMATIC SPEED-BOOST CONTROL. REMAINDER -20 & ALL -30 INCORPORATE A MANIFOLD PRESS. MODIFIER.	
P-40N-CU -35		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	* STARTING WITH -35 AUTOMATIC SPEED BOOST CONTROL IS BEING DISCONTINUED.	
P-40N-CU -40		ALLISON V-1710-115 SINGLE SPEED CURTISS 11'0" DIA. - 3 BL. CONST. SPD. ELECT.	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT				RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE											REMARKS ON PERFORMANCE							
	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.	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.		ENDUR.	RANGE	ENDUR.	RANGE			
P-40N-CU -1	7000	-	1650	98	-	1000	332	1225	313	#	12.4	8850	NONE	292	600	2.0	-	-	1050	4.4	-	-	1250	6.7			
	7725	2150	1750	96	1350	1100	346	1850	330	#	9.1	8250	NONE	197	380	1.4	500	1.9	760	3.2	-	-	850	3.4			
	8250	2950	1750	105	1700	1100	348	2400	333	#	6.7	7725	NONE	122	230	0.8	290	1.1	430	1.7	-	-	520	2.5			
	8425	3100	1850	-	1800	1150	351	2525	315	#	4.1	8225	900	122	210	0.8	260	1.1	420	1.8	-	-	480	2.3			
	8850	3500	-	1950	-	-	313	2425	297	#	2.1																
P-40N-CU -5 TO -15 INCL.	7000	-	1650	98	-	1000	325	900	306	#	13.0	11400	NONE	611	1250	4.4	-	-	2250	9.8	-	-	2800	14.1			
	8400	2700	1850	100	1650	1200	340	1550	325	#	8.8	9500	NONE	331	675	2.3	-	-	1250	5.4	-	-	1550	7.6			
	8900	3550	1850	109	2050	1200	343	2130	328	#	6.0	8900	NONE	236	470	1.6	600	2.3	930	3.9	-	-	1080	5.1			
	9100	3800	1900	-	2200	1250	325	2230	310	#	4.7	8400	NONE	161	320	1.1	400	1.4	600	2.3	-	-	750	3.5			
	9500	4200	-	-	2250	-	308	2120	291	#	2.4	8900	900	161	300	1.1	370	1.4	590	2.5	-	-	-	-			
P-40N-CU -20 THRU -30		AS ABOVE	AS ABOVE	AS ABOVE			AS ABOVE	AS ABOVE	AS ABOVE						RANGE FOR MAX. CONTINUOUS AND MAX. CRUISE POWER APPROX. AS ABOVE; LONG RANGE CONDITIONS SHOWN ABOVE MAY NOT BE ATTAINED ON SOME AIRPLANES BECAUSE OF PRESENT SET UP OF AUTOMATIC SPEED-BOOST CONTROL.											NO RANGE DATA AVAILABLE.	
P-40N-CU -35, -40		AS ABOVE	AS ABOVE	AS ABOVE			AS ABOVE	AS ABOVE	AS ABOVE						11400	NONE	611	1250	4.4	-	-	2250	9.8	-	-	2800	14.1
												9500	NONE	331	675	2.3	-	-	1250	5.4	-	-	1550	7.6			
												8900	NONE	236	470	1.6	600	2.3	930	3.9	-	-	1080	5.1			
												8400	NONE	161	320	1.1	400	1.4	600	2.3	-	-	750	3.5			
												8900	900	161	300	1.1	370	1.4	590	2.5	-	-	-	-			

NOTES:

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



P-40
"WARHAWK"

MANUFACTURED BY CURTISS (Buffalo) "CU"

CONFIDENTIAL

THIS PAGE IS UNCLASSIFIED

PAGE 30
AS OF
DATE 27 DEC. 1944

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

CONFIDENTIAL

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE
	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT R-RECEM W-WAR MAIL			TANK TYPE OR LOCATION	NO. TANKS & CAPACITY US GAL	NO. GUNS RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.		
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	PRATT-WHITNEY R-2800-21, 59, -63 TURBO CURTISS 12'2" DIA. - LBL. CONST. SPD. ELECTR.	T 2000/5 L M 2000/27000 C 2300/27000 1625/29000	S 40'9" L 36'1" H 14'2" T 15'6" W 300 SQ. FT.	B 10700 C 13500 R-15000	1	MAIN - FIS. 1x200 AUX. - FIS. 1x100 DROPP. BELLY 1x 75 OF 1100 OR 200 EXT. - WINGS & BELLY 2x150 & 1x 75 (SEE F) 680 TOT.	267 HOR. 125 MAX.	WING - FIXED	NONE	b 2-1000 b 3- 500 b 3- 250 b 3- 100	2500	SCR-274A SCR-522A SCR-535A SCR-695	TECHNICAL ORDER 01-5580-1 (30 AUG. 1944) P-47D-15 & SUBSEQUENT P-47D-6 thru -11 & P-47G-10 AND -15 CARRY ONLY ONE SHACKLE IN BELLY POSITION. 500 LB. BOMB MAX. ON BELLY SHACKLE DUE TO INTERFERENCE. ONLY EARLY MODELS CARRY 200 GAL. DROPPABLE BELLY TANK. THE R-2800-21 ENGINE WILL HAVE WAR EMERGENCY RATING. WATER INJECTION IS INSTALLED & OPERATIONAL (-63). P-10 & SUBSEQUENT INITIAL AIR. SAME AS ABOVE.		
P-47D-RE -22	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13'0" DIA. - LBL. CONST. SPD. HYDRO.	T 2000/5 L M 2000/33000 C 2300/31000 1625/30000	AS ABOVE EXCEPT FOR 14'7" HEIGHT	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE		
P-47D-RA -23	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13'0" DIA. - LBL. CONST. SPD. ELECTR.	AS ABOVE	AS ABOVE	B 10500 C 11000 R-17000	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE = FIRST MODEL EQUIPPED WITH BUBBLE CANOPY.		
P-47D-RE -25	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13'0" DIA. - LBL. CONST. SPD. HYDRO.	AS ABOVE	AS ABOVE	B 10700 C 11600 R-17500	1	MAIN - FIS. 1x270 AUX. - FIS. 1x100 DROPP. BELLY 1x 75 OF 1110 EXT. - WINGS & BELLY 2x150 & 1x110 780 TOT.	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-47D-RA -26	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13'0" DIA. - LBL. CONST. SPD. ELECTR.	AS ABOVE	AS ABOVE	B 10600 C 11500 R-17500	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE 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					
	TO CLEAR 50'		LANDING		GROUND-RUN		STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
	T.O. DIST.	LAND. DIST.	LANDING SPEED	T.O. DIST.	LAND. DIST.	WEIGHT		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				TIME TO CLIMB	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE		ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.
P-47C-RE -1 TO -5 P-47D RE & RA -1 TO -21 P-47G-CU -1 TO -16	11000	-	2200	92	-	1200	30000	433	1375	420	1750	384	800	20.0	16200	NONE	680	900	2.7	950	2.7	-	-	-	-	1725	7.3	NO RANGE WITH BOMBS AVAILABLE.
P-47D-RE -22	12500	3100	2500	100	2000	1500	25000	421	1825	416	1750	375	15.0	15600	NONE	665	800	2.3	850	2.3	-	-	-	-	1525	6.6	AS ABOVE	
P-47D-RA -23	13500	3300	2600	104	2200	1700	20000	406	2110	400	2050	366	11.0	14900	NONE	505	625	2.0	650	2.0	1100	3.9	1125	3.7	1400	4.9	AS ABOVE	
P-47D-RE -25	15000	3800	-	-	2600	-	15000	390	2400	384	2200	350	7.2	14300	NONE	415	525	1.6	550	1.6	-	-	-	-	1035	4.4	PERFORMANCE VALUES SHOWN ARE WITHOUT EXTERNAL TANKS.	
P-47D-RA -26	16000	4100	-	-	3000	-	10000	372	2630	368	2300	335	4.3	14100	NONE	360	475	1.4	475	1.4	-	-	-	-	925	4.0	AS ABOVE	
P-47D-RE -22	15000	3600	-	-	2600	-	5000	353	2750	352	2350	320	2.2	13500	NONE	305	325	1.2	400	1.2	650	2.3	650	2.3	835	3.4	AS ABOVE	
P-47D-RA -23	12000	-	2300	98	-	1500	30000	426	1600	411	1360	382	13.5	16900	NONE	715	800	2.3	850	2.3	-	-	-	-	1850	7.3	AS ABOVE	
P-47D-RE -25	13000	3200	2500	102	2100	1600	25000	411	2225	410	1965	373	10.5	16100	NONE	605	800	2.3	850	2.3	-	-	-	-	-	-	-	AS ABOVE
P-47D-RA -26	14000	3400	2700	106	2300	1800	20000	398	2525	395	2265	363	8.1	15100	NONE	455	525	1.6	550	1.6	-	-	-	-	-	-	-	AS ABOVE
P-47D-RE -25	15000	3800	-	-	2600	-	15000	385	2725	379	2465	342	6.0	14800	NONE	415	525	1.6	550	1.6	-	-	-	-	-	-	-	AS ABOVE
P-47D-RA -26	16000	4100	-	-	3000	-	10000	368	2860	364	2570	334	3.9	14600	NONE	360	475	1.4	475	1.4	-	-	-	-	-	-	-	AS ABOVE
P-47D-RE -25	17500	5000	-	-	3600	-	5000	350	2910	348	2570	319	1.5	14000	NONE	305	325	1.2	400	1.2	-	-	-	-	-	-	-	AS ABOVE
P-47D-RA -26	18000	5200	-	-	3600	-	5000	350	2910	348	2570	319	1.5	14000	NONE	305	325	1.2	400	1.2	-	-	-	-	-	-	-	AS ABOVE

