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REPORT NO. TSEAL-6-AI

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AAF AIR TECHNICAL SERVICE COMMAND

TACTICAL PLANNING

Characteristics & Performance Chart

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PUBLISHED BY CHIEF, ENGINEERING DIVISION, AIR TECHNICAL SERVICE COMMAND, WRIGHT FIELD, OHIO.

Attention
FUTURE ISSUES OF THIS CHART
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THE NEXT ISSUE WILL BE JAN. 1946.

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SEPTEMBER-1945

BOMBER

CARGO

FIGHTER

GLIDER

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3-13
1745

REPORT NO. TSEAL-6-A1

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AAF AIR TECHNICAL SERVICE COMMAND

TACTICAL PLANNING

Characteristics & Performance Chart

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BOMBERS

CARGO

FIGHTERS

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MISC.

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IS CHART
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PAGE 2
AS OF:
30 AUGUST 1945

The following changes have been made since the July issue.



Based on new performance data received from from the Wright Field Flight Test Division, and from various contractors, present performance data on the P-47 and the P-51 with rockets, the A-26, C-46, C-47B and C-54E is changed as follows: P-47 - Effect of rockets on take-off, climb, speed and range is shown on page 35.

P-51 - Effect of rockets on speed, radius of action and take-off distance and change in P-51H War Emergency speeds and rates of climb with AN-F-28 fuel shown on page 36.

A-26 - Added rocket data and revised range figures to show increase over those previously shown. This is located on page 23.

C-46 - Increased range data previously shown by adding one more 100-gallon removable fuselage tank. High speed and rate of climb reworked to show slightly lower figures based on a fighter combat weight. May be found on page 25.

C-47 - Added military power rate of climb figures. Decreased ranges shown are due to higher fuel flows than those on which previous performance was based. This information is on page 27.

C-54 - Show increased performance in high speed and rate of climb at altitude. This information is on page 29.

UC-78 - Revised range data. May be found on page 43.

Performance data on the following airplanes was introduced for the first time in this publication and may be found in the Miscellaneous Section: OA-10, L-14, R-5 and R-6.



More and more emphasis is being placed on the B-29 which justifies more emphasis on its performance in this publication. Two technical representatives from ATSC have been sent to XX Air Force in Guam to act as advisors on cruise control and to funnel B-29 performance data to this organization for dissemination. In this issue the B-29 sample mission is presented based on conditions of temperature and humidity encountered in the Marianas. On Okinawa, where summers are hotter and more humid than in the Marianas, performance would be somewhat less than that shown. The Okinawa winter is colder and dryer than in the Marianas; therefore, increased performance may be expected over that shown. The general performance data on the B-29 has been reworked based on the information available in the latest Technical Order. The B-29 Sample Mission is located on page 11 and the general performance on page 13.

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Your

Request for this publication should be addressed to Director, ATSC, Wright Field, Dayton, Ohio.
Attn: TSEAL-6J Flight Data Branch.

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SECURITY CLASSIFICATION TSEAL-6-AI

PAGE 3
AS OF:
30 AUGUST 1945

MODEL & BLOCK NO.	ENGINE					PROPELLER			SIZE				WEIGHT		FUEL		GUNS		BOMBS		CARGO		RADIO	PERFORM			MODEL & BLOCK NO.												
	ENGINE MFR.	MODEL	SUPERCHARGER	TAKE-OFF H.P.	WAR EMERG./ALT.	MILITARY /ALT.	CONTINUOUS/ALT.	PROP. MFR.	PROP. DIA.	NO. OF BLADES	PROP. TYPE	SPAN	LENGTH	HEIGHT	TREAD	WING AREA	BASIC	COMBAT	WAR MAX.	COMBAT CREW	TANK TYPE OR LOCATION	NO. OF TANKS & CAPACITY		NO. & LOCATION	CAL./RDS./TYPE	ROCKET INS.		NO. & SIZE (INTER.)	NO. & SIZE (EXT.)	MAX. LOAD	STATION	CAPACITY	MAX. LOAD	REMARKS & REF.	TAKE-OFF & LAND	HIGH SPEED & CLIMB	RANGE & END.	REMARKS ON PERFORMANCE	FOOT NOTES
B-17																																							B-17
B-24																																							B-24
B-29																																							B-29
B-32																																							B-32
B-25																																							B-25
B-26																																							B-26
A-20																																							A-20
A-26																																							A-26
A-36																																							A-36
CARGO																																						CARGO	
P-38																																						P-38	
P-39(20-30 INCL) OTHER P-39's																																						P-39(20-30 INCL) OTHER P-39's	
P-40																																						P-40	
P-47M & N OTHER P-47's																																						P-47M & N OTHER P-47's	
P-51																																						P-51	
P-51H																																						P-51H	
P-61																																						P-61	
P-63																																						P-63	
P-80																																						P-80	
CG-4A																																						CG-4A	
CG-13																																						CG-13	
CG-15																																						CG-15	

NOTES

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(Page 11).....B-29 SAMPLE MISSION
(Page 40).....FIGHTER COMBAT RADIUS ACTION

DECL
ROD DIR 5200.9, 2Z Sep 58

THE SECURITY CLASSIFICATION SHOWN ABOVE IS SPECIFICALLY FOR THE MATERIAL GIVEN IN THE SEPT. 1945 ISSUE OF THE TACTICAL PLANNING CHARACTERISTICS AND PERFORMANCE CHART
EACH DOCUMENT SHOULD BE GRADED ACCORDING TO ITS OWN CONTENT AND NOT NECESSARILY ACCORDING TO ITS RELATIONSHIP TO ANOTHER DOCUMENT (PARAGRAPH 8 d, 4R 380-5)

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NOTE:
ALL OTHER
GLIDER DATA
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FOREWORD

This chart is a supplement to the Semi-Annual Chart of Engineering Characteristics and Performance, TSEAL-6-A2 "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 necessarily actual flight test results. For detailed planning see T.O. listed as references.

WARNING

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

Performance is based on the requirements of Army-Navy Aeronautical specification AN-H-8a; "Handbooks, Pilot's Flight Operating Instructions" which sets forth specific allowances for practical service operation. Take off and landing distances are 125% of optimum at 3000 ft. on hard surface, no wind, standard temperature. Weights are "Basic" weight plus crew, oil, full ammunition, fuel and bombs, cargo, passengers or troops as applicable. For bombers and cargo, "War Maximum" weights are based on limiting applied positive maneuver factor of 2.00G unless otherwise specified. All speeds shown are true air speeds. 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 max. cont. at S.L.).
- (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.)

THIS REPORT SUPERSEDES PREVIOUS TSEAL-6-A1 PUBLICATIONS; SUPERSEDED PUBLICATIONS, IF NO LONGER OFFICIALLY REQUIRED, WILL BE DESTROYED IN THE MANNER PRESCRIBED IN 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: Military power for combat at altitude shown, (usually limited to 15 min. duration)	Practical total cargo based on gross weight. Values are at least 125% of optimum.
WE: War emergency power for combat at altitude shown, (limited to 5 min. duration only)	TAKE OFF & LANDING: (At 3000' runway alt.)
C: Maximum power for continuous operation.	Gross weight: (To clear 50')
Note: Maximum cruise power is the maximum power for unlimited operation with lean mixture.	Arbitrary values for reference only.
SIZE: Approximate dimensions for storage planning.	Distances representative of minimum airport requirements.
Length: Does not include protruding guns.	Distances representative of minimum runway requirements.
Height: Maximum in three point position.	Practical minimum for average pilot.
Wing area: Standard aerodynamic surface area.	HIGH SPEED & CLIMB: Values are for clean new airplanes.
Tread: Center to center main wheels: (outboard if dual).	Military power: For limited periods of combat operation.
WEIGHTS: Approximate averages for planning purposes.	War emergency power: (Performance with War Emergency ratings are shown when applicable).
B: Includes all equipment, that has a fixed location and is actually present in the airplane; air frame; power plant; and accessories; trapped fuel oil; full hydraulic; cooling and anti-icing fluid systems and reservoirs; armor plate, ordnance (less ammunition & bombs); chemical, navigation, oxygen, pyrotechnics, and radio equipment.	Time to climb: Time to climb from sea level based on maximum continuous power unless otherwise noted.
BASIC WEIGHT:	RANGE & ENDURANCE: See discussion in "FOREWORD", page 2
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.	Take off weight: Brief list of typical gross weights.
W: War maximum weight for special missions, limited by structural considerations, based on a positive maneuver factor of 2.0 unless otherwise noted. Wing tanks must be full.	Bombs, etc: Typical loadings combined with various tank capacities. No consideration is given to loadings requiring partially filled tanks.
M: Recommended max. landing as established in Tech. Order 01-1B-44. (10 March 1945).	Note: Take off weights with corresponding load and fuel quantity applies to all values to the right on the same line.
FUEL & OIL Standard fuel tankage and capacities as well as max. oil.	Max. cont. power: High speed cruising with rich mixture. (For emergency cruising only)
ARMAMENT: Resume' of information in the "ARMAMENT & BOMB INSTALLATIONS CHART" TSEAL-6-A5.	Max. cruise power: Maximum continuous operation with lean mixture setting.
RADIO Resume' of typical models that may be installed.	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"

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MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-BO (-1 thru -27)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500 565	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	3600	2550
B-17F-BO (-30 thru -50)	NONE 1) 2) 2) 2)	NONE 300 b 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	2-4000 2-2000 2-1600 2-1000	6-1600 2-4000x	AS ABOVE
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 -50 & SUB.
B-17F-BO Last 70(-85) thru -130	3) 1) 2) 2) 2)	300 300 300 400 500 565	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) 1) 2) 2) 2)	300 365 300 c 600 d 400 500 565 e	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	MOUNT LUGS & CONTROLS RETAINED	9600	AS ABOVE

NOTES: a NOSE GUN DELETED LAST 35(-27). d EARLY MODELS CARRY 300 RDS./GUN.
b RADIO COMPART. GUN ADDED AFTER 16th(-30). e CHEYENNE TAIL MOUNT ON LAST 20(-90)
c RADIO COMP. GUN DELETED LAST 68(-105 & -110). AND SUBSEQUENT. x EXTERNAL

DOUGLAS (LONG BEACH) "DL"

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-DL -1 thru 1st.13(-10)	1-.30 2-.50 2-.50 2-.50	500 a 300 400 500 565	NOSE...FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-DL Last 12(-10) thru -20	2) 1) 2) 2) 2)	300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE	PROV. FOR EXTERNAL RACKS ON -20 & SUB.	AS ABOVE	AS ABOVE
B-17F-DL -25 thru 1st.21(-35)	A S	A B O V E	AS ABOVE	PROV. FOR EXTERNAL RACKS	AS ABOVE	AS ABOVE	3630
B-17F-DL Last 19(-35) thru -65	3) 1) 2) 2) 2) 2)	300 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	A S	A B O V E		AS ABOVE
B-17G-DL (-1 thru -95)	2) 1) 2) 2) 2)	300 365 300 c 600 d 400 500 565 e	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE EXCEPT ONLY MOUNT- ING LUGS & CONTROLS RETAINED FOR EXTERNAL BOMBS ON (-80) & SUBSEQUENT MODELS.			AS ABOVE

NOTES: a NO NOSE GUN ON 1st.13(-10). d EARLY MODELS CARRY 300 RDS./GUN.
b NOT CARRIED ON -1 & -5. e CHEYENNE TAIL MOUNT ON (-50) & SUBSQT.
c RADIO COMPART. GUN DELETED (-75) & SUBSQT. x EXTERNAL

VEGA (BURBANK) "VE"

GENERAL NOTE:

THE 6x1600 LB. ARMOR PIERCING BOMBS
MAY BE CARRIED, BUT BOMB RAIL LOAD
FACTORS AND CLEARANCES ARE REDUCED
AND MANEUVERING OF AIRPLANE MUST BE
LIMITED ACCORDINGLY.

MODEL & BLOCK NO.	ARMAMENT			BOMBS			FUEL U.S. GAL. (MAXIMUM)
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	INTERNAL	EXTERNAL	MAX. LOAD LB.	
				NO & SIZE	NO & SIZE		
B-17F-VE (-1 thru -10)	1-.30 CAL. (300 RDS.) IN 1st. 12 AIRPLANES; NOSE GUN DELETED ON NEXT 28 THRU (-10). NO RADIO COMPARTMENT GUN UNTIL LAST 14(-15). OTHER ARMAMENT AS BEYOND		NOSE GUN	2-2000 6-1600 6-1000 12- 500 16- 250 24- 100	NONE	9600	2550
B-17F-VE (-15 & -20)	2) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE	EXTERNAL RACKS ON Last 31 (-20) & SUB.	AS ABOVE	AS ABOVE
B-17F-VE (-25 & -30)	A S	A B O V E	AS ABOVE	b 2-4000 2-2000 2-1600 2-1000		6-1600 2-4000x 17600	2550 (B-17F-25) 3630 (B-17F-30)
B-17F-VE (-35 thru -50)	3) 1) 2) 2) 2)	300 300 300 400 500 565	NOSE...FLEX. RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	AS ABOVE EXCEPT ONLY MOUNT- ING LUGS & CONTROLS RETAINED FOR EXTERNAL BOMB RACKS ON (-35) & SUBSEQUENT MODELS.			3630
B-17G-VE (-1 thru -110)	2) 1) 2) 2) 2)	300 365 300 e 600 d 400 500 565 c	CHEEK...FLEX. CHIN TURRET RADIO COMPART. SIDE WAIST-FL. UPPER TURRET LOW BALL TRR. TAIL...FLEX.MT.	A S	A B O V E		

NOTES: a NOT ON (-1) & (-5). d EARLY MODELS CARRIED 300 RDS./GUN.
b EXTERNAL RACKS DELETED LAST 4(-30); e RADIO GUN STOWED (-35) thru 1st. 16(-35);
LUGS & CONTROLS RETAINED. RADIO GUN DELETED LAST 24(-85) & SUBSQT.
c CHEYENNE TAIL MOUNT ON LAST 11(-55) & SUBSQT. x EXTERNAL

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Page 3A
As of:
11 August 1945.

SECURITY CLASSIFICATION NOTICE

Due to a very poor printing job a number of security classification designations are incorrectly shown on page 3, the classification page. The following is submitted for your information and is the correct security classification for the material presented in the 1 August 1945 issue of Report No. TSEAL-6-A1:

1. B-24 Radio Restricted.
2. B-29 Fuel, Guns, Bombs (number and size internal) Restricted.
B-29 Bombs (Maximum load), Radio Confidential.
3. B-32 Combat Crew, Fuel, Guns, Bombs (No. & size inter), Radio Restricted.
B-32 Bombs (Maximum load) Confidential.
4. B-25 Rocket Inst., Radio Restricted.
5. A-20 Rocket Inst., Restricted.
6. A-26 Bombs Restricted.
7. All Cargo Cargo Information Restricted.
8. P-47 Rocket Inst. Restricted.
9. P-51 Rockets Restricted.
10. P-61 Engine (Supercharger), Bombs (Maximum load) Restricted.
11. P-80 Size, Restricted.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

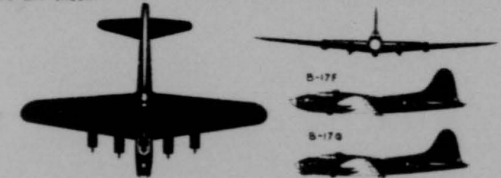
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MODEL & BLOCK-NO.	ENGINE & PROP.			SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T - TAKE OFF W - WAR EMERG. M - MILITARY C - CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX LAND	NOTES	FUEL TANKAGE		NO. AND SIZE			NO. AND SIZE		TYPICAL MODELS CARRIED			
							TYPE OR LOCATION ALSO (MAX. OIL)		NO AND CAPACITY ALSO (MAX FUEL)	NO GUNS AND SIZE	RDS PER GUN	LOCATION AND TYPE	INTERNAL		EXTERNAL	MAX. LOAD	
B-17F (LATEST MODEL)	4	WRIGHT R-1820-97 TURBO HAMILTON STD. 11"7" DIAL-3 BL. F.F., HYDROMATIC	T 1200/3 L W 1380/25000a M 1200/27000 C 1000/30000	S 103'9" L 74'9" H 19'1" T 21'2" W 1420 Sq. ft.	B 39000 C 55000 W 72000* M 50000	ABSOLUTELY ESSENTIAL THAT ALL THESE WEIGHTS & THAT MAXIMUM VIEW BE KEPT TO A MINIMUM.	MAIN - WINGS 5-1730 WING TIPS 2 x 540 BOMB BAY 2 x 410 (148)	31 21 11 21 21 21	300 300 300 400 500 555	NOSE - FLEX. SIDE WAIST-FLEX. RADIO COMPART. UPPER TURRET LOW BALL TURRET TAIL-FLEX. MOUNT	2-2000 6-1900 6-1000 12-500 18-250 24-100	2-4000 2-2000 2-1800 2-1000	6-1600 2-4000 17500	SEE NOTE (A)	REFER TO PAGE 4 FOR "FOREWORD." REFER TO PAGE 3 FOR SECURITY CLASSIFICATION. REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.		
B-17G (LATEST MODEL)	4	AS ABOVE	T 1200/3 L W 1380/28700 a M 1200/32700 b C 1000/35200 b	S 103'9" L 74'9" H 19'1" T 21'2" W 1420 Sq. ft.	AS ABOVE	AS ABOVE EXCEPT PROVISIONS ONLY, FOR THE BOMB BAY FUEL TANKS.	31 21 11 21 21 21	300 385 400 400 500 565	CHEEK - FLEX. CHIM TURRET SIDE WAIST-FLEX. UPPER TURRET LOW BALL TURRET CHEYENNE TAIL MT.	AS ABOVE	MOUNTING LUGS & CONTROLS RETAINED FOR EXTERNAL RACKS.	9600	AS ABOVE	B-17F TECH. ORDER 01-20EF-1 (REV. 10 FEBRUARY 1945) B-17G TECH. ORDER 01-20EG-1 (REV. 25 FEBRUARY 1945) (a) WAR EMERGENCY POWER PERMITTED ONLY WHEN CARBURETORS MODIFIED TO PARTS LIST NO. 395563-3. (b) EARLIER B-17G'S HAD CRITICAL ALTITUDE SHOWN FOR B-17F MODELS. (c) EARLY MODELS HAVE 74'9" LENGTH. (d) SEE PAGE OPPOSITE FOR DETAILED ARMAMENT BREAKDOWN.			
			T W M C	S L H T W	B C W M												

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND 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		LOADING			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	TAKE OFF WEIGHT LB	BOMBS CARB.	TOTAL FUEL U.S. GAL	at 10000 FT.	at 25000 FT.	at 10000 FT.	at 25000 FT.		at 10000 FT.	at 10000 FT.			
B-17F	40000	-	3000	90	-	1200	30000	312	550	298	400	280	225	52.0	65500	NONE	3630	-	-	-	-	-	3500 ^g	21.3 ^h				
	45000	-	3500	95	-	1500	25000	314	1025	299	725	274	450	36.2	59500	NONE	2810	1400	6.1	1550	6.2	2050	10.1	2150	9.9	2800	17.4	
	50000	3200	4000	100	2300	1900	20000	303	1150	288	850	256	550	25.7	59500	NONE	2810	1400	6.1	1550	6.2	2050	10.1	2100	9.9	2700	17.4	
	55000	4000	4500	104	3100	2400	15000	288	1250	274	950	255	675	17.3	63500	4000	2810	1400	6.1	1550	6.2	2050	10.1	2100	9.9	2700	17.4	
	60000	4800	-	3700	-	-	10000	278	1350	263	1050	245	750	10.2	65500	6000	2810	1400	6.0	1500	6.0	2000	10.0	-	-	2600	17.2	
	65000	5300	-	4900	-	-	5000	265	1425	252	1125	236	825	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-17G		A	S	A	B	O	V	E							65500	NONE	3630	-	-	-	-	-	-	3100 ^g	17.1 ^h			
	25000						20000	291	1050	277	750	255	385	37.0	59500	NONE	2810	1400	6.3	1500	6.2	2000	10.0	2250	8.6	2550	14.4	
	15000						10000	280	1200	267	800	245	500	26.0	63500	4000	2810	1400	6.3	1440 ^g	6.2 ^g	1950	10.0	1650 ^f	8.7 ^f	2350	13.0	
	10000						5000	269	1300	256	1000	234	580	16.0	65500	6000	2810	1400	6.3	ABOVE PRAC. CEIL.	ABOVE PRAC. CEIL.	1800	9.8	ABOVE PRAC. CEIL.	ABOVE PRAC. CEIL.	2250	12.5	
	5000							758	1400	246	1100	223	620	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTES: (A) EARLIER... POSSIBLE THEATER USE ONLY (1945)

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



B-17

"FORTRESS"

MANUFACTURED BY BOEING - DOUGLAS - VEGA

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CONSOLIDATED (SAN DIEGO) "CO"

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

NOTES: a B-24J's HAVE TAIL TURRET; B-24L's HAVE HAND HELD GUNS IN TAIL &
 * NOT ON B-24D-25 B-24M's HAVE LIGHT WEIGHT TAIL TURRET.
 b B-24N-20 HAS PROVISIONS FOR ONLY 250 RDS. PER GUN AT SIDE WAIST POSITION.

CONSOLIDATED (PT. WORTH) "CP"

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

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

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DOUGLAS (Tulsa) "DT" & 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-24E-DT & FO (-1 thru -15)	2) 2) .50 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TR. TAIL TURRET	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	3614
B-24E-DT & FO (-20 thru -30)	2) 2) .50 2) 2)	600 500 ^b 400 508 600	NOSE TURRET S. WAIST-EG MT. UPPER TURRET LOW BALL TR. TAIL TURRET	A S	A B O V E		
B-24E-DT (-1 thru -10) B-24E-FO (-1 thru -20)	B-24E-DT & FO AIRPLANES RECEIVE NEW B-24J DESIGNATIONS WHEN C-1 AUTOMATIC PILOT & M-9 BOMB SIGHT REPLACE A-5 AUTOMATIC PILOT & S-1 BOMB SIGHT.						
B-24L-FO (-1 thru -20) B-24M-FO (-1 thru -30)	2) 2) .50 2) 2)	600 500 400 508 600	NOSE TURRET S. WAIST-EG MT. UPPER TURRET LOW BALL TR. TAIL-HAND HELD	4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	3614

NOTES: a B-10 SHACKLES FOR 8-1600 A.P. BOMBS START ON 2101st. FORD KNOCK-DOWN SET.
 b B-24E-20's HAVE PROVISIONS FOR ONLY 250 ROUNDS PER 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	3) 2) 2) .50 2) 2)	230 TOT. 250 400 508 600	NOSE.....FLEX. SIDE WAIST-FL. UPPER TURRET LOW BALL TR. TAIL TURRET	4-2000 8-1000 12- 500 12- 250 20- 100	NONE	8000	3614
B-24G-NT (-1 thru -5)	2) 2) .50 2) 2)	600 250 400 508 600	NOSE TURRET SIDE WAIST-FL. UPPER TURRET LOW BALL TR. TAIL TURRET	A S	A B O V E		AS ABOVE
B-24G-NT (-10 thru -15)	A S	A B O V E		4-2000 8-1600 8-1000 12- 500 12- 250 20- 100	NONE	12800	AS ABOVE
B-24J-NT (-1 & -5)	A	S	A	B	O	V	E

NOTES: a LOWER BALL TURRET ON 5th. & SUBSEQUENT; NO TUNNEL GUN ON 1st. 4. ARTICLES.
 B-24G-20-NT AIRPLANES ARE DESIGNATED B-24J-1, ETC. WHEN
 C-1 AUTOMATIC PILOT & M-9 BOMB SIGHT REPLACE A-5 AUTO-
 MATIC PILOT & S-1 BOMB SIGHT.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE	WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		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. M-MAX LAND		FUEL TANKAGE		NO. ROCKETS-SIZE-INSTALLATION			NO. AND SIZE		TYPICAL MODELS CARRIED	REFER TO PAGE 4 FOR "FOREWORD." REFER TO PAGE 3 FOR SECURITY CLASSIFICATION. REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.		
			T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS				TYPE OR LOCATION ALSO (MAX. OIL)	NO AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL				MAX. LOAD
B-24D (LATEST MODEL)	4	PRATT-WHITEY R-1830-43 11" x 45 TURBO HAMILTON STD. 11" x 7" DIA. - 3 BL. F. F., HYDROMATIC	T 1200 / S L W NONE M 1200/25500 C 1100/27000	S 110' 0" L 56' 4" H 18' 0" T 25' 8" W 1048 Sq. ft.	B 27000 C 56000 W 71200 * M 56000	10	MAIN - WINGS 12-2354 WING TIPS 2 x 255 BOMB BAY 2 x 400 (132)	3) 2) 2) 2)	100 250 400 508 600	NOSE - FLEX. SIDE WAIST - FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	4-2500 8-1600 8-1000 12-500 12-250 20-100	ONLY MOUNTING LUGS & CONTROLS INSTALLED	12900	SEE NOTE (A)			B-24D TECHNICAL ORDER 01-SEC-1 (REV. 25 DEC. 1944) B-24G, H, J, L & M TECH. ORDER 01-SEC-1 (REV. 30 JAN. 1945) (a) EARLY B-24G, H & J * HAD CRITICAL ALTITUDE AS LISTED FOR B-24D. (b) ARMAMENT SHOWN FOR LATEST B-24J-FO. SEE PAGE OPPOSITE FOR DETAILED BREAKDOWN.
B-24G, H & J (LATEST MODEL)	4	AS ABOVE	T 1200 / S L W NONE M 1200/31800 ^a C 1100/31500 ^a	S 110' 0" L 57' 2" H 18' 0" T 25' 8" W 1048 Sq. ft.	B 38000 C 56000 W 71200 * M 56000	10	AS ABOVE	2) 2) 2) 2)	700 ^b 500 400 550 600	NOSE TURRET SIDE WAIST - FL. UPPER TURRET LOW BALL TURRET TAIL TURRET	AS ABOVE	AS ABOVE	AS ABOVE				
B-24L & M (LATEST MODEL)	4	PRATT-WHITEY R-1830-55 TURBO HAMILTON STD. 11" x 7" DIA. - 3 BL. F. F., HYDROMATIC	T W M C	S L H T W	B C W M	10	AS ABOVE	AS ABOVE EXCEPT: B-24L HAS HARD WELD FLEX. TAIL GUNS. B-24M HAS LIGHT WEIGHT TAIL TURRET.			AS ABOVE	AS ABOVE	AS ABOVE				

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT						RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS					
	GROSS WEIGHT	TO CLEAR 50'		LANDING SPEED	GROUND RUN		STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		LOADING		MAX. CONTINUOUS POWER				MAX. CRUISE POWER				LONG RANGE		
		T.O. DIST.	LAND DIST.		T.O. DIST.	LAND DIST.		HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS CARR. LB.	TOTAL FUEL U.S. GAL.	at 10000FT.		at 25000FT.		at 10000FT.		at 25000FT.		
B-24D	40000 45000 50000 55000 60000 65000	- 3300 3900 4800 6400 9100	90 85 100 105 4600 5500	2800 3000 2700 3400 4600 5500	30000 25000 20000 15000 10000 5000	NONE	303 290 277 264 253 252	900 1000 1150 900 1200 1200	297 284 272 257 259 246	700 800 950 1050 1000 1050	30.2 22.0 15.4 9.7 4.2	56000 61000 61500 60500	NONE NONE 3000 5000	3514 3154 2814 2354		at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	3500 ^c 3200 2750 2500 2300	18.0 ^c 15.4 14.0 13.0	(c) MAX. FERRY RANGE MAY BE RESTRICTED BY INSUFFICIENT OIL IF ENGINE IS NOT IN BETTER THAN AVERAGE CONDITION. OIL CONSUMPTION VARIES FROM 3 QT. TO 3 GAL. PER HR. PER ENGINE DEPENDING ON TIME SINCE OVERHAUL.
B-24G, H & J		AS ABOVE	AS ABOVE	AS ABOVE	56000	NONE	290 277 264 254	825 775 900 975	250 287 275 245	200 33.6 25.0 17.6 11.4 8.5	46.0 33.6 25.0 17.6 11.4 5.3	65000 62000 62500 61500	NONE NONE 3000 5000	3514 3154 2814 2354		at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	at 10000FT. RANGE ENOUR	at 25000FT. RANGE ENOUR	3300 ^c 2900 1950 1700	18.2 ^c 15.4 14.0 11.7	
B-24L & M		AS ABOVE	AS ABOVE	AS ABOVE		AS ABOVE						64500 61500 62000 61000	NONE NONE 3000 5000	3514 3154 2814 2354		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE			

NOTES:

TABLE NO.	NAME	DATE
B-24-1
B-24-2
B-24-3
B-24-4
B-24-5
B-24-6
B-24-7
B-24-8
B-24-9
B-24-10
B-24-11
B-24-12
B-24-13
B-24-14
B-24-15
B-24-16
B-24-17
B-24-18
B-24-19
B-24-20

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B-24
"LIBERATOR"