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

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

USED ON:
P-47C-RE (-1, -2 & -5)
P-47D-RE (-1, -2, -3, -4 & -5)
P-47D-RA (-6)
P-47G-CU (-1, -5 & -10)

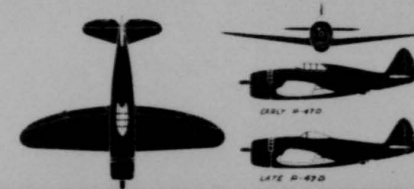
RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.
MILITARY POWER AVAILABLE FOR 15 MINUTES.

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

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

(A) R-2800-63
(WATER INJECTION)

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



P-47
THUNDERBOLT

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

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 31
AS OF:
DATE 25 DEC 1966

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.		
			T-TAKE-OFF M-MILITARY C-CONTINUOUS	M-MILITARY C-CONTINUOUS									NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
P-47D-RE -27	1	PRATT-WHITNEY R-2800-59 TURBO HAMILTON STD. 13"0" DIA. - 4 BL. CONST. SPD. HYDRO.	T 2000/3 L M 2000/33000 W 2535/27000 C 1625/30000	S 40'9" L 36'1" H 14'7" T 15'6" W 300 SQ. FT.	B 10700 C 11600 A 19500	1	MAIN - FUS. 1x270 AUX. - FUS. 1x100 DROPP. BELLY 1x75 or 1x110 EXT. - WINGS & BELLY 2x150 & 1x110	6) or .50 8)	267 NOB. 425 MAX.	WING-FIXED	NONE	2-1000 or 3-500 or 3-250 or 3-100	2500	SCR-271M SCR-522A SCR-535A SCR-692	TECHNICAL ORDER 01-65BC-1 (30 AUG. 1944) ** WAR EMERGENCY RATING.		
P-47D-RE -28 & -30	1	PRATT-WHITNEY R-2800-59 TURBO CURTISS 13"0" DIA. - 4 BL. CONST. SPD. ELECTR.	M AS ABOVE C AS ABOVE	L AS ABOVE H AS ABOVE W AS ABOVE	B 10600 C 11500 A 17500	1	A S A B O V E	A S	A B O V E	A S	A B O V E	A S	A B O V E	A S A B O V E	REFERENCE AS ABOVE.		
P-47M-RA	1	PRATT-WHITNEY R-2800-57 TURBO HAMILTON STD. 13"2" DIA. - 4 BL. CONST. SPD. HYDRO.	T 2100/3 L M 2100/34750 W 2800/32500 C 1700/42000	S 40'9" L 36'4" H 11'9" T 15'6" W 300 SQ. FT.	B 11100 C 12700	1	MAIN - FUS. 1 x 270 AUX. - FUS. 1 x 100 DROPP. BELLY 1 x 110	450 TOT.	A S	A B O V E	NONE	1-500 or 1-250 or 1-100	500	AS ABOVE	** WAR EMERGENCY RATING.		
P-47N-RE -1	1	PRATT-WHITNEY R-2800-57 TURBO CURTISS 13"2" DIA. - 4 BL. CONST. SPD. ELECTR.	M AS ABOVE C AS ABOVE	L AS ABOVE H AS ABOVE W AS ABOVE	B 11600 C 16700	1	MAIN - FUS. 1 x 270 AUX. - FUS. 1 x 100 DROPP. BELLY 1 x 90 EXT. - WINGS & BELLY 2 x 150 or 2 x 300 & 1 x 110	6) or .50 8)	267 NOB. 500 MAX.	WING - FIXED	NONE	2-1000 or 3-500 or 3-325 or 3-250 or 3-100	2500	AS ABOVE	TECHNICAL ORDER BEING PRINTED		

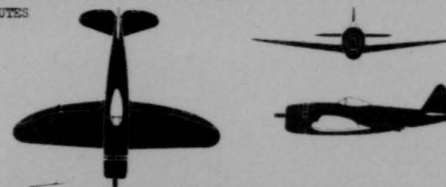
COLUMN — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS					
	GROSS WEIGHT LB.	TO CLEAR 50 FT. DIST.		LANDING SPEED MPH	GROUND-RUN DIST.		STD. ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER AT 10000 FT.		MAX. CRUISE POWER AT 10000 FT.		LONG RANGE AT 10000 FT.							
		T.O. FT.	LAND. FT.		T.O. FT.	LAND. FT.		HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.	HIGH SPEED M.P.H.	RATE OF CLIMB FT./MIN.				RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS			
		FT.	FT.		FT.	FT.		FT.	FT.	FT.	FT.	FT.	FT.				FT.	FT.	FT.	FT.	FT.	FT.		FT.	FT.	FT.		
P-47D-RE -27	12000 13500 11500 15900 16500 17500	- 3300 3600 4200 4700 6000	2300 2500 2700 - - -	100 104 105 - - -	1500 1700 1800 - - -	11600	30000 25000 20000 15000 10000 5000	433 436 424 407 389 370	1575 2270 2650 2870 3060 3120	448 445 400 385 369 354	1225 1225 1225 1225 1215 1225	561 572 562 547 533 517	11.0 8.5 6.2 4.1 2.0	17500 16700 15100 15100 14600	NONE NONE NONE NONE NONE	780 670 480 446 370	N O	D A T A	- - - - -	- - - - -	2100 1030	9.2 4.8	NO RANGE WITH BOMB LOAD AVAILABLE. PERFORMANCE SHOWN WITHOUT EXTERNAL RAGE					
P-47D-RE -28 & -30	A S	A B O V E	A B O V E	A B O V E	A B O V E	11600	30000 25000 20000 15000 10000 5000	426 428 415 398 382 363	1175 2230 2650 2870 3040 3120	441 447 393 385 362 347	1225 1225 1225 1225 1215 1225	561 572 562 547 533 517	11.0 8.5 6.2 4.1 2.0	17400 16600 15300 15000 14500	NONE NONE NONE NONE NONE	780 670 480 446 370	N O	D A T A	- - - - -	- - - - -	2100 1030	9.2 4.8	AS ABOVE					
P-47M-RA	A S	A B O V E	A B O V E	A B O V E	A B O V E	11700	30000 25000 20000 15000 10000 5000	470 453 435 418 400 385	2375 2600 2975 3200 3400 3500	433 416 400 383 366 350	1225 1210 1210 1225 1210 1225	561 566 570 555 540 526	13.8 10.8 8.3 6.0 3.9 1.9	15900 14700 14700 14700 14700	NONE NONE NONE NONE NONE	480 480 480 480 480	N O	D A T A	- - - - -	- - - - -	1030 1030	4.8 4.8	AS ABOVE					
P-47N-RE -1	A P P R O X	A S	A B O V E	A B O V E	A B O V E	16700	30000 25000 20000 15000 10000 5000	450 448 431 415 397 381	- - 3550 2760 2770 2770	422 426 390 374 358 342	1300 1550 1700 1720 1730 1730	426 385 370 355 340 325	14.8 11.7 8.7 5.8 2.9	20660 19570 16700 17800 18800	NONE NONE NONE NONE NONE	1150 990 550 550 550	REFER TO PAGE 38 FOR COMBAT RADIUS					- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