MANUFACTURED BY CONSOLIDATED - DOUGLAS - FORD - NORTH AMERICAN

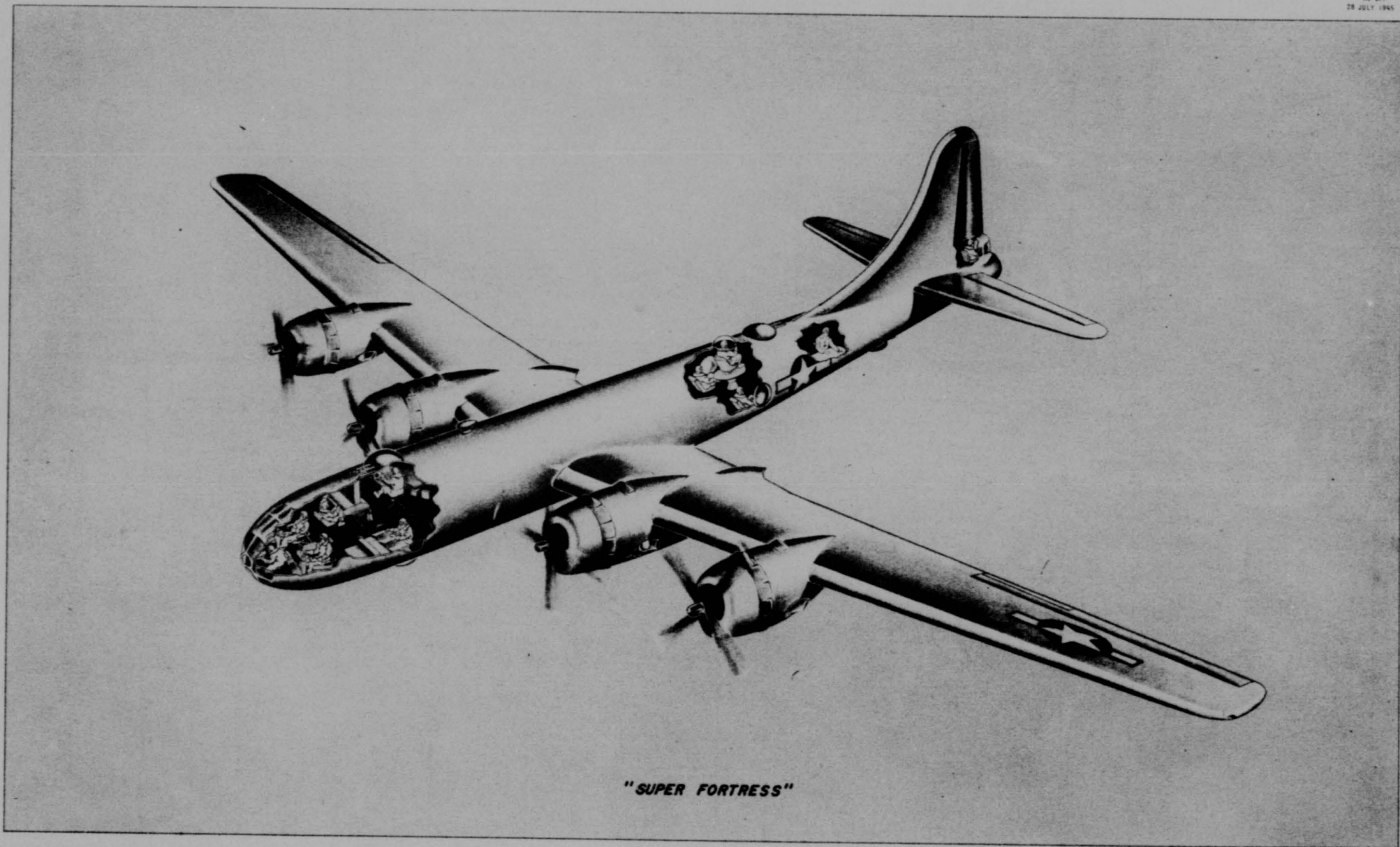
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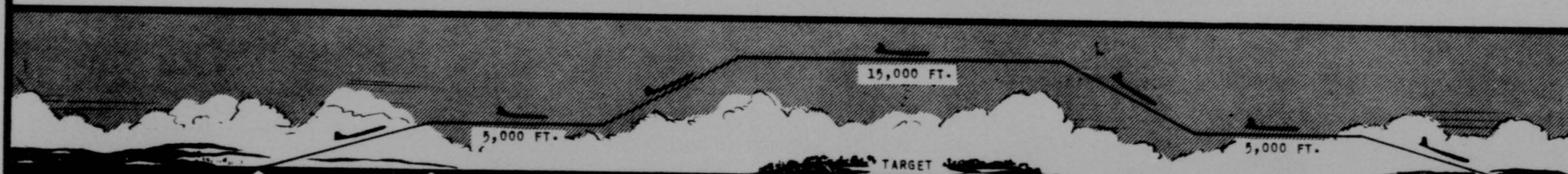
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SAMPLE B-29 MISSION



TOTAL STAT. MILES	0	33	1653	1693	1893	2285	3436	3586
TOTAL NAUT. MILES	0	29	1435	1470	1640	1980	2990	3110
TOTAL TIME		0.2	7.6	7.8	8.5	10.2	16.1	16.9
TOTAL FUEL	170	351	3350	3552	4144	4657	6197	6397
CAL. AIR SPEED	190	202-198	190	240-250	184-180	180-176	178	0
COWL FLAP ANGLE	W.O.-7°	1°	2½°	1½°	0°	0°	0°	0°
WEIGHT	137400	136300	118300	117100	97500	94500	85200	84000

Note:

- FUEL LISTED IN FIRST COLUMN IS ALLOWANCE FOR WARM UP TAKE-OFF AND CLIMB BASED ON 10 MINUTES OPERATION AT MAXIMUM CONTINUOUS POWER AT SEA LEVEL.
- NO ALLOWANCE HAS BEEN MADE IN RANGE FOR FORMATION FLIGHT, DIFFERENCES IN AIRPLANES, PILOT TECHNIQUE, WIND ETC.
- THE ABOVE DATA IS FOR COMBAT B-29 WITH TURRETS, BLISTERS, RADAR DOME, SHORT CHORD COWL FLAPS, LATEST ENGINE BAFFES AND IS BASED ON MARIANAS DATA. THE B-29 IS GREATLY AFFECTED BY TEMPERATURE CHANGES. AS AN EXAMPLE AN INCREASE OF 10° C IN TEMPERATURE HAS THE SAME EFFECT ON RATE OF CLIMB AS ADDING 5000 LB. TO SHIP WEIGHT.

GROSS WT. - 138400 LB.
 FUEL - 6988 GAL.
 BOMBS - 16000 LB.
 RANGE OF 3586 MILES
 (WITH 591 GAL. RESERVE)

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BOEING (ATLANTA) "BA"

MODEL & BLOCK NO.	ARMAMENT			FUEL		
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	TANK TYPE & LOCATION	NO. TANKS & CAPACITY	MAX. CAPACITY (U. S. GALS)
B-29-BA -1	1-20MM. 2) 2) .50 2) 2)	100 1000* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	OUTRD. WINGS IMRD. WINGS BOMB BAY	11-2726 8-2912 1x 640	8198
B-29-BA -5 thru 1st. 9 (-15)	A S	A B O V E		OUTRD. WINGS IMRD. WINGS CENTER WING BOMB BAY	11-2726 8-2912 1x-1350 1x 640	9516
B-29-BA 1st. 11 (-15) thru (-20)	1-20MM. 4) 2) .50 2) 2) 2)	100 875* 1000* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	
B-29-BA -25 thru 23 (-48)	4) 2) 2) .50 2) 2)	875* 1000* 1000* 1000* 1000*	UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	
B-29-BA -30 thru -60 (SEE **)	2-.50	1000*	POWER TAIL MT.	A S	A B O V E	

NOTES: * FILLER STRIPS ARE ADDED IN AMMUNITION CANS TO REDUCE ROUNDS TO 800 PER GUN.
** 2 CAL. 50 ON -30, -35, 1st. 47 (-40)
3 CAL. 50 ON LAST 15 (-40) THRU -66

BOEING (BOSTON) "BF"

MODEL & BLOCK NO.	ARMAMENT			FUEL		
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	TANK TYPE & LOCATION	NO. TANKS & CAPACITY	MAX. CAPACITY (U. S. GALS)
B-29-BF -1	1-20MM. 2) 2) .50 2) 2)	100 1000* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	OUTRD. WINGS IMRD. WINGS BOMB BAY	11-2726 8-2912 1x 640	8198
B-29-BF -5 thru 1st. 11 (-10)	A S	A B O V E		OUTRD. WINGS IMRD. WINGS CENTER WING BOMB BAY	11-2726 8-2912 3-1100 1x 640	9298
B-29-BF 1st. 9 (-10) thru (-15)	2) 2) 2) .50 2) 2)	1000* 1000* 1000* 1000* 1000*	UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	
B-29-BF -20 & -40	4) 2) 2) .50 2) 2)	875* 1000* 1000* 1000* 1000*	UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. POWER TAIL MT.	A S	A B O V E	

NOTES: * FILLER STRIPS ARE ADDED IN AMMUNITION CANS TO REDUCE ROUNDS TO 800 PER GUN.

TRAPPED UNAVAILABLE FUEL The following table is based on transfer of fuel from center section and bomb bay tanks with the body center line at 0° and wings level.

FLIGHT ATTITUDE WINGS LEVEL OF BODY	TOTAL TRAPPED FUEL (GAL.)
4° UP	87
2° UP	81
0°	93
2° DOWN	121
4° DOWN	163
6° DOWN	207
8° DOWN	249
15° DOWN	531
20° DOWN	667

NOTE

It is probable that a 20° nose down attitude will be reached while making a normal approach, however, if conditions warrant, an approach may be made as flat as 6° to 8° nose down.

BOEING (WICHITA) "BW"

MODEL & BLOCK NO.	ARMAMENT			FUEL		
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	TANK TYPE & LOCATION	NO. TANKS & CAPACITY	MAX. CAPACITY (U. S. GALS)
B-29-BW -1 thru -30	1-20MM. 2) 2) .50 2) 2)	100 1000* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	OUTRD. WINGS IMRD. WINGS BOMB BAY	11-2726 8-2912 1x 640	8198
B-29-BW -25 thru 1st. 25 (-40)	A S	A B O V E		OUTRD. WINGS IMRD. WINGS CENTER WING BOMB BAY	11-2726 8-2912 1x-1350 1x 640	9516
B-29-BW LAST 75 (-40) thru 1st. 80 (-50)	1-20MM. 4) 2) .50 2) 2) 2)	100 875* 1000* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	
B-29-BW Last 20 (-50) thru (-80)	4) 2) 2) .50 2) 2)	875* 1000* 1000* 1000* 1000*	UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	

NOTES: * FILLER STRIPS ARE ADDED IN AMMUNITION CANS TO REDUCE ROUNDS TO 800 PER GUN.

MARTIN (OMAHA) "M"

MODEL & BLOCK NO.	ARMAMENT			FUEL		
	NO GUNS & CALIBER	RDS. PER. GUN	LOCATION & TYPE	TANK TYPE & LOCATION	NO. TANKS & CAPACITY	MAX. CAPACITY (U. S. GALS)
B-29-M -1 thru 1st. 9 (-20)	1-20MM. 4) 2) .50 2) 2)	100 875* 1000* 1000* 1000*	TAIL, NR, TYPE B UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	OUTRD. WINGS IMRD. WINGS CENTER WING BOMB BAY	11-2726 8-2912 1x-1350 1x 640	9516
B-29-M Last 19 (-20) thru (-40)	4) 2) 2) .50 2) 2)	875* 1000* 1000* 1000* 1000*	UPPER POSE TEL. UPPER REAR TEL. LOWER POSE TEL. LOWER REAR TEL. TAIL POWER MT.	A S	A B O V E	

NOTES: * FILLER STRIPS ARE ADDED IN AMMUNITION CANS TO REDUCE ROUNDS TO 800 PER GUN.

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		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. M-MAX LAND		NOTES	FUEL TANKAGE		NO. ROCKETS-SIZE-INSTALLATION			NO. AND SIZE		MAX. LOAD	TYPICAL MODELS CARRIED	REFER TO PAGE 4 FOR "FOREWORD" REFER TO PAGE 3 FOR SECURITY CLASSIFICATION REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.
			T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS					TYPE OR LOCATION ALSO (MAX. OIL)	NO. AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL			
B-29 & A (LATEST MODEL)	WEIGHT R-3350-23, -234, -41, -57 or -58 TURBO HAMILTON STD. 157" DI. & -4 BL. F.F., HYDRASTIC	T 2320/11 L W 2430/32000 M 2310/33500 C 2120/36200	S 141' 3" L 99' H 29' 7" T 31' 5" W 1736 sq. ft.	B 75000 C 137000 W 152000* M 120000	11 12	OUTSIDE-WINGS 14-2728 14-2912 21-50 21-50 21-50 21-50 21-50	300 300 300 300 300 300	UPPER FURT. TAIL 8-2000 LOWER FURT. TAIL 12-1400 LOWER REAR TAIL 12-1000 TAIL POWER MT. 40-300	1-4000 8-2000 12-1400 12-1000 40-300	20000	SEE NOTE (A)	B-29, A & B TECH. ORDER 01-20EJA-1 (REV. 11 JULY 1945)						
B-29B (LATEST MODEL)	AS ABOVE	AS ABOVE	AS ABOVE	B 72700 C 137000 W 152000* M 120000	10	AS ABOVE	2-50	300	TAIL POWER MT.	AS ABOVE	AS ABOVE	(a) WAR EMERGENCY RATING WITH 50.5" H.G. AND 28000 RPM. (b) OUTBOARD TREAD 31" 4"; INBOARD TREAD 25" 5" (c) SEE PAGE OPPOSITE FOR ARMAMENT BREAKDOWN. AN/APG-15B USED WITH TAIL POWER MOUNT ON B-29B TO GIVE RADAR GUN SIGHTING FOR USE AGAINST NIGHT FIGHTERS.						

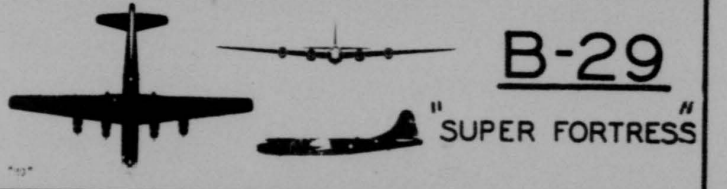
MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT						RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND- NO ALLOWANCE FOR RESERVE										REMARKS				
	TO CLEAR 50'		GROUND RUN		WEIGHT	STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		LOADING			BOMBING ALTITUDE						FERRY			
	T.O. DIST.	LAND DIST.	T.O. DIST.	LAND DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS CARRIED	TOTAL FUEL	at 5000 FT.		at 15000 FT.			at 25000 FT.		at 30000 FT.	
B-29 & A	80000	-	-	-	30000	355	350	353	300	351	150	72.0	141000	NONE	9548	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	5500	25.2
B-29B	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	110000	352	354	354	45	354	AS	15	137500	NONE	9548	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	NO BOMBS	5725	25.4

NOTES: (A) PROVISIONS ONLY

MODEL	ENGINE	PROP.	TYPE
B-29 & A	R-3350-23	-234	-41
B-29B	R-3350-23	-234	-41

REMARKS: BASIC DATA FOR THE RANGE AND ENDURANCE FIGURES IS FROM T.O. 01-20EJA-1 WHICH WILL BE PUBLISHED SEPTEMBER 1945.