NOTES:

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



P-47
THUNDERBOLT

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

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THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 32
AS OF:
DATE 27 DEC. 1944

MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS			RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFG. MODEL SUPERCHARGER PROP MFG. TYPE	B.H.P./ALT.	S-SPAN	B-BASIC		TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX LOAD LB.	TYPE	
			T-TAKE-OFF M-MILITARY C-CONTINUOUS	L-LENGTH H-HEIGHT T-TREAD W-WING AREA	C-COMBAT A-REED LIM W-WAR MAX							NO. & SIZE OR STATION	NO. & SIZE OR CAPACITY			
P-51-NA -1 & -2	1	ALLISON V-1710-39 SINGLE SPEED CURTISS 10"9" DIA. - 38" 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 A 10500 W -	1	MAIN-R. WING MAIN-L. WING RES.-L. WING	1 x 90 1 x 59 1 x 31	1-20MM	125	WING-TYPE M2	NO BOMBS CARRIED	SCR-271AN & SCR-535	TECHNICAL ORDER 01-60JB-1. (10 JAN. 1943)		
P-51A-NA -1 TO -10 INCL.	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 10"9" DIA. - 38" CONST. SPD. ELECTR.	T 1200/8 L M 1125/18000 C 1000/17500	AS ABOVE	B 6650 C 8600 A 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) .50	280 350	OUTRD.-WINGS INRD.-WINGS	NONE	2-500 2-325 2-250 2-100	SCR-271AN* SCR-535* SCR-515** SCR-522 SCR-695	TECHNICAL ORDER 01-60JC-1. (30 APRIL 1944) * PROVISIONS ONLY ** SPACE PROVIDED	
			T M C	S L H T W	B C A W											
			T M C	S L H T W	B C A W											
			T M C	S L H T W	B C A W											

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

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT						RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS ON PERFORMANCE				
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
		T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.			LAND. DIST. FT.	HIGH SPEED MPH	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH				RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS	RANGE MILES	ENDUR. HOURS
		FT.	FT.	MPH	FT.			FT.	MPH	FT./MIN.	MPH				FT./MIN.	MIN.	MILES	HOURS	MILES	HOURS	MILES	HOURS		MILES	HOURS	MILES	HOURS
P-51-NA -1 & -2	7500 8000 8500 8800 9000	- 2600 3000 3200 3400	2600 2850 3100 3250 -	88 91 94 -	1700 1900 2100 2250 -	8600	25000 20000 15000 10000 5000	337 367 387 379 357	800 1300 1800 2000 2000	315 333 363 352 352	300 10.9 7.6 8.0 8.5	16.0	8500	NONE	150	600	1.4	700	2.3	700	2.4	-	-	1000	4.1		
P-51A-NA -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	375 390 380 360 340	1100 1650 2300 2300 2300	360 375 366 346 325	12.7 9.1 6.6 4.4 2.2	10600	NONE	150	1135	3.7	-	-	2000	7.5	-	-	2350	10.3	PERFORMANCE SHOWN WITH WING RACES. REMOVAL OF WING RACES INCREASES HIGH SPEED APPROX. 12 MPH. & RATE OF CLIMB 50% TO 100%/MIB.		

NOTES:

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

P-51

"MUSTANG"

MANUFACTURED BY NORTH AMERICAN (Inglewood) "NA"

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THIS PAGE IS UNCLASSIFIED

TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

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AS OF:
DATE: 27 DEC. 1944

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 A-REC-LEM W-WAR MAX.	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS. PER GUN	LOCATION & TYPE	INTERNAL NO & SIZE	EXTERNAL NO & SIZE			MAX. LOAD LB.		
																		TYPE	NO. & SIZE
P-51B-NA -14-5 P-51C-NT -1	1	PACKARD V-1650-3 2 SPEED-2 STAGE HAMILTON STD. 11'2" DIA. - LBL. CONST. SPD. HYDRO.	T 1100/31000 M 1150/19500 C 1120/20500 940/34000	S 37' 0" L 32' 3" H 13' 8" T 11'10" W 233 SQ. W	B 7450 C 9200 A 10000 W -	1	MAIN-R. WING MAIN-L. WING DROPP.-WINGS SEE (r)	1 x 92 1 x 92 2 x 75 2 x 75 664 TOT.	2) 2) 2) 2)	.50 .50 .50 .50	280 350	OUTRD. -WINGS INRD. -WINGS	NONE NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-274M SCR-522 or SCR-535A or SCR-695	TECHNICAL ORDER 01-60JD-1. (10 OCT. 1944) IF KITS AVAILABLE FOR 1x85 GAL. FUELSAGE TANK WHEN INSTALLED THESE MODELS WILL BE SAME AS ONES LISTED BELOW. WAR EMERGENCY RATINGS: 1595/17000' & 1295/28600' (RESTRICTED TO MODELS EQUIPPED WITH K1G-RC5/3 or LODGE RS5/5 SPARK PLUGS.)		
P-51B-NA -7410 P-51C-NT -3	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-522 or SCR-274M or SCR-274M & MN-26C COMBINATION	REFERENCE AS ABOVE NOTE: LAST 590 P-51B-5 MODELS BECOME B-7 UPON ADDITION OF 1x85 GAL. FUELSAGE TANK. P-51C-3 ARE MODIFIED P-51C-1's.	
P-51B-NA -15 P-51C-NT -54-10	1	PACKARD V-1650-7 2 SPEED-2 STAGE HAMILTON STD. 11'2" DIA. - LBL. CONST. SPD. HYDRO.	T 1190/31500 M 1630/13600 C 1390/27200 1230/17000 1100/23000	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	REFERENCE AS ABOVE WAR EMERGENCY RATINGS: 1790/11500' & 1530/24500' (RESTRICTED TO MODELS EQUIPPED WITH K1G-RC5/3 or LODGE RS5/5 SPARK PLUGS.) SOME P-51C-5-NT MODELS FOR RECONNAISSANCE WILL NOT CARRY 1x85 GAL. FUELSAGE TANK.	
P-51D-NA -5 to -20 P-51D-NT -54-20	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	SCR-522 or PARTIAL SCR-274M INSTALL.	TECHNICAL ORDER 01-60JM-1. (20 NOV. 1944)
P-51K-NT -1 to -15																			P-51K SAME AS ABOVE EXCEPT FOR 11'0" DIA. AEROPRODUCTS PROPELLER. PERFORMANCE FIGURES WILL BE SLIGHTLY LESS THAN SHOWN FOR P-51D AIRPLANE.