MANUFACTURED BY BELL (ATLANTA) *T.O. 01-20EJA-1 (REV. 11 JULY 1945)



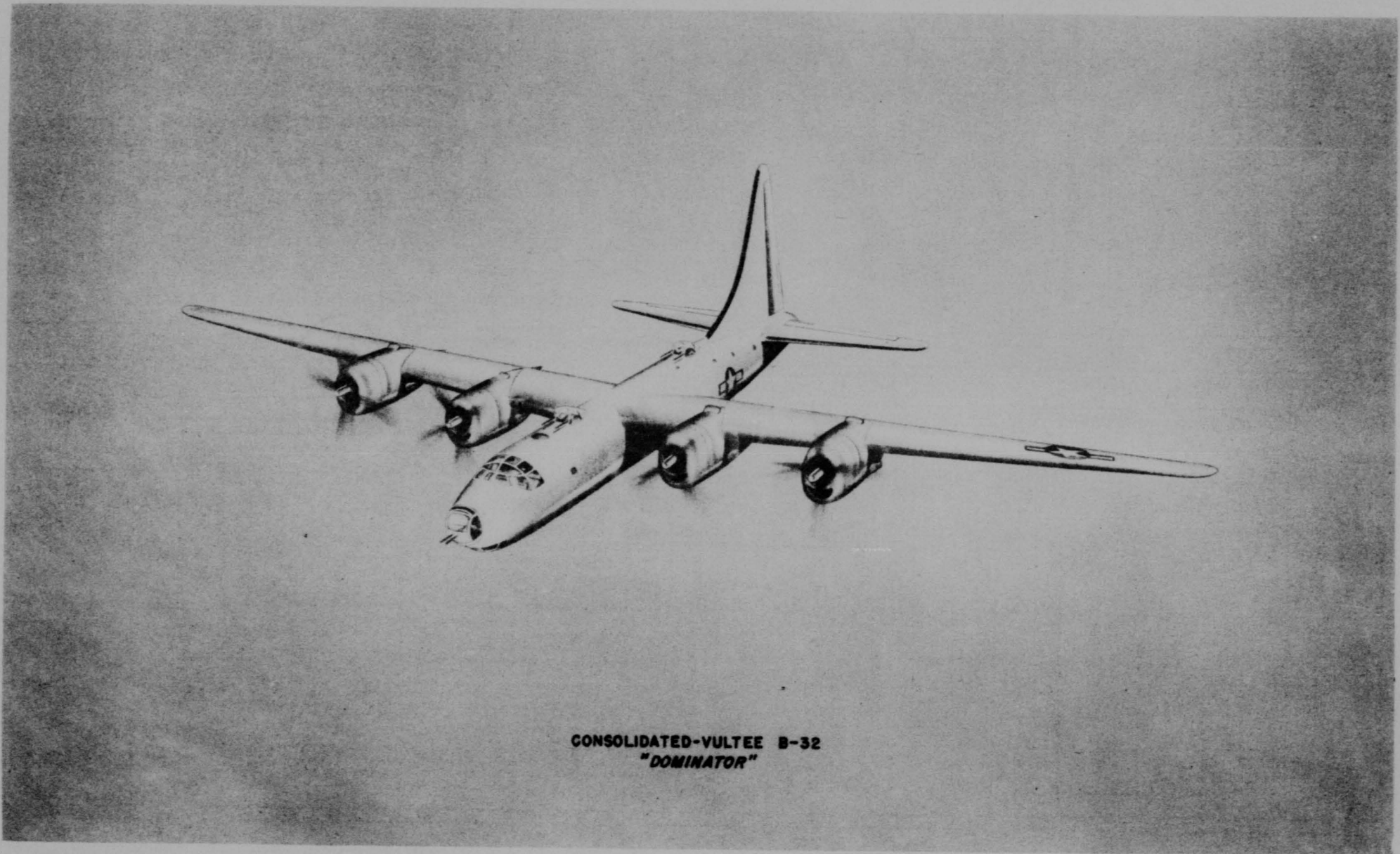
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PAGE 14
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28 JULY 1945



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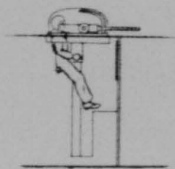
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PAGE 16
AS OF:
25 JAN. 1945

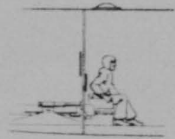
B-25 MITCHELL BOMBER



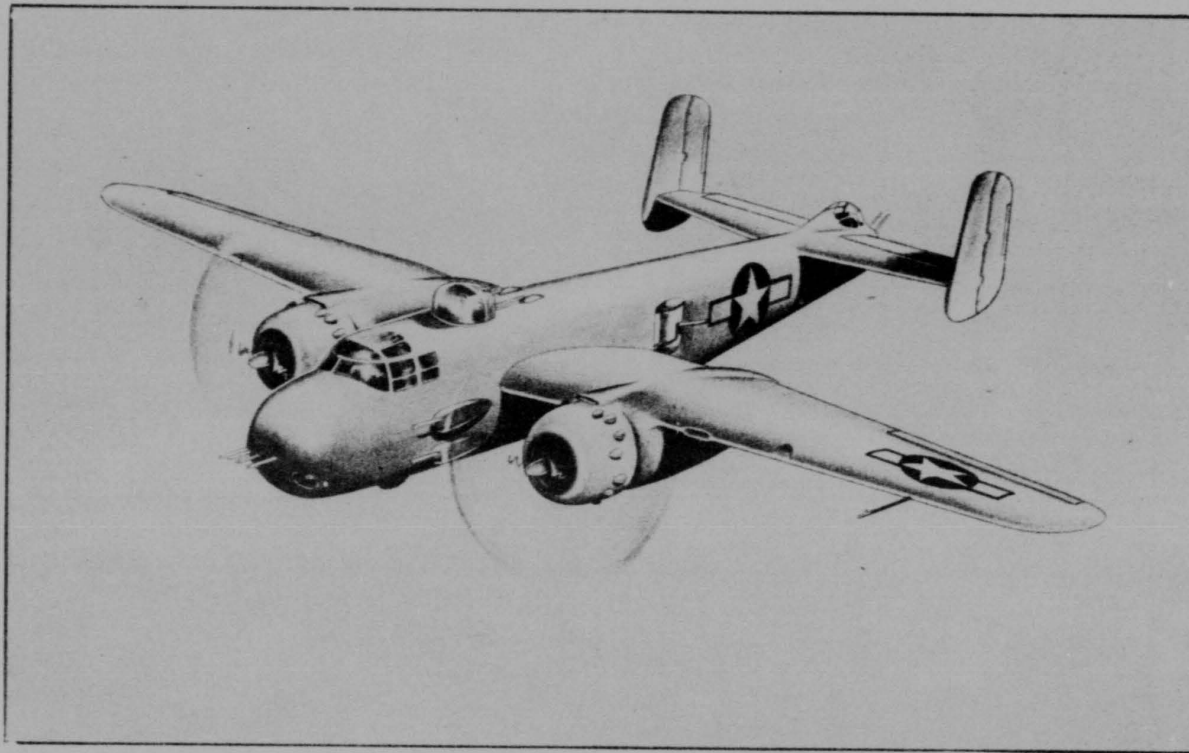
TAIL GUNNER
B-25H&J



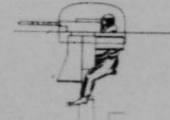
UPPER TURRET (REAR)
B-25C, D, & G



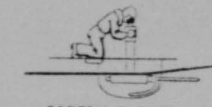
CANNONEER
B-25G&H



B-25H



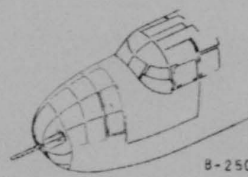
UPPER TURRET (FRONT)
B-25H&J



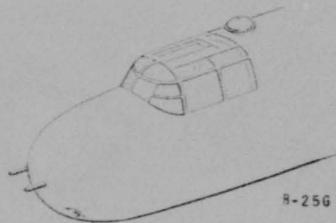
BOTTOM TURRET
B-25C, D, & G



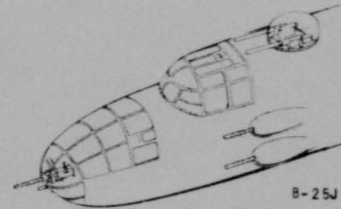
WAIST GUNNER
B-25H&J



B-25C&D



B-25G



B-25J

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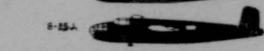
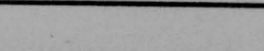
TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX.LAND.	NOTES		TYPE OR LOCATION ALSO (MAX OIL)	NO AND CAPACITY ALSO (MAX FUEL)	NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	NO. AND SIZE				MAX. LOAD
													INTERNAL	EXTERNAL			
B-25C-NA -1 thru -25	2	R-2600-13 or -29 2 SPD. SUPERCH. HAMILTON STD. 12" 7" DIA.-3 BL. F.F., HYDROMATIC	T W M C	S 67' 6" L 52' 11" H 15' 9" W 610 Sq. ft.	B 22000 C 33500 W 35000* M 32200	5	MAIN - WINGS 2 x 184 AUX. - WINGS 6 - 304 SIDE WAIST 1 x 125 BOMB BAY 1 x 585 (75)	2 1 2 1	300 300 400 350	NOSE - FLEX. NOSE - FIXED UPPER TURRET LOWER TURRET (SOME MODELS)	1-2000 2-1500	1-2000 6-325 8-250 8-100	2-1600 5-250*	SCR-211 SCR-269G SCR-274H SCR-287A SCR-522 SCR-535 SCR-578 SCR-595 SCR-695 AN/ARN-7 RC-32 RC-36 RC-43B RC-103 RC-196 RC-198	REFER TO PAGE 4 FOR "FOREWORD." REFER TO PAGE 3 FOR SECURITY CLASSIFICATION. REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.		
B-25D-NC -1 thru -35																B-25G-NA -1 thru -10	B-25H-NA -1 thru -10

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND- NO ALLOWANCE FOR RESERVE										REMARKS			
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND RUN LANDING SPEED T.O. DIST. FT. LAND DIST. FT.	WEIGHT LB.	STD. ALT. FT.	WAR EMERG.		MIL. POWER		MAX. CONT. POWER		LOADING		MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE							
		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.	TAKE OFF WEIGHT LB.	BOMBS-CARRO- -PASS- U.S. GAL.	at 10000 FT.	at 20000 FT.	at 10000 FT.	at 20000 FT.	at 10000 FT.	at 20000 FT.					
B-25C-NA -1 thru -25	24000 27000 30000	3300 2900 4000	105 110 112	1500 1700 1900	33500	20000 15000 10000 5000	NOT AVAILABLE	265 284 282 284	260 510 276 1225	260 280 830 1150	260 550 830 1150	34000 34000 33200 32200 35000*	NONE NONE 3200 2000 T 5200	1684 1559 974 750 974	1375 1275 775 750 725	5.2 4.7 2.9 3.0 2.9	1450 ² 1300 ² 800 ABOVE PRAC- TICAL CEILING	5.7 ² 5.2 ² 3.3 1250 1100	2350 2200 1350 1250 1100	10.3 9.4 5.7 5.5 5.0	2175 ² 1950 ² 1175 ABOVE PRAC- TICAL CEILING	10.0 ² 9.0 ² 5.3 5.3 5.0	2650 2500 1525 1350 1225	12.6 11.8 7.3 7.1 6.1	(h) SPEED LESS THAN FOR MAX. CONTINUOUS POWER DUE TO HIGH TIP SPEED LOSS. (i) FIRST PART OF FLIGHT AT 15000 FT. * LIMIT DISPOSABLE ITEMS 50 AS NOT TO EXCEED A LOADING OF 35000 LB. GROSS WEIGHT.	
B-25G-NA -1 thru -10		A S A B O Y E			33500	20000 15000 10000 5000	AS ABOVE	251 279 285 288	610 880 1225 1375	277 830 1150 1200	550 830 9.5 4.3 0.0	34000 34000 33700 33900 35000	NONE NONE 2000 2000 T 5200	1649 1524 1189 1189 974	1275 1175 900 875 2.8	4.8 4.4 3.4 3.5 2.8	ABOVE PRACTICAL CEILING	1725 1175 1175 1025 850	8.5 7.8 5.9 5.1 4.9	ABOVE PRACTICAL CEILING	2200 2000 1525 1350 850	12.6 11.4 8.6 8.1 4.9				
B-25H-NA -1 thru -10		A S A B O Y E			33500	20000 15000 10000 9000	AS ABOVE	248 ^h 270 ^h 266 272	285 600 750 1125	260 275 293 284	230 940 11.1 1050 1110	35000* 35000* 35000 35000 34600	NONE NONE 2000 2000 T 3200	1624 1524 1189 1189 974	1275 1175 900 875 725	4.8 4.4 3.3 3.5 2.8	1150 1050 755 1525 1400	4.7 4.4 3.3 5.5 6.4	2200 1900 1525 1200 1400	9.2 8.5 6.5 5.2 5.2	1875 ² 1700 ² 1200 ² 900 ²	8.3 ² 7.6 ² 5.4 ² 4.5 ²	2450 2275 1700 1575 1300	12.0 10.8 8.1 8.0 6.2	B-25J HIGH SPEED LOSSES AT MILITARY POWER WHEN CARRYING (8) 5" HYAR ON ZERO RAIS ARE AS FOLLOWS: 7 mph. at 4000 ft. 14 mph. at 10000 ft.	
B-25J-NC -1 thru -35		A S A B O Y E										34000 34000 33800 34000 33100	NONE NONE 2000 2000 T 3200	1624 1524 1189 1189 974												

NOTES: (A) SCR-211 FREQUENCY METER
SCR-269G RADIO COMPASS
SCR-274H COMMAND SET
SCR-287A LIAISON SET
SCR-522 COMMAND SET
SCR-535 SET
SCR-578 EMERGENCY TRANSMITTER
SCR-595 SET
AN/ARN-7 RADIO COMPASS
RC-32 FILTER EQUIPMENT
RC-36 INTERPHONE AMPLIFIER
RC-43B MARKER BEACON
RC-103 LOCALIZER
RC-196 CONTACTOR UNIT
RC-198 FILTER EQUIPMENT
RC-193 MARKER BEACON
AN/AIC-2 INTERPHONE
AN/ARM-1 LOW ALT. ALTIMETER
AN/ARM-6 GLIDE PATH
AN/ASA-3 STATIC DISCHARGE

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

B-25 "MITCHELL"

MANUFACTURED BY NORTH AMERICAN (INGLEWOOD) "NA" & (KANSAS CITY) "NC"

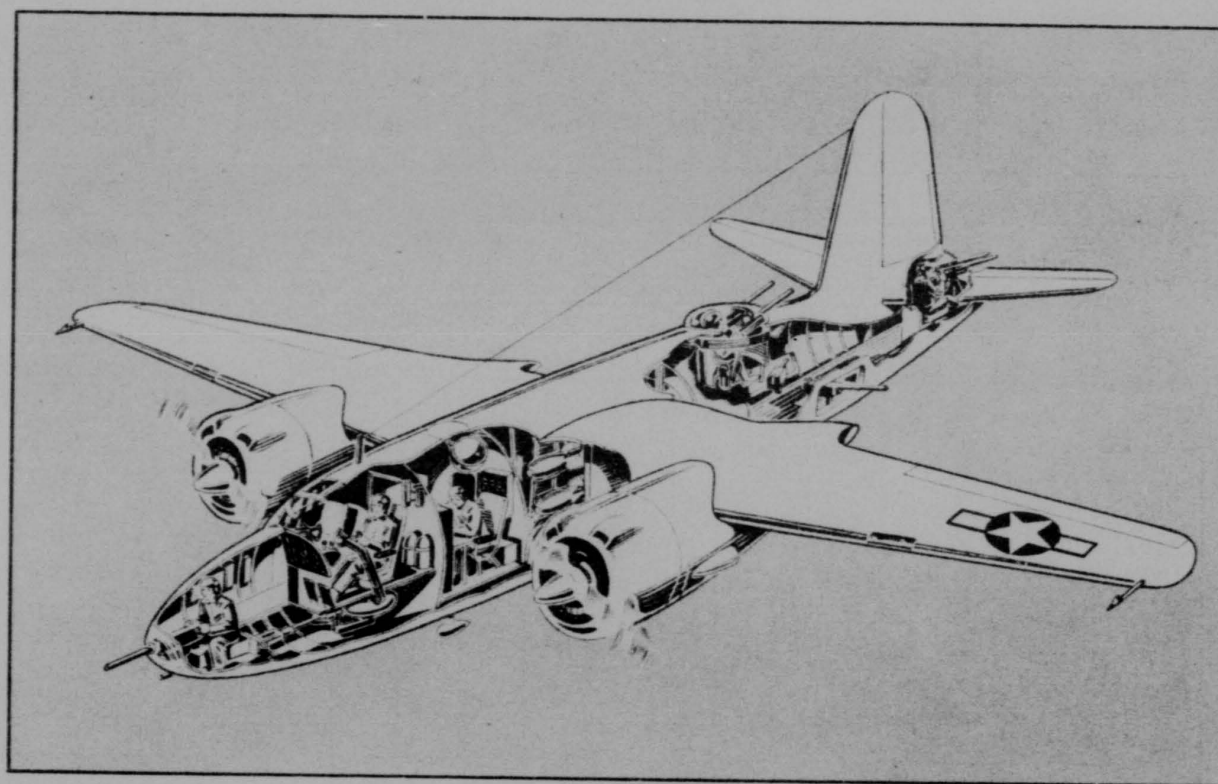
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PAGE 18
AS OF:
25 JAN. 1945

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B-26 "MARAUDER"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART


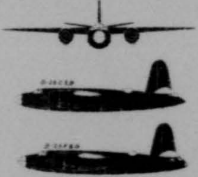
PAGE 19
AS OF 29 JUNE 1945

MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS			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. M-MAX. LAND.		M NOTES	FUEL TANKAGE		NO. GUNS AND SIZE			NO. AND SIZE				TYPICAL MODELS CARRIED (SEE A-1)
			T-TAKE OFF W-WAR EMERG M-MILITARY C-CONTINUOUS	W-WAR EMERG M-MILITARY C-CONTINUOUS					TYPE OR LOCATION ALSO (MAX. OIL)	NO. AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL	MAX. LOAD		
B-26B-MA -10 thru -20	2	PRATT-WHITNEY R-2600-43 2 SPD. SUPERCHARGER CURTISS 12' 6" DIA. - 4 BL. P.F., ELECTRIC	1920/ 5 L NONE	1920/ 3200 1490/ 14300 1550/ 7100 1360/ 14600	S 71' 0" L 58' 3" H 21' 6" T 22' 0" W 658 Sq. ft.	B 25300 C 37000 W 38200* M 34000	FLIGHT CHARACTERISTICS CRITICAL ABOVE 38200 LB.	MAIN - WINGS AUX. - WINGS BOMB BAY (FORG & REAR) (83)	2 x 360 2 x 121 4 x 250	1) 200 2) 270 2) 240 2) 250 2) 200 2) 400 2) 200	NOSE - FIXED NOSE - FLEX. SIDE MAIST - FLEX. U. FUSEL. - PACKAGE L. FUSEL. - PACKAGE UPPER TURRET *TAIL-POWER MOUNT	2-2000 2-1600 4-1000 8- 500 16- 250 30- 100	1-2000T TORPEDO	2-1600 1-2000T 5200	SCR-211 SCR-269G SCR-274 SCR-287A SCR-522 SCR-535 SCR-578 SCR-595 SCR-695 RC-36 RC-439 RC-103 RC-198 RC-32	<p>REFER TO PAGE 4 FOR "FOREWORD" REFER TO PAGE 3 FOR SECURITY CLASSIFICATION. REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.</p> <p>B-26B & C TECH. ORDER 01-35EB-1. (REV. 30 APRIL 1945) B-26F & G TECH. ORDER 01-35EC-1. (REV. 15 OCT. 1944)</p> <p>(a) EARLY MODELS HAVE FLEXIBLE TAIL MOUNT WITH 1500 ROUNDS PER GUN INSTEAD OF POWER MOUNT. (b) EARLY MODELS HAVE SAME NUMBER OF BOMB STATIONS AS LISTED ABOVE; DECREASE IN BOMB STATIONS AS NOTED DUE TO DELETION OF 2 REAR BOMB BAYS. (c) FUEL CAPACITY 20 GAL. PER TANK GREATER DUE TO INCREASE OF 3 1/2° ANGLE INCIDENCE OF WING.</p>		
B-26C-MO -5 thru -25	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	MAIN - WINGS AUX. - WINGS BOMB BAY (FORG ONLY) (83)	2 x 360 2 x 121 2 x 250	1) 200 2) 270 2) 240 2) 250 2) 200 2) 400 2) 200	AS ABOVE EXCEPT FIXED NOSE GUN DELETED ON LATEST MODELS	2-2000 2-1600 4-1000 6- 500 10- 250 20- 100	AS ABOVE	4000					
B-26B-MA -25 thru -55	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	MAIN - WINGS AUX. - WINGS BOMB BAY (FORG ONLY) (83)	2 x 360 2 x 121 2 x 250	1) 200 2) 270 2) 240 2) 250 2) 200 2) 400 2) 200	NOSE - FLEX. SIDE MAIST - FLEX. U. FUSEL. - PACKAGE L. FUSEL. - PACKAGE UPPER TURRET TAIL-POWER MOUNT	2-2000 2-1600 4-1000 6- 500 10- 250 20- 100	NONE	4000					
B-26F-MA -1, -2 & -5	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	MAIN - WINGS AUX. - WINGS BOMB BAY (FORG ONLY) (83)	2 x 360 2 x 121 2 x 250	1) 200 2) 270 2) 240 2) 250 2) 200 2) 400 2) 200	NOSE - FLEX. SIDE MAIST - FLEX. U. FUSEL. - PACKAGE L. FUSEL. - PACKAGE UPPER TURRET TAIL-POWER MOUNT	2-2000 2-1600 4-1000 6- 500 10- 250 20- 100	NONE	4000					

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND					HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT							RANGE AND 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			LOADING			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.	TAKE OFF WEIGHT LB.	BOMBS PARS.	TOTAL FUEL U.S. GAL.	at 10000FT. RANGE MILES	at 10000FT. ENDUR. HOURS	at 20000FT. RANGE MILES	at 20000FT. ENDUR. HOURS		at 10000FT. RANGE MILES	at 10000FT. ENDUR. HOURS
B-26B-MA -10 thru -20	28000	-	3400	135	-	1900	20000	-	-	-	-	-	38200*	NONE	1962	1425	5.2	1600	7.8	2375	10.6	2050	9.1	2600	13.3
B-26C-MO -5 thru -25	32000	3000	3900	136	1900	2000	15000	282	500	278	490	23.0	37800	NONE	1462	1900	3.8	1075	4.9	1725	7.8	1425	6.5	1825	9.2
B-26B-MA -25 thru -55	34000	3500	4200	138	2300	2200	10000	278	800	265	600	13.0	38200*	1500	1462	1000	3.8	1075	4.9	1700	7.8	1400	6.5	1800	9.2
B-26C-MO -30 & -45	36000	4000	-	-	2700	-	5000	285	1000	269	900	6.0	36300	2000	962	700	2.5	675	3.0	1100	4.9	800	4.0	1200	6.2
B-26F-MA -1, -2 & -5	38200	4400	-	-	3000	-	37000	270	1200	254	875	0.0	36100	4000	962	650	2.5	675	3.1	1050	4.9	800	4.1	1075	5.4

NOTES: (A) SCR-211 FREQUENCY METER
SCR-269G RADIO COMPASS
SCR-274 COMMAND SET
SCR-287A LIAISON SET
SCR-522 COMMAND SET
SCR-535 SET (IFR)
SCR-578 FREQUENCY METER SET (IFR)
SCR-595 SET (IFR)
SCR-695 SET (IFR)
RC-32 FILTER EQUIPMENT
RC-36 INTERPHONE AMPLIFIER
RC-439 WARNER BEACON
RC-103 LOCALIZER
RC-198 FILTER EQUIPMENT

RED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

B-26

"MARAUDER"

MANUFACTURED BY MARTIN (BALTIMORE) "MAY" & (OHIO) "MO"

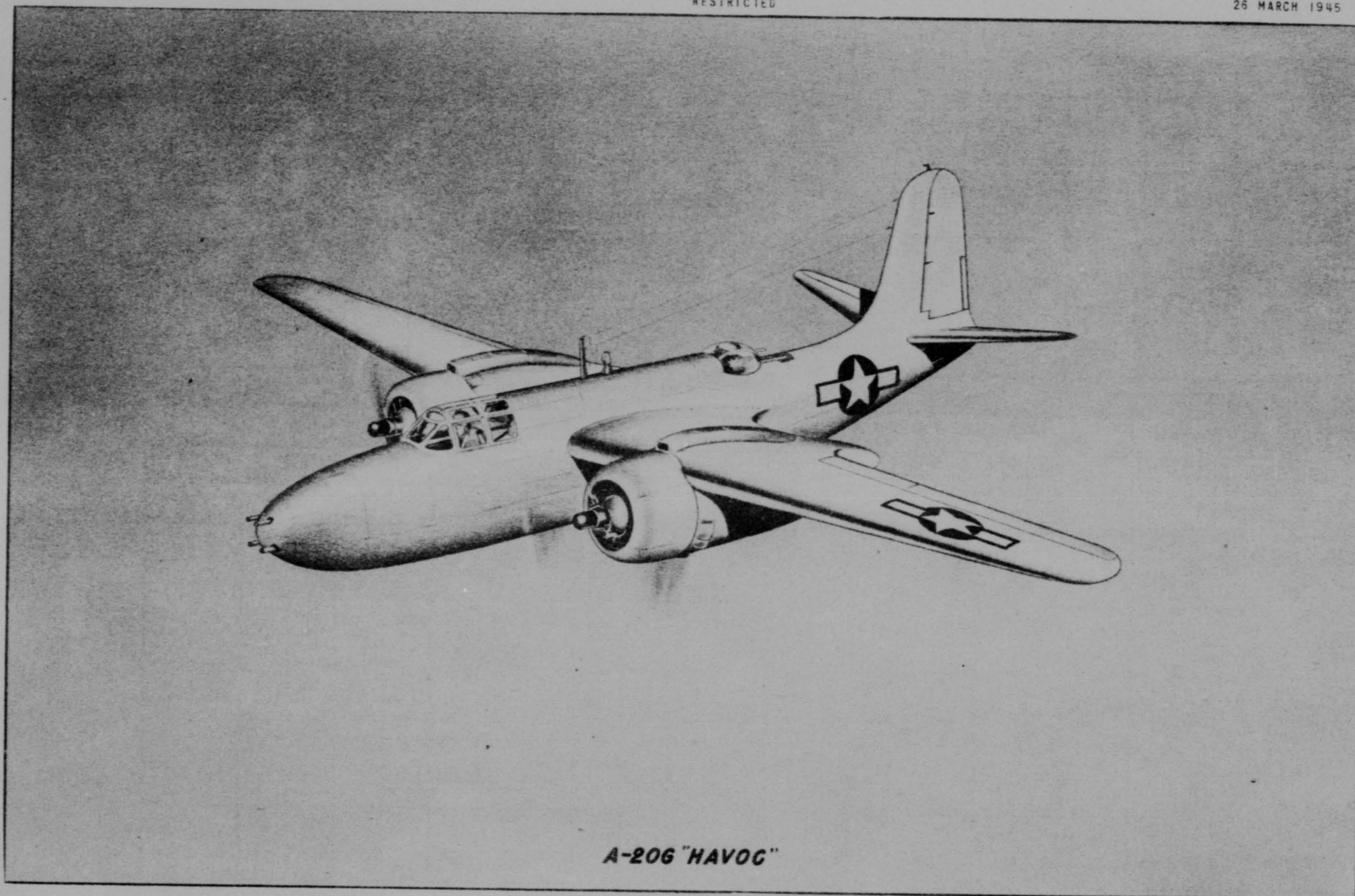
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PAGE 20
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25 MARCH 1945



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

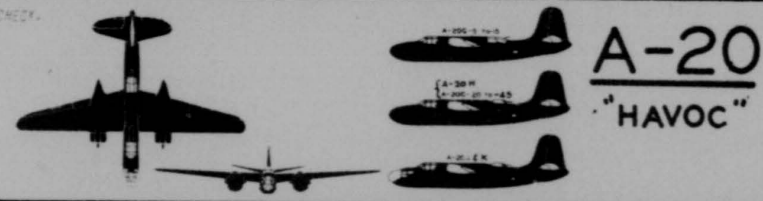
21
28 JULY 1945

MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE	WEIGHT	COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS			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 M-MAX.LAND.	FUEL TANKAGE		(NO. ROCKETS-SIZE-INSTALLATION)					NO. AND SIZE
			T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	TYPE OR LOCATION 4L50 (MAX. OIL)		NO AND CAPACITY 4L50 (MAX. FUEL)			NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL	MAX. LOAD		
A-20G-D0 -5 thru -15	2	WRIGHT R-2600-23 2 SPD. SUPERCH. HAMILTON STD. 11"3" DIA.-3 BL. F.F., HYDROMATIC	T-1900/5 L 1675/5 L 1600/1000 1350/5000 1275/11500	S 61' 4" L 48' 0" H 17' 7" T 17' 0" W 465 Sq. Ft.	B 17200 C 24000 W 30000* M 24000	3	INRD. - WINGS 2 x 136 OUTRD. - WINGS 2 x 64 FUS. (BOMB B.) 2 x 70 DROP. - WINGS 4 - 580 (46)	2 x 136 2 x 64 2 x 70 4 - 580 (1080)	1 1 1 1 6	.50 500 350	TUNNEL - FLEX. REAR COCKPIT NOSE - FIXED	4-500 4-250 4-100	1-2000T (PARTIALLY EXTERNAL)	2000	SCR-274 SCR-522 SCR-535 SCR-595 SCR-595 MK-26 RC-32 RC-36 RC-198	REFER TO PAGE 4 FOR "FOREWORD." REFER TO PAGE 3 FOR SECURITY CLASSIFICATION. REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING. A-20G & J TECH. ORDER 01-40-1 (REV. 5 MAR. 1945) A-20H & K TECH. ORDER 01-40AP-1 (REV. 30 OCT. 1945) (A) NO TORPEDO PROVISIONS ON -40 & -45 MODELS. T TORPEDO (REPLACES INTERNAL BOMBS WHEN CARRIED) * EXTERNAL * 12(15") AR OR HYAR INSTALLED ON SOME MODELS IN SERVICE.
A-20G-D0 -20 thru -45	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	3	INRD. - WINGS 2 x 136 OUTRD. - WINGS 2 x 64 FUS. (BOMB B.) 3 - 325 DROP. - WINGS 1 x 374 (46)	2 x 136 2 x 64 3 - 325 1 x 374 (1095)	1 1 2 1 6	.50 400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	4-500 4-250 4-100	4-500 4-250 4-100 * 1-2000T	4-500 4-500*		
A-20J-D0 -1 thru -20	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	4	AS ABOVE	AS ABOVE	1 2	.50 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	AS ABOVE EXCEPT NO TORPEDO PROVISIONS ON -15 & -20 MODELS.				
A-20H-D0 -1 thru -15	2	WRIGHT R-2600-29 2 SPD. SUPERCH. HAMILTON STD. 11"3" DIA.-3 BL. F.F., HYDROMATIC	T-1700/5 L 1850/5 L 1700/5200 1450/13400 1500/6400 1350/59800	S 61' 4" L 48' 0" H 18' 1" T 17' 0" W 465 Sq. Ft.	B 17800 C 25000 W 30000* M 24000	3	AS ABOVE	AS ABOVE	1 2 6	.50 400 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	4-500 4-250 4-100	4-500 4-250 4-100	4-500 4-500*		
A-20K-D0 -1 thru -15	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	4	AS ABOVE	AS ABOVE	1 2	.50 400 350	TUNNEL - FLEX. UPPER TURRET NOSE - FIXED	AS ABOVE	AS ABOVE			