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

MODEL & BLOCK NO.	TAKE OFF & LANDING						HIGH SPEED & CLIMB						RANGE & ENDURANCE										REMARKS				
	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.	WAR EMERG. HIGH SPEED	MIL. POWER RATE OF CLIMB	MAX. CONTIN. POWER HIGH SPEED	TIME TO CLIMB	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.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.		RANGE	ENDUR.	RANGE	ENDUR.
LB.	FT.	FT.	MPH	FT.	FT.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.	MPH	FT/MIN.				
P-51B & C (V-1650-3)	8000	-	2000	100	-	1200	30000	440	2000	433	2000	377	#	11.0	11200	NONE	484	1275	4.0	1700	4.2	1925	6.9	-	-	2200	9.0
	8500	2100	2100	103	1350	1300	25000	430	2650	418	2325	390	#	8.9	10200	NONE	334	850	2.7	1050	2.9	1390	5.0	-	-	1160	6.4
	9000	2200	2200	106	1500	1400	20000	427	2700	427	2650	405	#	7.0	9200	NONE	184	475	1.4	590	1.5	750	2.5	-	-	850	3.5
	9500	2300	2300	109	1650	1500	15000	424	3275	414	3025	373	#	5.3	10200	1000	184	460	1.4	500	1.5	675	2.5	-	-	775	3.3
	10000	2500	-	-	1800	-	10000	406	3380	392	2900	353	#	3.6	11200	2000	184	430	1.4	510	1.4	620	2.2	-	-	690	-
P-51B & C (V-1650-7)	8000	-	2000	100	-	1200	30000	435	1680	435	1500	415	#	11.2	11200	NONE	484	1450	4.4	1620	4.4	-	-	1790	5.2	2045	8.2
	8500	2100	2100	103	1350	1300	25000	429	2900	428	2300	406	#	8.4	10200	NONE	334	960	3.0	1090	3.1	-	-	-	-	1390	5.9
	9000	2200	2200	106	1500	1400	20000	426	3050	414	2750	390	#	6.5	9200	NONE	184	555	1.5	600	1.5	-	-	660	1.7	825	3.2
	9500	2300	2300	109	1650	1500	15000	414	3125	414	2700	388	#	4.7	10200	1000	184	515	1.5	550	1.5	-	-	-	-	740	3.2
	10000	2500	-	-	1800	-	10000	417	3300	416	3300	362	#	3.0	11200	2000	184	500	1.5	535	1.5	-	-	-	-	710	3.2
P-51B & C (V-1650-3) FUELSAGE TANK	8000	-	2000	100	-	1200	30000	440	1850	433	1850	377	#	12.1	11800	NONE	569	1500	4.8	1875	5.1	2275	8.1	-	-	2600	10.6
	8500	2100	2100	103	1350	1300	25000	430	2150	418	2175	390	#	9.6	10800	NONE	419	1075	3.4	1325	3.8	1625	5.8	-	-	1800	7.5
	9000	2200	2200	106	1500	1400	20000	427	2550	427	2480	405	#	7.4	9800	NONE	269	750	2.2	875	2.3	1125	3.9	-	-	1275	5.3
	9500	2300	2300	109	1650	1500	15000	424	3075	414	2800	373	#	5.6	10800	1000	269	675	2.2	825	2.3	1025	3.7	-	-	1175	4.9
	10000	2500	-	-	1800	-	10000	406	3150	392	2700	353	#	3.8	11800	2000	269	690	2.2	800	2.3	-	-	-	-	1065	4.3
P-51B & C (V-1650-7) FUELSAGE TANK	8000	-	2000	100	-	1200	30000	435	1625	435	1625	415	#	11.8	11800	NONE	569	1730	5.2	1920	5.2	-	-	2130	6.2	2410	9.7
	8500	2100	2100	103	1350	1300	25000	429	2100	428	2100	406	#	9.0	10800	NONE	419	1260	4.1	1400	3.9	-	-	-	-	1600	7.5
	9000	2200	2200	106	1500	1400	20000	426	2825	414	2975	390	#	6.9	9800	NONE	269	815	2.3	940	2.3	-	-	1030	2.7	1360	4.9
	9500	2300	2300	109	1650	1500	15000	414	2900	414	2650	388	#	4.9	10800	1000	269	785	2.3	855	2.3	-	-	-	-	1135	4.7
	10000	2500	-	-	1800	-	10000	417	3075	416	3075	362	#	3.1	11800	2000	269	775	2.3	840	2.3	-	-	890	2.7	1075	4.2
P-51D (V-1650-7) FUELSAGE TANK	8000	-	2000	100	-	1200	30000	433	1300	433	1300	413	#	12.6	11100	NONE	419	1275	3.9	1410	3.9	-	-	-	-	1825	7.7
	8500	2100	2100	103	1350	1300	25000	427	1950	426	1950	404	#	9.5	10100	NONE	269	875	2.4	950	2.4	-	-	1050	2.8	1300	5.0
	9000	2200	2200	106	1500	1400	20000	424	2675	412	2625	388	#	7.3	11100	1000	269	790	2.4	875	2.4	-	-	-	-	1150	4.8
	9500	2300	2300	109	1650	1500	15000	413	2775	413	2300	387	#	5.2	12100	2000	269	790	2.4	875	2.4	-	-	-	-	1150	4.8
	10000	2500	-	-	1800	-	10000	416	2925	415	2925	360	#	3.3	12100	2000	269	774	2.4	840	2.5	-	-	900	2.8	1075	4.3

NOTES:

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



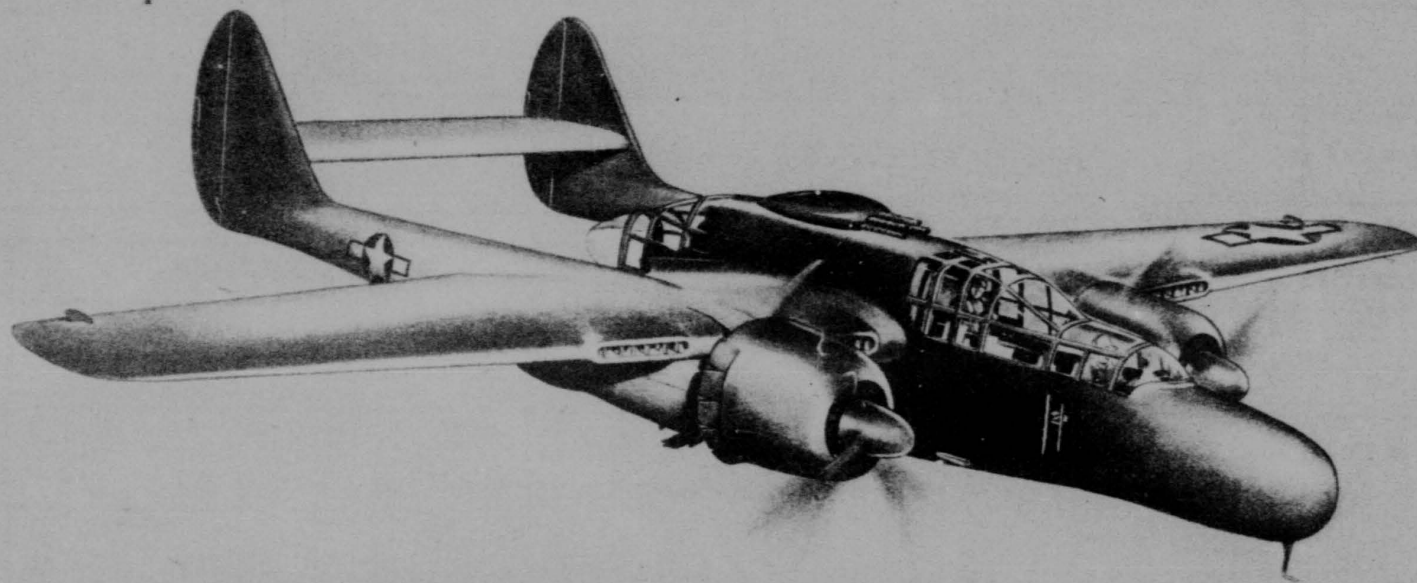
P-51
"MUSTANG"

MANUFACTURED BY NORTH AMERICAN (DULLES) "NA" & NORTH AMERICAN (DALLAS) "NT"