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT				RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND- NO ALLOWANCE FOR RESERVE												REMARKS								
	GROSS WEIGHT LB	TO CLEAR 50'		GROUND RUN		STD. ALT. FT	WAR EMERG. HIGH SPEED MPH	MIL. POWER RATE OF CLIMB FT. MIN	MAX. CONTIN. POWER HIGH SPEED MPH	TIME TO CLIMB MIN	LOADING		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	TAKE OFF WEIGHT LB	BOMBS TOTAL LB	U.S. GAL.	at 10000 FT.		at 20000 FT.		at 10000 FT.			at 20000 FT.		RANGE MILES	ENDUR. HOURS				
A-20G-D0 -5 thru -15	19000 21000 24000 26000 27000	- 3300 4600 5500 7000	95 100 105 - -	2100 2300 2600 -	20000 15000 10000 5000 S L	20000 15000 10000 5000 S L	NO DATA	305 317 315 305 300	420 875 1180 1500 1500	302 313 305 297 283	350 750 1000 1300 1300	18.5 12.8 7.1 3.2 0.0	25300 24000 24000 24000	NONE 2000 2000T 4000	1080 540 540	925 425 350	3.1 1.5 1.4	1050 475 425	3.5 1.8 1.7	1450 625 575	5.7 2.5 2.3	1575 875 625	6.7 2.9 2.8	2025 875 776	10.5 4.2 4.0	(B) FLIGHTS ABOVE 10000 FT. REQUIRE SPECIAL OXYGEN PROVISIONS.			
A-20G-D0 -20 thru -45	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	20000 15000 10000 5000 S L	20000 15000 10000 5000 S L	NO DATA	291 311 312 305 302	240 820 1000 1300 1300	280 299 295 290 276	350 750 1000 1100 1100	18.5 15.5 8.8 3.5 0.0	26200 26000 26000 26000	NONE 2000 2000T 4000	1099 725 725 400	725 600 475 375	2.5 2.0 1.8 1.1	1000 625 575 250	3.6 2.4 2.5 1.3	1625 1025 950 475	6.7 4.3 4.3 2.2	1450 900 775 325	6.1 4.0 3.8 1.8	1925 1175 1050 550	9.4 5.7 5.5 2.7				
A-20J-D0 -1 thru -20	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	
A-20H-D0 -1 thru -15	19000 21000 24000 26000 27000	- 3300 4600 5500 7000	94 100 108 - -	2100 2300 2600 -	20000 15000 10000 5000 S L	20000 15000 10000 5000 S L	NO DATA	315 322 329 305 300	375 1190 1250 1700 1700	307 317 302 299 285	350 750 1000 1100 1300	18.0 11.6 6.6 2.5 0.0	26400 26000 26100	NONE 2000 4000	1099 725 400	775 525 325	2.7 1.4 1.0	1025 575 250	3.6 2.1 1.0	1625 975 450	6.4 3.4 1.7	1650 925 375	6.3 3.6 1.6	1975 1225 525	8.7 5.2 2.3				
A-20K-D0 -1 thru -15	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	

NOTES:
FIVE OF MORE OF FOLLOWING:
(A) SCR-274 COMMAND SET
SCR-522 COMMAND SET
SCR-585 IFF
SCR-595 IFF
SCR-595 IFF
MK-26 RADIO COMPASS
RC-32 FILTER EQUIPMENT
RC-36 INTERPHONE AMP.
RC-198 FILTER EQUIPMENT

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



A-20
"HAVOC"

MANUFACTURED BY DOUGLAS (SANTA MONICA) "DO"

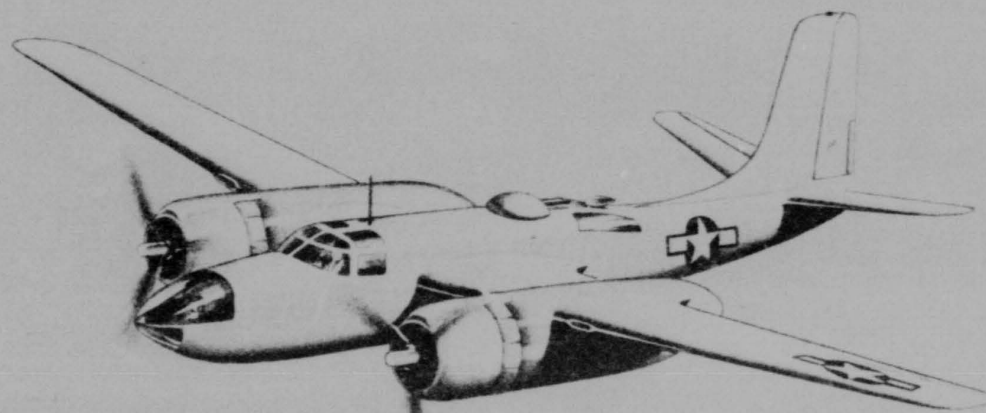
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PAGE 22
AS OF:
28 JULY 1945



A-26C

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX.LAND.	* NOTES		FUEL TANKAGE		(NO. ROCKETS-SIZE-INSTALLATION)			NO. AND SIZE			TYPICAL MODELS CARRIED (SEE 4)		
								TYPE OR LOCATION ALSO (MAX. OIL)	NO. AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL	MAX. LOAD			
A-26B-DL -1 & -5	2	PRATT-WHITNEY R-2800-27 SINGLE STD.-2 SPEED HAMILTON STD. 12"7" DIA.-3 BL. F.F., HYDROMATIC	T-2000/5 L W-2340/5 L M-1800/1500 C-1450/14000	S 70' L 50' H 18' 6" T 19' 6" W 540 Sq. Ft.	B 23275 C 35000 W 42300* M 31000	2	MAIN - WINGS 2 x 300 AUX. - WINGS 2 x 100 BOMB BAY(S.S.) 1 x 125 B.BAY (HERRY) 1 x 575 (68)	2	400 500 500 300	NOSE UPPER TURRET LOWER TURRET	4-1000 6-500 4-250 15-100	2-2000 T 4-500 4-250 4-100	4-1000 4-500 4-250 4-100	SCR-269 SCR-274 SCR-522 SCR-595 SCR-695 MW-26 RC-32 RC-36 RC-193 RC-199 M/AIC-2 M/APN-4 M/APN-5 M/APN-3 M/APN-7 M/APN-8 M/APN-9 M/APN-2 M/A	A-26B & C TECH. ORDER 01-40AJ-1 (REV. 20 APRIL 1945) (a) THE REMOVABLE WING PACKAGE GUNS ARE AN ALTERNATE INSTALLATION AND MAY BE MOUNTED ON WING BOMB RACKS IN PLACE OF BOMBS. (b) R-2800-79 WATER INJECTION ENGINE INSTALLED ON A-26B-45-DL THRU -65 AND A-26C-45-DT AND SUBSEQUENT MODELS: WAR EMERGENCY AND MILITARY RATINGS SHOWN WITH WATER INJECTION: WATER CAPACITY 23 GAL. PER TANK. (c) TESTS ARE BEING CONDUCTED AT WEIGHTS IN EXCESS OF 35000 LB. AND LATEST A-26B-DL MODELS ONLY, HAVE LOWER TURRET REMOVED AND INSTEAD 1 x 125 GAL. TANK INSTALLED. (d) A-26C-55-DT & SUBSEQUENT MODELS HAVE 6-.50 CAL. INTERNAL WING GUNS INSTALLED IN LIEU OF 8 WING PACKAGE GUNS CARRIED ON -15 THRU -50 MODELS. (e) A-26B-65-DL & SUBSEQUENT MODELS HAVE 8-.50 CAL. NOSE GUNS (250 NOS. EA.) INSTALLED IN LIEU OF 6 NOSE GUNS NOW LISTED. (f) ROCKETS INSTALLED ON A-26C-45 & SUBSEQUENT MODELS.			
A-26B-DT -5																		
A-26B-DL -10 thru -45	2	PRATT-WHITNEY R-2800-27 or -71 SINGLE STD.-2 SPEED HAMILTON STD. 12"7" DIA.-3 BL. F.F., HYDROMATIC	T AS ABOVE W M C	S 70' L 50' 7" H 18' 6" T 19' 6" W 540 Sq. Ft.	B 23325 C 35000 W 42300* M 31000	2	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
A-26B-DT -10 thru -25																		
A-26B-DL -50 thru -70	2	PRATT-WHITNEY R-2800-27, -71, -79 b SINGLE STD.-2 SPEED HAMILTON STD. 12"7" DIA.-3 BL. F.F., HYDROMATIC	T AS ABOVE EXCEPT RATED AS SHOWN BELOW W M C	S 70' L 50' H 18' 6" T 19' 6" W 540 Sq. Ft.	B 23800 C 35000 W 42300* M 31000	2	AS ABOVE EXCEPT A-26C-30 & SUBSQ. HAVE 2 1/2 155 GAL. EXTERNAL WING TANKS ADDED GIVING TOTAL OF 1910 GAL.	2	400 500 500 300	NOSE UPPER TURRET LOWER TURRET WINGS	4(5") ZERO LENGTH RAIL ROCKETS	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
A-26D-5-DL (See e)																		
A-26C-DT -15 thru -60	2	PRATT-WHITNEY R-2800-79 b SINGLE STD.-2 SPEED HAMILTON STD. 12"7" DIA.-3 BL. F.F., HYDROMATIC	T AS ABOVE W M C	S 70' L 51' 3" H 18' 6" T 19' 6" W 540 Sq. Ft.	B 23750 C 35000 W 42300* M 31000	2	AS ABOVE EXCEPT A-26C-30 & SUBSQ. HAVE 2 1/2 155 GAL. EXTERNAL WING TANKS ADDED GIVING TOTAL OF 1910 GAL.	2	400 500 500 300	NOSE UPPER TURRET LOWER TURRET WINGS	4(5") ZERO LENGTH RAIL ROCKETS	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
A-26B CURRENT MODELS																		
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND 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		LOADING		MAX. CONTINUOUS POWER				MAX. CRUISE POWER					LONG RANGE			
	T.O. DIST.	LAND DIST.	T.O. DIST.	LAND DIST.			HIGH SPEED	RATE OF CLIMB	HIGH RATE	RATE OF CLIMB	HIGH RATE	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS CARGO	TOTAL FUEL	at 10000 FT.	at 20000 FT.	at 10000 FT.	at 20000 FT.	at 10000 FT.	at 20000 FT.		RANGE	ENDUR.		
A-26 SERIES	25000	-	3400	-	1900	20000	361	NO	335	350	330	300	22.5	37200	400E	2035	1450	4.8	1975	6.5	2700	9.7	2600	9.1	3450	16.1	(1) SPECIAL PROVISIONS FOR OXYGEN REQUIRED. (2) HIGH SPEED DECREASES APPROX. 10 M.P.H. & RATE OF CLIMB 150 FT. PER MINUTE WHEN 8 EXTERNAL PACKAGE GUNS ARE CARRIED.
	29000	4300	4000	195	2600	15000	361	NO	350	825	345	750	13.5	31400	400E	925	850	2.0	900	2.8	1250	4.3	1375	4.7	1625	7.6	
	32000	5500	-	-	3400	10000	373	DATA	352	1150	325	1050	8.0	34400	3000	925	850	2.0	850	2.8	1250	4.4	1300	4.9	1525	6.8	
	35000	7200	-	-	4400	5000	351	-	355	1550	325	1275	3.5	34000	3000	925	850	2.0	850	2.8	1250	4.4	1300	4.9	1525	6.8	
	38000	9100	-	-	5600	5 L	360	-	335	2025	305	1450	0.0	34000	4000	800	550	1.7	725	2.4	1050	3.7	1075	4.1	1275	5.7	

NOTES: FIVE OR MORE OF FOLLOWING:

- (A) SCR-269 RADIO COMPASS
- SCR-274 COMMAND SET
- SCR-522 COMMAND SET
- SCR-595 IFF
- SCR-695 IFF
- MW-26 RADIO COMPASS
- RC-32 FILTER EQUIPMENT
- RC-36 INTERPHONE AMP.
- RC-193 MARKER BEACON
- RC-199 FILTER EQUIPMENT
- M/AIC-2 INTERPHONE
- M/APN-4 or 9 LORAN
- M/APN-3 COMMAND (W/F)
- M/APN-7 RADIO COMPASS
- M/APN-8 LIAISON SET
- M/APN-9 STATIC DISCHARGE
- NOM RADIO COUNTER MEASURE
- GEE BRITISH LORAN
- M/APN-9 JAMMING TRANSMITTER

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



A-26
"INVADER"

MANUFACTURED BY DOUGLAS (LONG BEACH) "DL" & (TULSA) "DT"

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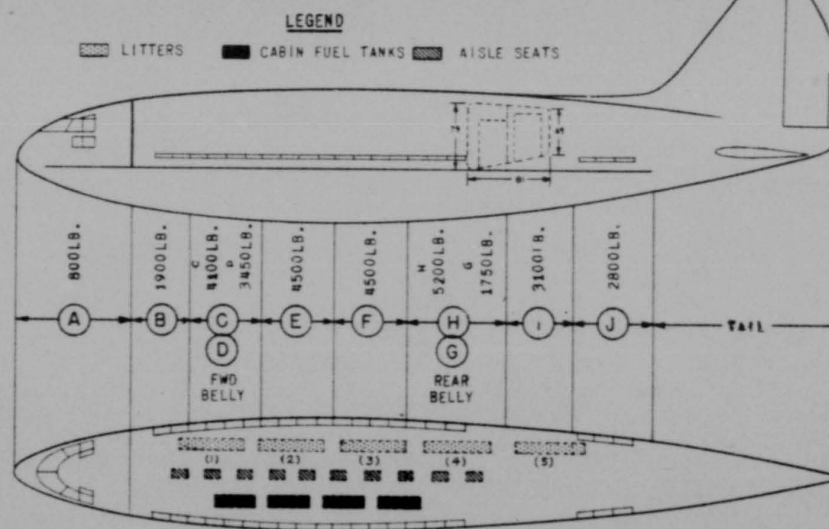
LOADING THE CURTISS "COMMANDO"

ITEM	WEIGHT	STATION
JEEP 	3100 LB.	(C) THRU (H)
105 MM GUN & CAISSON 	GUN 4300LB. CAISSON 4700LB.	(E) THRU (H)
LITTERS 	3 TIER LITTER 50LB. OXYGEN BOTTLE 138LB.	REAR - (B) THRU FORE - (J)
75 MM HOWITZER & CAISSON 	HOWITZER 2100LB. CAISSON 5000LB.	(C) THRU (H)
37 MM GUN & MOTOR CHASSIS 	5500LB.	(C) THRU (H)
75 MM GUN & CAISSON 	GUN 3400LB. CAISSON 5000LB.	(C) THRU (H)
LARGE ENGINE & MOUNT 	4900LB.	(C) THRU (I)

WEIGHT LEGEND

ATTENDANT OR PASSENGER — 200LB.
TROOP AND EQUIPMENT — 240LB.
LITTER (INCL. PATIENT) — 250LB.
PARACAN — 250LB.
PARATROOPER — 260LB.

LOADING STATIONS OF THE C-46



C-46 D ONLY, HAS DOUBLE PARATROOP DOOR

(1) - 8 LITTERS (EA. SIDE)
(2) - 4 LITTERS (EA. SIDE)
(3) - 4 LITTERS (EA. SIDE)
(4) - 4 LITTERS (EA. SIDE)
(5) - 8 LITTERS (R. SIDE ONLY)

ANY COMBINATION OF CARGO CAN BE CARRIED BUT MUST SATISFY FOUR REQUIREMENTS: (1) Total weight. (2) Space limitations. (3) Center of gravity. (4) Floor loading. (Typical items are illustrated).

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28 JULY 1945

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LOADING THE DOUGLAS "SKYTRAIN"



ITEM	WEIGHT	STATION
JEEP 	3100 LB.	(D) OR (E)
LITTERS 	4 TIER LITTER 50LB. OXYGEN BOTTLE 138LB.	(D) THRU (F)
75 MM HOWITZER & CAISSON 	HOWITZER 2100LB. CAISSON 5000LB.	(D) THRU (F)
37 MM GUN & MOTOR CHASSIS 	5500LB.	(D) AND (E)
75 MM GUN & CAISSON 	GUN 3400LB. CAISSON 5000LB.	(D) THRU (F)
LARGE ENGINE & MOUNT 	4900LB.	(D) AND (E)

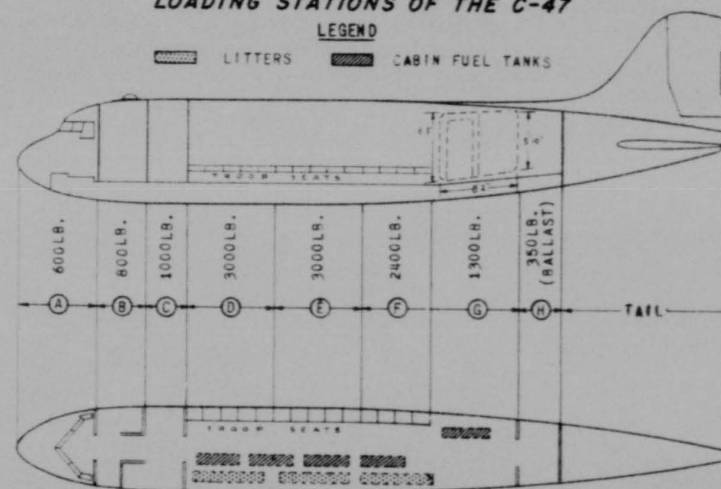
WEIGHT LEGEND

ATTENDANT OR PASSENGER— 200LB.
 TROOP AND EQUIPMENT— 240LB.
 LITTER (INCL. PATIENT)— 250LB.
 PARACAN— 250LB.
 PARATROOPER— 260LB.

LOADING STATIONS OF THE C-47

LEGEND

 LITTERS  CABIN FUEL TANKS



(3) 4 TIER LITTERS EA. SIDE
 RH-14) TROOPS
 LH-13)

ANY COMBINATION OF CARGO CAN BE CARRIED BUT MUST SATISFY FOUR REQUIREMENTS: (1) Total weight. (2) Space limitations. (3) Center of gravity. (4) Floor loading. (Typical items are illustrated).

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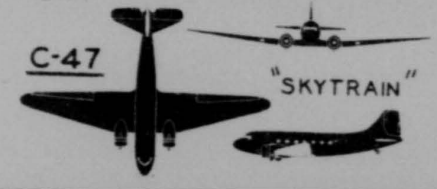
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE	WEIGHT	COMBAT CREW	FUEL & OIL		CARGO OR PASSENGERS			RADIO	REMARKS & REFERENCE						
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE				BHP/ALT.	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX LAND	FUEL TANKAGE				STATION	CAPACITY	MAX. LOAD	STATION	PLACES	MAX. LOAD
			T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	TYPE OR LOCATION ALSO (MAX. OIL)		NO. AND CAPACITY ALSO (MAX. FUEL)			SEE (A)									
C-47A thru -90 (DL) C-47A thru -30 (DK) C-53C & D (DL)	2	PRATT-WHITNEY R-1630-92 INTEGRAL SUPER. HAMILTON STD. 17" DIA. - 3 BL. F.F., HYDROMATIC	T 1200/ 5 L W NONE M 1200/ 5000 C 1050/ 7500	S 95' 6" L 63' 9" H 17' 0" T 18' 6" W 98' 5 1/2" Ft.	B 18200 C 29300 W 31500** M 29300	4	MAIN-WINGS 2 x 202 AUX-WINGS 2 x 200 FUEL (RE-MIXE) 49 x 100 (1704)	CAHIN-MAIN	10000	10000	TROOPS 27* LETTERS 24* ATTENDANTS 3	5500 6500	SCR-167, 211, 250, 274, 287, 522, 576, 505 & 595. RC-36, 43, 103, 193 & 198. AN/APM-1, 2 AN/ADM-5, 7 AN/ARR-1 AN/ASA-1, 3 AN/AM-9 RC-32 AN/AIA-1 SCA-717 SEE	C-47A & B TECH. ORDER U2-40NC-1. (REV. 22 JUNE 1945) (a) LATEST MODELS CARRY 9 TANKS; EARLIER MODELS - 8 TANKS. (c) C-53's CARRY 28 TROOPS & HAVE SMALL CARGO DOOR. (f) LATEST MODELS INSTALLED WITH 24 LITTERS; EARLIER MODELS - 18 LITTERS.				
C-47B-DK -1 thru -40 C-47B-DL -1	2	PRATT-WHITNEY R-1820-90C 2 STAGE - 2 SPOL. HAMILTON STD. 17" DIA. - 3 BL. F.F., HYDROMATIC	T 1200/ 5 L W NONE M 1200/ 5000 C 1050/ 12000	S L H T W W	B C W M H	4	A S A B O V E	A S	4	5	0	5	0	5	0	5	0	
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT						RANGE AND ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS								
	GROSS WEIGHT	TO CLEAR 50'		GROUND RUN	WEIGHT	STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		LOADING		MAX. CONTIN.		LONG RANGE		CRUISE										
		T.O. DIST.	LAND DIST.				LANDING SPEED	T.O. DIST.	LAND DIST.	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TAKE OFF WEIGHT	BOMBS CARGO PASS.	TOTAL FUEL	at 10,000 FT.	at 5,000 FT.		at 10,000 FT.	at 15,000 FT.	at 20,000 FT.					
C-47A thru -90 (DL) C-47A thru -30 (DK) C-53C & D (DL)	20000 24000 25000 29000 31000	2000 2400 2200 2700 3700	2000 2400 - - -	70 74 75 - -	1200 1500 1000 5000 5 L	20000 15000 10000 5000 5 L	-	NOT APPLICABLE AT THIS WEIGHT	-	-	200 400 200	41.0 24.0 15.5	29300 29300 29300 31000	NONE 500 1700 5000 5700	1504 1004 804 804 804	2075 1490 875 925	10.0 3.9 4.9 4.8	3500 2200 1500 1450	22.5 14.3 9.9 9.1	3425 2200 1525 1450	20.5 12.4 9.2 8.6	3525 2250 1625 1425	20.5 12.7 9.2 8.0	3380 2225 1325 1200	19.0 12.9 7.5 6.9	(b) RANGE AND ENDURANCE BASED ON REDUCED POWER SETTINGS DUE TO SPEED LIMITATIONS. (c) FIRST 3.5 HRS. OF FLIGHT INCLUDING CLIMB, ARE AT 15000 FT. ALT. (d) FLIGHT PARTLY AT REDUCED POWER SETTINGS. (e) FLIGHT PARTLY AT 15000 FT. AND REDUCED POWER SETTINGS. * COMBAT OF 29300 NOT SUITABLE WITH THESE POWER CONDITIONS.			
C-47B-DK -1 thru -35 C-47B-DL -1	20000 24000 25000 29000 31000	2400 2400 3000 4100 4800	2500 2700 3400 - -	70 74 76 - -	1500 1500 1000 5000 5 L	25000 20000 15000 10000 5000 5 L	NONE	NO DATA	225 300 775 1000 1175 1200	- 213 224 224 220 208	200 400 730 940 1080 1050	41.0 24.0 15.5 9.5 4.5 3.0	30000 29000 26000 29300 31000	NONE 1204 1700 5000 5700	1704 1004 804 804 804	1250 875 575 560 550	5.7 3.9 2.6 2.6 2.6	3250 2250 1475 1450 1425	23.8 14.5 9.4 9.4 9.2	3200 2200 1475 1375 1250	19.8 13.7 8.7 9.0 8.1	3025 2050 1400 1250 1075	17.8 12.1 8.0 7.6 6.6	2900 1900 1300 1050 (IMPRACTICAL)	17.5 11.0 7.4 6.7 (IMPRACTICAL)				
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	48

NOTES: (A) SCR-167 LIAISON SET; SCR-122 FREQUENCY METER; SCR-169 RADIO COMPASS; SCR-174 COMMAND SET; SCR-287 LIAISON SET; SCR-512 COMMAND SET; SCR-176 EMERGENCY TRANSMITTER; SCR-185 IFF; SCR-695 IFF; RC-36 INTERPHONE; RC-43 MARKER REACON; RC-73 FILTER EQUIPMENT; RC-209 LOCALIZER; RC-293 MARKER REACON; RC-296 FILTER EQUIPMENT; AN/APM-1 LOW ALTITUDE ALT-METER; AN/APM-2 "RECCO" REACON RECEIVER; AN/ASW-3 GROUND PATH; AN/APM-7 RADIO; AN/AMP-3 HOWLING ADAPTER; AN/ASA-13 AN/ASA-17; AN/ATA-1; AN/APM-9; GEE.

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



MANUFACTURED BY DOUGLAS (LONG BEACH) "DL" & (OKLAHOMA CITY) "DK"

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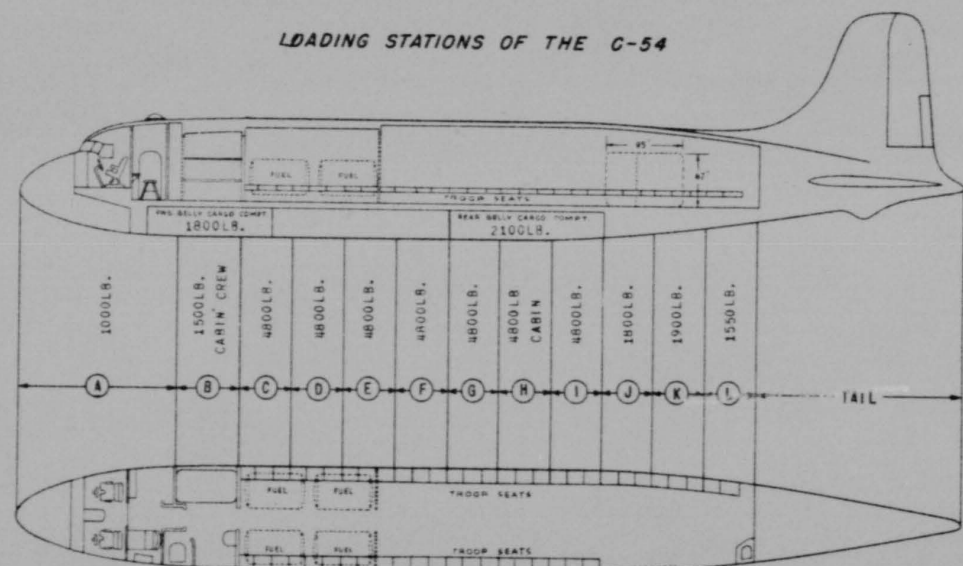
LOADING THE DOUGLAS "SKYMASTER"

ITEM	WEIGHT	STATION
JEEP 	3100 LB.	(C) THRU (L)
105 MM GUN & CAISSON 	GUN 4300 LB. CAISSON 4700 LB.	INTERNAL (C) THRU (L) EXTERNAL (E)
LITTERS 	3 TIER LITTER 50 LB. OXYGEN BOTTLE 138 LB.	(C) THRU (L)
37 MM GUN & MOTOR CHASSIS 	5500 LB.	(C) THRU (L)
75 MM GUN & CAISSON 	GUN 3400 LB. CAISSON 5000 LB.	INTERNAL (C) THRU (L) EXTERNAL (E)
LARGE ENGINE & MOUNT 	4900 LB.	(C) THRU (L)
LIGHT TANK 	15,500 LB.	EXTERNAL ONLY (E)

WEIGHT LEGEND

- ATTENDANT OR PASSENGER — 200 LB.
- TROOP AND EQUIPMENT — 240 LB.
- LITTER (INCL. PATIENT) — 250 LB.
- PARACAN — 250 LB.
- PARATROOPER — 260 LB.

LOADING STATIONS OF THE C-54



WITHOUT FUSELAGE TANKS—36 LITTERS (5 TIERS RH, 4 TIERS LH)
WITH FUSELAGE TANKS—28 LITTERS (4 TIERS RH, 3 TIERS LH)

ANY COMBINATION OF CARGO CAN BE CARRIED BUT MUST SATISFY FOUR REQUIREMENTS: (1) Total weight. (2) Space limitations. (3) Center of gravity. (4) Floor loading. (Typical items are illustrated).