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NORTHROP P-61B-15

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																
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PAGE 35 AS OF: DATE 27 DEC. 1944																
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE		WT.		FUEL		ARMAMENT		BOMBS-EXTRD-PASS.		RADIO		REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX	COMBAT CREW	TANK TYPE OR LOCATION	NO. TANKS & CAPACITY U.S. GAL.	NO. GUNS & CALIBER	RDS PER GUN	LOCATION & TYPE	INTERNAL NO. & SIZE OR STATION	EXTERNAL NO. & SIZE OR CAPACITY	MAX. LOAD LB.		TYPE
P-61A-NO -1	2	PRATT-WHITNEY R-2800-10 2 SPD.-2 STG. CURTISS 12"2" DIA.-4 BL. F.P. ELECTRIC	T 1850/8 L 1860/1500 M 1760/15600 C 1600/21600 1500/8200 1650/17500 1550/22500	S 66' L 48'11" H 14' 2" T 17' 2" W 664 SQ. FT.	B 22500 C 27600	2 or 3	INHD. - WING OUTHD. - WING	2 x 115 2 x 200 630 TOT.	4-20mm 4-.50	200 560	FORE-FUSELAGE UPPER TURRET	N O N E			TECHNICAL ORDER 01-15PB-1 (15 OCT. 1944) * UPPER TURRET ON 1st. (37) P-61A-1's ONLY. o CREW OF (3) FOR MODELS WITH TOP TURRET.	
P-61A-NO -3, -10 & -11 P-61B-NO -1, -2, -5 & -6	2	PRATT-WHITNEY R-2800-65 2 SPD.-2 STG. CURTISS 12"2" DIA.-4 BL. F.P. ELECTRIC	T AS ABOVE PLUS THREE WAR EMERG. RATINGS M 2250/1500 C 2060/13000 1925/17500	AS ABOVE	B 22300 C 28000	2	INHD. - WING OUTHD. - WING EXT. - WING (See f)	2 x 115 2 x 200 2x 165 or 2x 310* 1250 TOT	4-20mm	200	FORE-FUSELAGE	NONE	2-1600 f 2-1000 2-500 2-325 2-250 2-100	3200	AS ABOVE PLUS: APN-1 & APS-13 (See r)	REFERENCE AS ABOVE * EXTERNAL WING TANKS or 2-1600 LB. BOMBS CAN BE CARRIED ON P-61A-11; P-61B-2 & -6 ONLY. THE 310 GAL. EXTERNAL PRESSURIZED FUEL TANKS WILL BE AVAILABLE IN NEAR FUTURE * APS-13 ON P-61B-5 & -6 ONLY.
P-61B-NO -10	2	AS ABOVE	AS ABOVE	AS ABOVE	B 23450 C 29700	2	INHD. - WING OUTHD. - WING EXT. - WING (See f)	2 x 115 2 x 200 1x 165 or 1x 310 1870 TOT	AS ABOVE	AS ABOVE	FORE-FUSELAGE UPPER TURRET	NONE	4-1600 f 4-1000 4-500 4-325 4-250 4-100	6400	SAME AS P-61A-1 PLUS: APN-1 & APS-13	REFERENCE AS ABOVE * EXTERNAL WING TANKS or 4-1600 LB. BOMBS CAN BE CARRIED. THE 310 GAL. EXTERNAL PRESSURIZED FUEL TANKS WILL BE AVAILABLE IN NEAR FUTURE.
P-61B-NO -15	2	AS ABOVE	AS ABOVE	AS ABOVE	B 23450 C 29700	3	AS ABOVE	AS ABOVE	4-20mm 4-.50	200 560	FORE-FUSELAGE UPPER TURRET	A B A B C V E	AS ABOVE		REFERENCE AS ABOVE	

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT								RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS		
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND-RUN		WEIGHT LB.	STD. ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT LB.	BOMBS CAPAC. LBS.	TOTAL FUEL U.S. GAL.	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST. FT.	LAND. DIST. FT.	LANDING SPEED MPH	T.O. DIST. FT.			LAND. DIST. FT.	HIGH SPEED MPH	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH	RATE OF CLIMB FT./MIN.	HIGH SPEED MPH				RATE OF CLIMB FT./MIN.	TIME TO CLIMB MIN.	AT 10000 FT.	AT 25000 FT.	AT 10000 FT.	AT 25000 FT.	RANGE MILES	ENDUR. HOURS		RANGE MILES	ENDUR. HOURS
P-61A-NO -1	24000 26000 28000 29000 30500 32500	- 2550 2900	2175 2300 2375	- 1600 1900 2050 2300 2550	1100 1525 1700 1775	27600	25000 20000 15000 10000 5000 S L	356 356 356 356 356 356	1025 1625 2240 2000 2600 2925	360 355 343 323 324 313	1025 1575 1925 2025 2180 2460	360 355 343 323 305 287	11.0 10.1 7.1 4.5 2.2 0.0	27600	NONE	630	365	1.2	415	1.3	800	2.7	-	-	1010	4.5	ALL PERFORMANCE SHOWN WITHOUT DE-ICESS.
P-61A-NO -3, -10 & -11 P-61B-NO -1, -2, -5 & -6	A S A B O V E	A S A B O V E	A B O V E	A B O V E	A B O V E	26000	25000 20000 15000 10000 5000 S L	356 369 364 355 336 333	1025 1625 2240 2000 2600 2925	360 355 343 323 324 313	1025 1575 1925 2025 2180 2460	360 355 343 323 305 287	11.3 10.3 7.2 4.6 2.2 0.0	32400 30400 28000 30000	NONE NONE NONE NONE	1250 960 630 630	750 560 365	2.4 1.8 1.2	620 415	1.8 1.3	800	2.7	-	-	1900 1425 1010	8.6 6.3 4.5	AS ABOVE
P-61B-NO -10	A S A B O V E	A S A B O V E	A B O V E	A B O V E	A B O V E	28000	25000 20000 15000 10000 5000 S L	356 369 364 355 336 333	1025 1625 2240 2000 2600 2925	360 355 343 323 324 313	1025 1575 1925 2025 2180 2460	360 355 343 323 305 287	11.3 10.3 7.2 4.6 2.2 0.0	36900 32400 30400 28000 30000	NONE NONE NONE NONE	1870 1250 960 630	750 560 365	2.4 1.8 1.2	620 415	1.8 1.3	800	2.7	-	-	1900 1425 1010	8.6 6.3 4.5	AS ABOVE
P-61B-NO -15	A S A B O V E	A S A B O V E	A B O V E	A B O V E	A B O V E	29700	25000 20000 15000 10000 5000 S L	352 366 362 352 333 330	830 1400 1960 2220 2260 2550	356 354 348 331 322 307	800 1300 1570 1680 1820 2090	357 352 340 318 300 281	- 12.0 8.6 5.6 2.7 0.0	35000 34100 32100 29700 31700 33700	NONE NONE NONE NONE NONE NONE	1870 1250 960 630 630	750 560 360	2.4 1.8 1.2	620 410	1.8 1.3	800	2.7	-	-	1350 940	5.9 4.2	AS ABOVE

NOTES:

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

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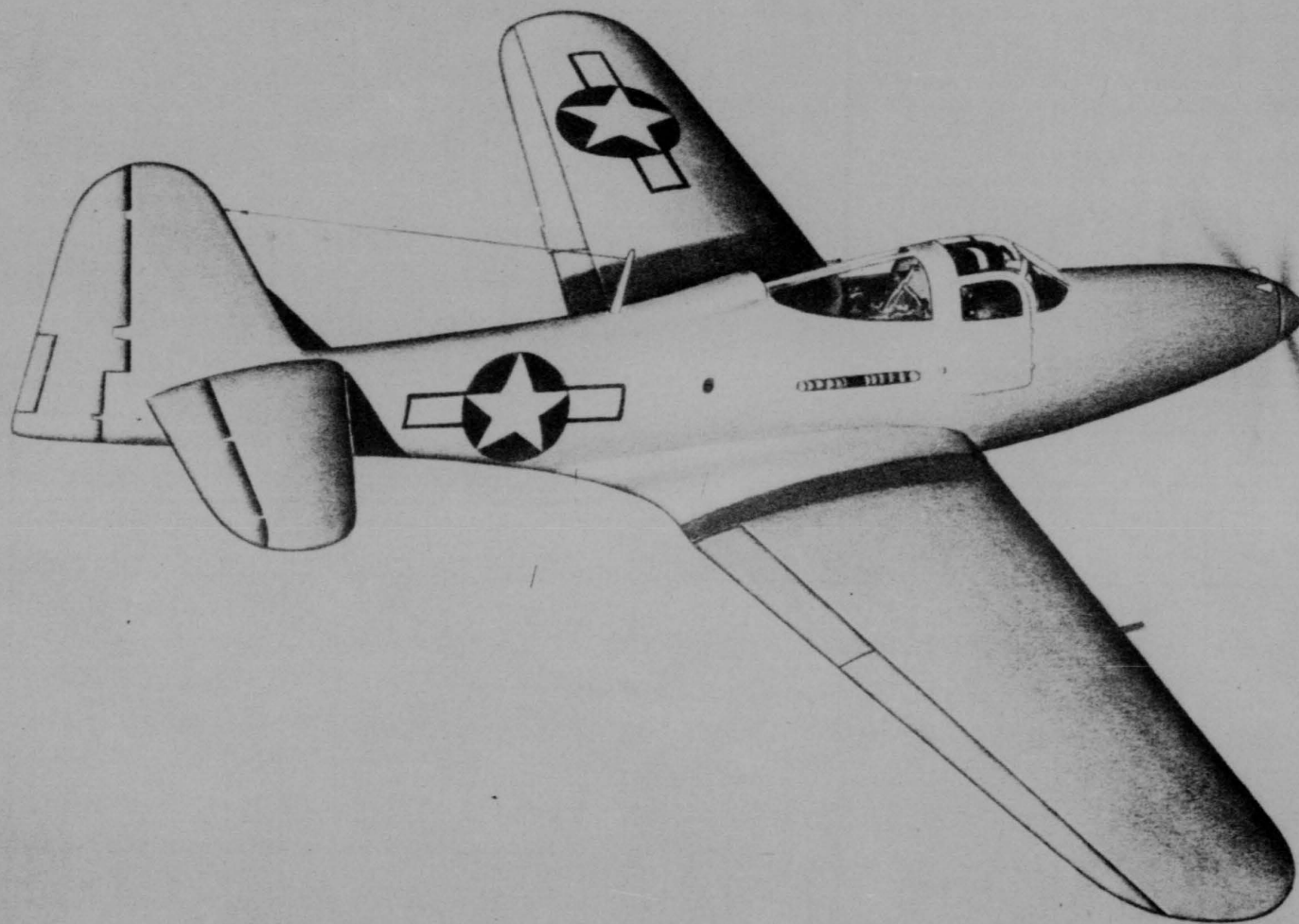
"BLACK WIDOW"

MANUFACTURED BY NORTHROP (HAMMERS) "NO"

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BELL P-63A

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																PAGE 37	
CONFIDENTIAL																AS CR	
																DATE: 27 DEC. 1944	
MODEL & BLOCK NO.	ENGINE & PROP.		SIZE	WT.	COMBAT CREW	FUEL		ARMAMENT			BOMBS-CARGO-PASS.		RADIO	REMARKS & REFERENCE			
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE-OFF M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA		B-BASIC C-COMBAT 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 CARGO	MAX. LOAD LB.	TYPE		
P-63A-BE -1 TO -7 INCL.	1	ALLISON V-1710-93 2 STAGE AEROPRODUCTS 11'7" DIA. - (BEL. CONST. SPD. HYDRO)	T 1325/ S L M 1150/24200 W 1500/ S L C 1000/20000	S 38'11" L 32'18" H 12'3" T 14'7" W 248'32"	B 6925 C 8350 W -	MADY - WINGS DROP. - BELLY & DROP. - WINGS (See 2)	2 x 65 1 x 75 or 1 x 75 2 x 75 451 TOT.	1-37mm 2-50 2-50	30 250 200	PROP. - TYPE M4 WING - FIXED NOSE - FIXED	NONE	1-500 f 1-325 f 1-250 f 1-100 f	500 or 1500	AS ABOVE	TECHNICAL ORDER 01-110FP-1. (30 AUG. 1944) f EXTERNAL WING TANKS or BOMBS ADDED TO P-63A-6 & SUBSQ. W. WAR EMERGENCY RATING.		
P-63A-BE -8, -9, -10	1	ALLISON V-1710-93 2 STAGE AEROPRODUCTS 11'0" DIA. - (BEL. CONST. SPD. HYDRO)	AS ABOVE	AS ABOVE	AS ABOVE	MADY - WINGS DROP. - BELLY & DROP. - WINGS (See 2)	2 x 65 1 x 64 or 1 x 75 2 x 75 451 TOT.	1-37mm 1.5" 1.30 2-50 2-50	30 250 200	PROP. - TYPE M10 WING - FIXED NOSE - FIXED	NONE	3-500 3-325 3-250 3-100	1500	AS ABOVE	REFERENCE AS ABOVE. f TYPE M10 COMMON ON P-63A-9 & SUBSEQUENT MODELS. f PROVISIONS FOR 125 GAL. SELF SEALING BELLY TANK.		
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB AT NORMAL COMBAT WEIGHT										RANGE & ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS
	TO CLEAR 50'		GROUND-RUN		WEIGHT	STD ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		TAKE OFF WEIGHT	BOMBS CARGO-PASS.	TOTAL FUEL	MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
	T.O. DIST.	LAND. DIST.	T.O. DIST.	LAND. DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB				RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.	RANGE	ENDUR.		
P-63A-BE -1 TO -7 INCL.	7700	1700	1800	-	1070	1110	30000	392	1680	392	1680	390	10.1	10500	NONE	151	-	-	-	-	-	2200	12.4	PERFORMANCE SHOWN WITHOUT EXTERNAL TANKS.			
	8300	2100	-	-	1320	-	25000	401	2380	401	2380	365	7.6	9500	NONE	301	800	2.5	-	-	-	1570	6.7				
	8700	2520	-	-	1520	-	20000	398	3030	388	3030	370	5.7	8650	NONE	201	500	1.6	-	-	-	1000	4.3				
	9500	2900	-	-	2000	-	15000	387	3390	372	3340	355	4.2	8350	NONE	126	300	0.9	-	-	-	650	2.7				
	10500	1500	-	-	3100	-	10000	373	3815	355	3690	335	2.8	8850	500	126	290	0.9	-	-	-	560	2.5				
P-63A-BE -8, -9, -10	A	S	A	B	O	T	8350	402	1730	402	1730	359	10.1			A	S	A	B	O	T	B	A S A B O V E				
							25000	410	2350	410	2350	374	7.6														
							20000	407	2960	398	2960	379	5.7														
							15000	392	3500	380	3450	360	4.2														
							10000	379	3700	362	3575	340	2.8														
							5000	361	3840	341	3500	320	1.4														

NOTES:

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



P-63
"KINGCOBRA"

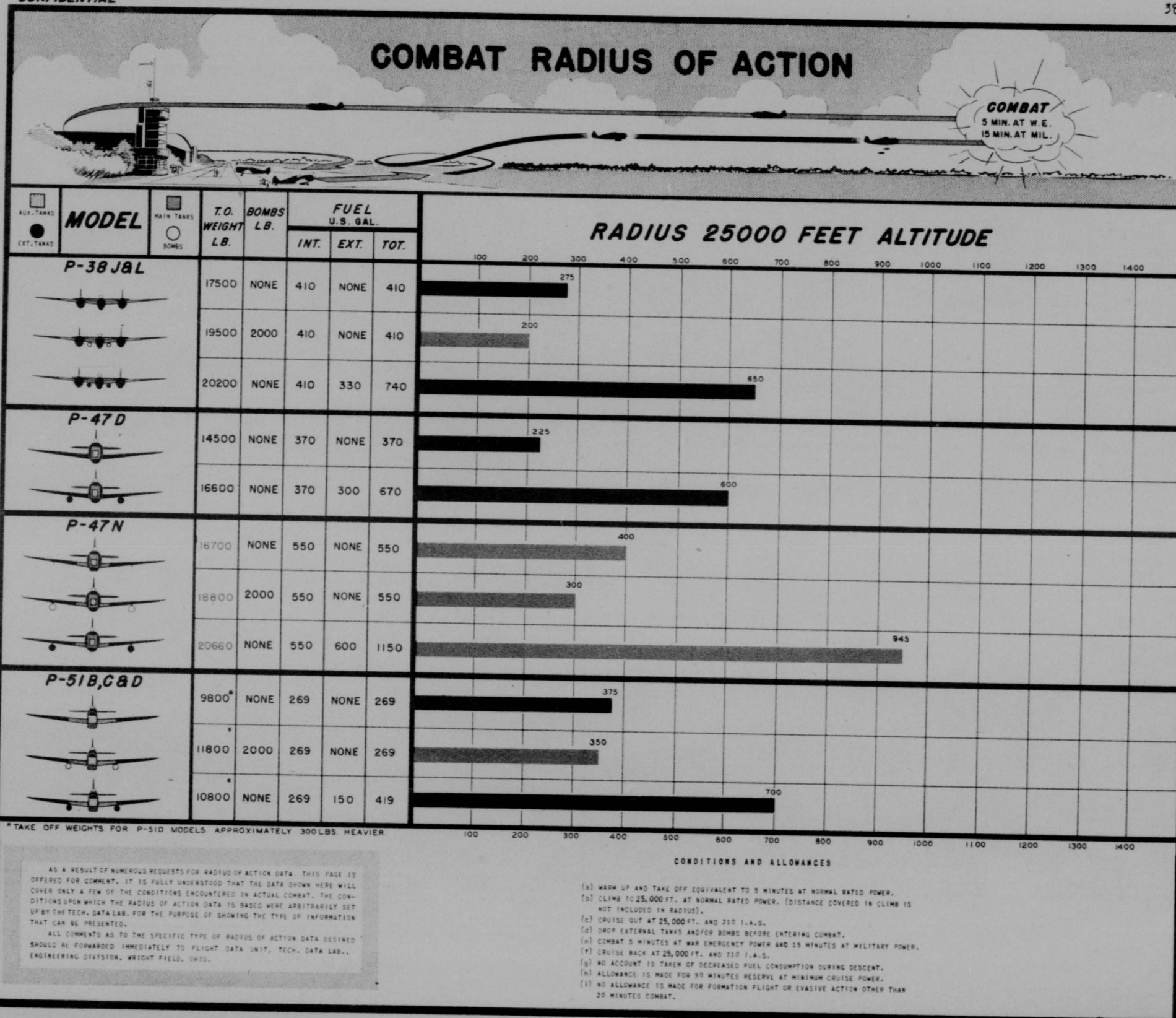
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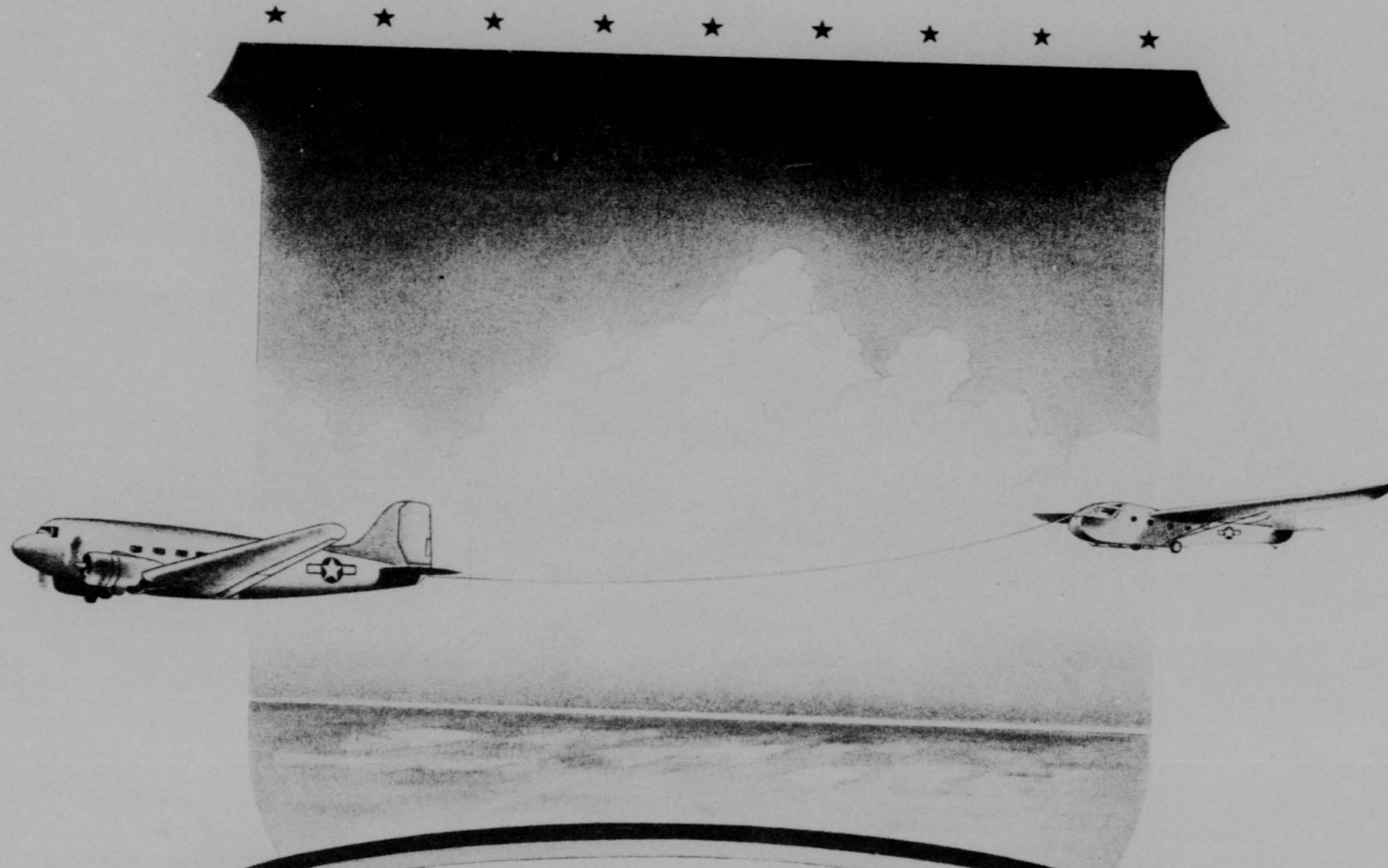
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**GLIDER AND
TOWPLANE SECTION**

JANUARY -1945

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FOREWORD

WARNING

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

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

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

RANGE and ENDURANCE are based on the following assumptions:

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

DEFINITIONS

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

RED PRINT: Preliminary estimates or calculated data.

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART																				AS OF:	
BOMBER TOWPLANE AND CG-4A GLIDER																				20 DEC. 1944	
TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE STATUTE AIR MILES-NO WIND-NO RESERVE MAXIMUM						REMARKS	
	GLIDERS			TOWPLANE			MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED I.A.S.	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)		TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)									RADIUS (MI.)	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE (MI.)		ENDUR. (HRS.)
	(LB.)	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(FT.)	I.A.S.	(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)	6.8	6.0	5000	1380	8.8	* LIMITED- NO OXYGEN IN GLIDER
															(980)	6.3	5.5	10000	1370	9.1	
B-17F & (2) CG-4A	7500	3800		52500	NONE	1700	150	6000	110	4100	135	300	11000	57	510	3.4	3.1	5000	720	4.8	
	7500	3800		59100	NONE	2780	150	6950	110	4700	135	240	8000	44	860	6.0	5.2	5000	1110	7.9	
B-24D & (1) CG-4A	7500	3800		52500	NONE	2344	150	4225	115	3475	140	530	12000*	24	(870)	5.7	4.7	5000	1360	8.8	* LIMITED- NO OXYGEN IN GLIDER
	7500	3800		59000	6000	2344	150	5075	115	4125	140	325	12000*	41	(830)	6.6	4.1	10000	1280	7.8	
B-25C & (1) CG-4A	7500	3800		30000	2000	972	150	5075	120	4175	140	390	12000*	38	540	3.4	3.0	5000	700	3.8	* LIMITED- NO OXYGEN IN GLIDER

NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143 dated 15 SEPT. 1944.
- (2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

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

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

TOW PLANE PERFORMANCE WITH CG-4A TO BE SAME AS WITH CG-14A.

GLIDER CHARACTERISTICS

WEIGHT

B - BASIC
C - COMBAT
W - WAR MAX

B - (3700 to 4500)
C - 7500
W - 9000



SIZE

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

TYPICAL GLIDER CAPACITIES

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

S - 83'8"
L - 128'4"
H - 12'7"
T - 9'1/2"
W (Tact. gear) - 852 Sq. Ft.

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 15
AS OP
20 DEC. 1944

CARGO TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING					TAKE OFF (WITH GLIDER ATTACHED) SL-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE					REMARKS		
	GLIDERS		TOWPLANE			MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (I.A.S.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)		MAX. RANGE (WITH GLIDER)	
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS (LB.)	FUEL (U.S. GAL.)									RADIUS (MI.)	TIME OUT (HRS.)	TIME BACK (HRS.)			RANGE (MI.)	ENDUR. (HRS.)
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(FT.)	(I.A.S.)	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS.)	(HRS.)	(MI.)	(HRS.)			
C-46A & (1)CG-4A	7500	3800	45000	3000	1400	150	5150	95	3500	125	275	10000	47	650	4.8	3.4	5000	950	7.0	BETTER PERFORMANCE EXPECTED UPON FURTHER FLIGHT TESTING.
C-46A & (2)CG-4A	7500	3800	45000	3000	1400	150	8300	95	5650	120	100	3000	30	410	3.2	2.3	1000	530	4.2	A S A B O V E
C-47, 47A & 53 (STD. BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4425	85	3000	120	275	11350	44	560	4.6	4.4	5000	830	6.8	
C-47, 47A & 53 (PADDLE BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4625	80	3050	105	515	12000*	31	575	4.8	3.6	5000	955	7.9	*LIMITED- NO OXYGEN IN GLIDER.
	7500	3800	29000	6000	804	150	5400	85	3250	105	410	11300	37	515	4.5	3.4	5000	870	7.3	
	7500	3800	31000	8000	804	150	5950	85	3450	105	350	10400	39	520	4.4	3.1	5000	820	6.9	
C-47, 47A & 53 (PADDLE BLADE PROPS) & (1)CG-4A (TOWPLANE EQUIPPED WITH PARA-PACK RACKS)	7500	3800	26000	3000	804	150	4800	80	3200	105	465	11800	35	525	4.4	3.6	5000	870	7.3	
	7500	3800	29000	6000	804	150	6150	80	3400	105	370	10600	38	485	4.1	3.4	5000	830	7.0	
C-47, 47A & 53 (PADDLE BLADE PROPS) & (2)CG-4A	7500	3800	24200	1200	804	150	6200	80	3525	105	220	7800	46	450	4.0	2.8	2000	665	5.8	* TO 3000 FT. ALTITUDE.
	7500	3800	26000	3000	804	150	6900	80	3750	105	180	7300	50	435	3.8	2.7	2000	630	5.5	
	7500	3800	29000	6000	804	150	7550	80	4450	105	125	8000	57	395	3.7	3.1	2000	520	4.5	
	7500	3800	31000	8000	804	150	8850	85	5550	105	80	-	38*	370	3.4	2.9	1000	470	4.4	
C-60A & (1)CG-4A	7500	3800	18500	NONE	644	150	4000	85	2750	120	550	12000*	37	580	4.3	3.6	5000	940	6.9	*LIMITED - NO OXYGEN IN GLIDER.
	7500	3800	21500	3000	644	150	5425	85	3675	120	320	11500	48	410	3.1	2.5	5000	560	4.2	
C-60A & (2)CG-4A	4700	1000	18500	NONE	644	150	6200	85	4100	120	250	8000	40	360	2.7	2.2	5000	540	4.5	
	7500	3800	18500	NONE	644	150	7000	85	4500	120	200	7300	44	330	2.5	2.0	5000	475	3.6	

NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143 dated 15 SEPT. 1944.
(2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

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

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

GLIDER CHARACTERISTICS

WEIGHT	GLIDER CHARACTERISTICS	SIZE
B-BASIC		S- SPAN
C-COMBAT		L- LENGTH
W-WAR MAX		H- HEIGHT
		T- TREAD
		W- WING AREA
B- (3700) (4500)	<p>TYPICAL GLIDER CAPACITIES</p> <p>(a) TROOP CARRIER: CREW(2) & TROOPS(13). (b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1). (c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(16 RES.)</p>	S- 83'8"
C- 7500		L- 48'4"
W- 9000		H- 12'7"
		T- 9'4"
		W- (Tact. gear) 852 SQ.

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART																					
FIGHTER TOWPLANE AND CG-4A GLIDER																					
TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) SL-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED I.A.S.	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT/MIN)	SERVICE CEILING (FT.)	TIME TO 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 (US GAL)	MAX. TOW SPEED (M.P.H.)								RADIUS	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE	ENDUR.		
P-38G & (1) CG-4A	7500	3800	15500	NONE	300	150	4000	100	3250	120	1000	12000*	15	270	1.9	1.4	5000	400	2.9	* LIMITED- NO OXYGEN IN GLIDER: SERVICE CEILING of 20000 ft. CAN BE REACHED IN 40 MINUTES IF OXYGEN IS INSTALLED IN GLIDER.	
COLUMN—	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

NOTES:

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

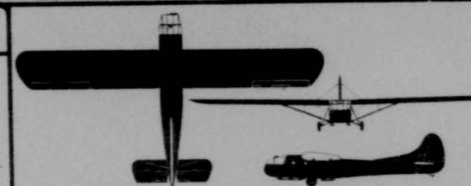
MINIMUM OF 200 LB. BALLAST IS REQUIRED IN NOSE OF P-38G WHEN NO AMMUNITION IS CARRIED.

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

GLIDER CHARACTERISTICS

WEIGHT

- B - BASIC
- C - COMBAT
- W - WAR MAX.



SIZE

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

TYPICAL GLIDER CAPACITIES

- B - (3700 to 4500)
- C - 7500
- W - 9000

- (a) TROOP CARRIER: CREW(2) & TROOPS(13).
- (b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).
- (c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(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 49 AS OP: 20 DEC. 1944																				
CARGO TOWPLANE AND CG-13A GLIDER																				
TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS
	GLIDERS			TOWPLANE			TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED I.A.S.	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS (LB.)		TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL)								MAX TOW SPEED (M.P.H.)	RADIUS (MI.)	TIME OUT (HRS.)		TIME BACK (HRS.)	RANGE (MI.)	
C-47,47A & 53 PADDLE BLADE PROPS & (1) CG-13A	10000	1300		24200	1200	804	195	4600	85	3000	105	460	12000*	36	555	4.8	3.6	2000	855	7.4
	15700	7000		24200	1200	804	195	5700	90	3600	105	300	9500	41	485	4.2	3.2	2000	725	6.3
	17700	9000		24200	1200	804	195	6350	90	3850	105	215	8500	45	460	4.0	3.0	2000	675	5.9
C-60A & (1) CG-13A	9500	800		18000	NONE	644	-	5000	85	3350	120	400	12000*	39	420	3.1	2.6	5000	590	4.4

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

NOTES:

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

GLIDER CHARACTERISTICS

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

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART																					
CARGO TOWPLANE AND CG-15A GLIDER																					
TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE							REMARKS
	GLIDERS			TOWPLANE			MAX. TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (I.A.S.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS (LB.)		TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)									RADIUS (MI.)	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE (MI.)	ENDUR. (HRS.)	
C-47 47A& 53 PADDLE BLADE PROPS & (1) CG-15A	8000	3950		26000	3000	80L	180	4850	80	3125	105	485	*12000	37	555	4.4	3.8	5000	850	6.8	
	8000	3950		29000	6000	80L	180	5575	85	3650	105	365	10500	45	520	4.2	3.5	5000	775	6.2	
	8000	3950		31000	8000	80L	180	6175	85	4025	105	320	9500	45	490	3.9	3.3	5000	720	5.7	

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

GLIDER CHARACTERISTICS		
WEIGHT		SIZE
B- BASIC		S- SPAN
C- COMBAT		L- LENGTH
W- WAR MAX		H- HEIGHT
		T- TREAD
		W- WING AREA
TYPICAL GLIDER CAPACITIES		
B- 4050	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	
C- 8000	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	
W- 9000	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RLS.)	

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