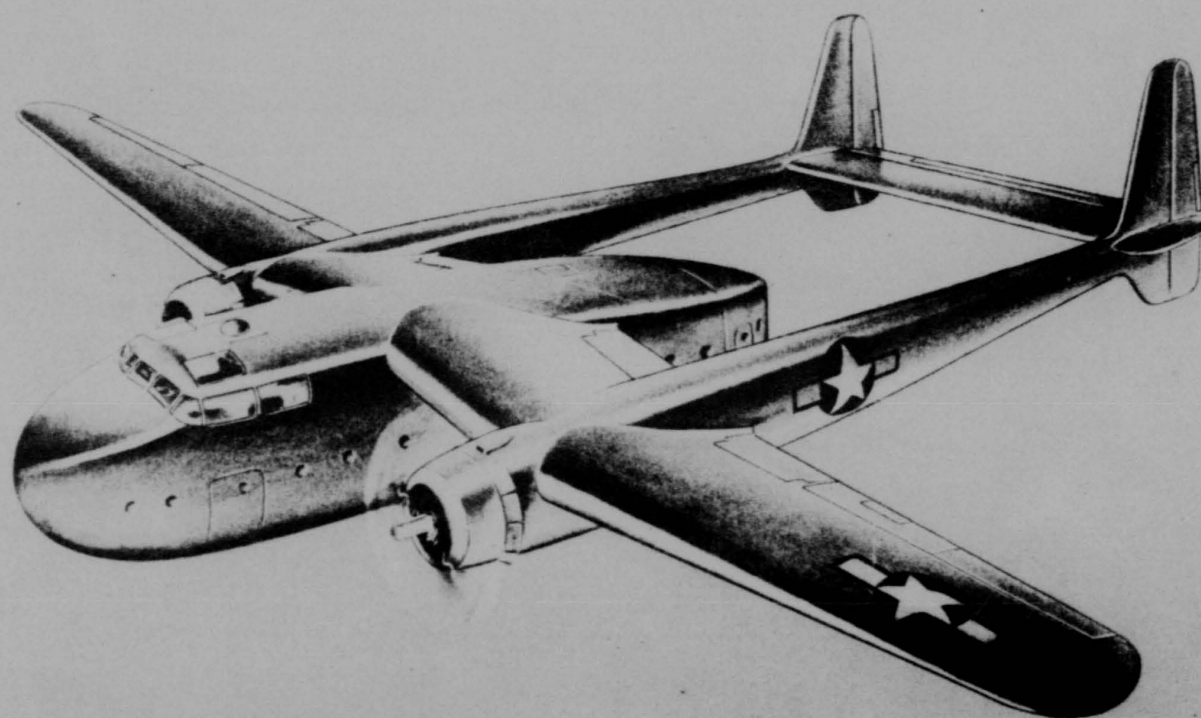
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PAGE 30
AS OF:
29 JUNE 1945



PACKET
FAIRCHILD C-82

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																			
MODEL & BLOCK NO.	ENGINE & PROP.			SIZE		WEIGHT		FUEL & OIL		CARGO OR PASSENGERS			RADIO		REMARKS & REFERENCE				
	SERIAL NUMBER	ENGINE MFR MODEL SUPERCHARGER PROP MFR TYPE	BHP/ALT T - TAKE OFF W - WAR EMERG M - MILITARY C - CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC G-COMBAT W-WAR MAX M-MAX LAND	NOTES	COMBAT CREW	FUEL TANKAGE		STATION	CAPACITY	MAX LOAD	STATION	PLACES	MAX LOAD	TYPICAL MODELS CARRIED (SEE 4)	REFER TO PAGE 4 FOR "FOREWORD" REFER TO PAGE 3 FOR SECURITY CLASSIFICATION REFER TO PAGE 5 FOR DEFINITIONS REFER TO T.O. LISTED FOR DETAILED PLANNING		
								TYPE OR LOCATION (MAX OIL)	NO AND CAPACITY (MAX FUEL)										
C-69-10 -1 thru -5 C-69C-10-1	4	WRIGHT R-2300-3C SINGLE SPEED HAMILTON STD. 15" DIA. 3 BL. F.T., HYDROMATIC	T 2200/3 L W 4042 M 2200/5000 G 2000/5000	S 127' 5" L 51' 2" H 27' 8" T 38' 5" W 185' 5 1/2"	B 50500 G 47000 W 50100* M 47000	3	90785 - WINGS 1895 - WINGS (200)	2 x 1500 2 x 820 (1420)	CASIN MAIN	21500	21000	PERSONNEL BAGGAGE	50* 3500*	14000	SCR-274 SCR-275 SCR-276 AN/AP-1 AN/AP-11 AN/AP-12 AN/AP-13 AN/AP-14 AN/AP-15 AN/AP-16 AN/AP-17 AN/AP-18 AN/AP-19 AN/AP-20 AN/AP-21 AN/AP-22 AN/AP-23 AN/AP-24 AN/AP-25 AN/AP-26 AN/AP-27 AN/AP-28 AN/AP-29 AN/AP-30 AN/AP-31 AN/AP-32 AN/AP-33 AN/AP-34 AN/AP-35 AN/AP-36 AN/AP-37 AN/AP-38 AN/AP-39 AN/AP-40 AN/AP-41 AN/AP-42 AN/AP-43 AN/AP-44 AN/AP-45 AN/AP-46 AN/AP-47 AN/AP-48 AN/AP-49 AN/AP-50 AN/AP-51 AN/AP-52 AN/AP-53 AN/AP-54 AN/AP-55 AN/AP-56 AN/AP-57 AN/AP-58 AN/AP-59 AN/AP-60 AN/AP-61 AN/AP-62 AN/AP-63 AN/AP-64 AN/AP-65 AN/AP-66 AN/AP-67 AN/AP-68 AN/AP-69 AN/AP-70 AN/AP-71 AN/AP-72 AN/AP-73 AN/AP-74 AN/AP-75 AN/AP-76 AN/AP-77 AN/AP-78 AN/AP-79 AN/AP-80 AN/AP-81 AN/AP-82 AN/AP-83 AN/AP-84 AN/AP-85 AN/AP-86 AN/AP-87 AN/AP-88 AN/AP-89 AN/AP-90 AN/AP-91 AN/AP-92 AN/AP-93 AN/AP-94 AN/AP-95 AN/AP-96 AN/AP-97 AN/AP-98 AN/AP-99 AN/AP-100	C-69 TECHNICAL ORDER 01-750J-1 (REV. 15 MAR. 1945) C-82 TECHNICAL ORDER 01-115CB-1 (10 JUNE 1945) C-87 TECHNICAL ORDER 01-5CA-1 (25 APRIL 1945) (A) C-69C-10 HAS ONLY 43 PLACES; OTHERS HAVE 60. (B) SOME MODELS HAVE 1-1/2" DIA. FLEX. TAIL SW. WITH 500 NOS. (C) AN/AP-111 FREQUENCY METER AN/AP-112 RADIO COMPASS AN/AP-113 COMMAND SET AN/AP-114 I.F. SW. SET AN/AP-115 COMMAND SET AN/AP-116 EMERGENCY TRANSMITTER AN/AP-117 IFF AN/AP-118 INTERPHONE AMPLIFIER AN/AP-119 MARKER BEACON AN/AP-120 TOTALIZER AN/AP-121 MARKER BEACON AN/AP-122 INTERPHONE AN/AP-123 LOW ALTITUDE ALTIMETER AN/AP-124 HERCULES BEACON (H.C.B.) AN/AP-125 LOGAN AN/AP-126 PANEL CONTROL SYSTEM AN/AP-127 I.F. SW. SET AN/AP-128 I.F. SW. SET AN/AP-129 RADIO COMPASS AN/AP-130 RADIO COMPASS AN/AP-131 STAFF LIGHT SWITCH			
C-82 FA NT	2	PRATT WHITNEY R-2800-23C INTEGRAL SUPERCH. HAMILTON STD. 15" DIA. 3 BL. F.T., HYDROMATIC	T 2100/3 L W 4042 M 2100/5000 G 1950/5000	S 106' 5" L 75' 15" H 26' 5" T 28' 0" W 146' 5 1/2"	B 45500 G 42000* W 42000* M 42000	5	90785 - WINGS 1895 - WINGS NOE - WINGS (180)	2 x 785 2 x 775 2 - 384 (384)	CASIN MAIN	19000	19400	1000S PARACHUTERS ATTENDANTS	42 2500* 11* 32 4	12000	AS ABOVE				
C-87-CF	4	PRATT WHITNEY R-2800-22 INTEGRAL SUPERCH. HAMILTON STD. 11" DIA. 3 BL. F.T., HYDROMATIC	T 1700/3 L W 4042 M 1700/5000 G 1550/5000	S 110' 0" L 66' 4" H 18' 5" T 25' 8" W 104' 5 1/2"	B 33000 G 30000 W 31200* M 30000	5	1895 - WINGS 90785 - WINGS (150)	12 - 2284 5 - 450 (1284)	CASIN MAIN NOE COMPART.	11000 1000	12500	PERSONNEL BAGGAGE	25 800*	4800	SCR-274, 269, 211, 287, 578, 235, RC 35, 43, 103.				


MODEL & BLOCK NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND						HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS	
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND RUN		STD ALT FT.	WAR EMERG		MIL POWER		MAX CONTIN POWER		LOADING		MAX CONTIN		LONG RANGE CRUISE									
		TO DIST FT.	LAND DIST FT.	LANDING SPEED MPH	TO 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	TAKE OFF WEIGHT LB.	BOMBS CARGO PASS LB.	TOTAL FUEL U.S. GAL.	at 10000FT. RANGE ENDUR	at 5000FT. RANGE ENDUR	at 10000FT. RANGE ENDUR	at 15000FT. RANGE ENDUR	at 20000FT. RANGE ENDUR				
C-69-10 -1 thru -5 C-69C-10-1	55000 70000 75000 80000 83000	2300 2900 3100 3300 3500	2900 3500 3700 3900 4100	91 92 93 94 95	1500 1800 2100 2400 2700	1100 1300 1500 1700 1900	20000 15000 10000 5000 5 L	312 329 327 311	308 327 1500 1800	275 1030 1000 1700	275 320 304 270	25.0 13.3 7.1 0.0	82000 93000 10000	8040 10000 10000	4816 5814 1070	2275 2200 850	7.4 7.4 2.2	4025 3800 1400	19.4 17.4 8.5	4050 3775 1250	17.3 15.5 8.2	3925 3675 1100	16.1 15.2 8.1	3000 3225 675	10.4 12.1 3.3	(A) A.R. MIXTURE NECESSARY FOR ENTIRE FLIGHT. (B) FIRST 5.6 HRS. AT 15,000 FT. WITH A.L. MIXTURE; BALANCE AT 20000 FT. WITH A.R. MIXTURE.
C-82 FA NT	30000 35000 42000	1800 2500 2900	1800 2200 2500	82 85 87	1100 1200 1300	1200 1300 1400	20000 15000 10000 5000 5 L	312 329 327 311	308 327 1500 1800	275 1030 1000 1700	25.0 13.3 7.1 0.0	42000 47000 52000	4040 5000 5000	1900 1070	1150 850	5.4 2.2	2800 1400	18.8 8.5	2500 1250	15.2 8.2	2375 1100	13.8 8.1	1775 675	9.0 3.3		
C-87-CF	37000 40000 45000 50000 55000 62000	2300 2700 3000 3200 3400 3600	2300 2700 3000 3200 3400 3600	87 90 95 100 105 106	2000 1500 1800 2400 2800	2300 2300 2400 2400 2400	25000 20000 15000 10000 5000	312 329 327 311	308 327 1500 1800	275 1030 1000 1700	26.7 14.2 7.5 0.0	53500 56000 62000	4040 2500 8500	2814 2814 2814	NO RELIABLE DATA	3175 3050 2800	19.5 18.4 17.0	3150 3025 2775	17.4 16.8 15.7	3050 2950 2700	15.5 14.9 13.7	3000 2875 2600	14.5 14.0 12.9	C-82 FLIGHT TEST REQUESTED		

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




C-69
"CONSTELLATION"

LOCKHEED (MORRIS) "LO"



C-82
"PACKET"

FAIRCHILD (HAGERSTOWN) "FA" & NORTH AMERICAN (DALLAS) "NA"



C-87
"LIBERATOR EXPRESS"

CONSOLIDATED (FT. WORTH) "CF"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.			SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT.	S-SPAN L-LENGTH H-HEIGHT W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX LAND.	NOTES	FUEL TANKAGE		(NO. ROCKETS-SIZE-INSTALLATION)			NO. AND SIZE		MAX. LOAD	TYPICAL MODELS CARRIED (SEE A)			
							T-TAKE OFF W-WAR EMERG M-MILITARY C-CONTINUOUS		TYPE OR LOCATION ALSO (MAX OIL)	NO AND CAPACITY ALSO (MAX FUEL)	NO. GUNS AND SIZE	RDS PER GUN	LOCATION AND TYPE			INTERNAL		EXTERNAL
P-38G-L0 -1 thru -15	2	ALLISON V-1710-51 & -55 TURBO CURTISS 11'6"DIA.-3 BL. F.F., ELECTRIC	T 1225/ S L W NONE M 1150/27000 C 1100/24000	S 52' 0" L 37' 10" H 12' 10" T 18' 8" W 328 Sq. Ft.	B 13500 C 15800 W - M -		1	MAIN - WINGS 2 x 90 RES. - WINGS 2 x 60 DROPP. - WINGS 2 x 75or 2 x 150 b (26)	2 x 90 2 x 60 2 x 75or 2 x 150 b (900)	4-.50 1-20mm	500 150	NOSE - FIXED NOSE-MI CANNON	NONE	2-1000 2-500 2-325 2-250 2-100	2000	SCR-274 SCR-522 SCR-595 NM-28 AR/AP3-13 AR/ARC-3 BC-1204	<p>REFER TO PAGE 4 FOR "FOREWORD" REFER TO PAGE 3 FOR SECURITY CLASSIFICATION REFER TO PAGE 5 FOR DEFINITIONS. REFER TO T.O. LISTED FOR DETAILED PLANNING.</p> <p>P-38G TECH. ORDER 01-75F-1 (REV. 30 SEPT. 1944) P-38H, J, L TECH. ORDER 01-75-1 (REV. 15 FEB. 1945)</p> <p>(a) LIMITED TO 1150 H.P. BECAUSE OF INADEQUATE COOLING. (b) LAST (200) P-38G-10's HAVE MAX. FUEL AS LISTED FOR P-38H MODELS. (c) LAST (200) P-38G-10's HAVE BOMB LOAD AS LISTED FOR P-38H MODELS. (d) LIMITED TO 1240 H.P. BECAUSE OF INADEQUATE COOLING. P-38J's HAVE CORE TYPE COOLER GIVING INCREASED EX-GAME RATINGS AS LISTED. (e) ROCKETS INSTALLED ON P-38L-5 MODELS ONLY: CLUSTER OF 3 LOADED ROCKET TUBES (EXTS ISSUED FOR EARLY MODELS) UNDER EACH WING, REDUCES TOP SPEED 20 MPH. AT 15000 FT.</p>	
P-38H-L0 -1 & -5	2	ALLISON V-1710-89 & 91 TURBO CURTISS 11'6"DIA.-3 BL. F.F., ELECTRIC	T 1425/ S L W NONE M 1240/25000 C 1100/34000	S L H AS ABOVE T W W	B 13700 C 16300 W - M -		1	MAIN - WINGS 2 x 90 RES. - WINGS 2 x 90 DROPP. - WINGS 2 x 75or 2 x 150or 2 x 185 or 2 x 300 (26)	2 x 90 2 x 90 2 x 75or 2 x 150or 2 x 185 or 2 x 300 (900)	4-.50 1-20mm	500 150	NOSE - FIXED NOSE-AN - M2C	NONE	2-1600 2-1000 2-500 2-325 2-250 2-100	3200			
P-38J-L0 -5 thru -25	2	AS ABOVE	T 1425/ S L W 1600/26500 M 1425/26500 C 1100/32500	S L H AS ABOVE T W W	B 14100 C 17500 W - M -		1	MAIN - WINGS 2 x 90 RES. - WINGS 2 x 90 L.L. - WINGS 2 x 55 DROPP. - WINGS 2 x 75 or 2 x 150 or 2 x 185 or 2 x 300 (1010)	2 x 90 2 x 90 2 x 55 2 x 75 or 2 x 150 or 2 x 185 or 2 x 300 (1010)									
P-38L-L0 -1 & -5	2	ALLISON V-1710-111 & -113 TURBO CURTISS 11'6"DIA.-3 BL. F.F., ELECTRIC	T 1425/ S L W 1800/28700 M 1425/29000 C 1100/33800	S L H AS ABOVE T W W	B AS ABOVE C AS ABOVE W - M -		1	AS ABOVE	AS ABOVE	4-.50 1-20mm	500 150	NOSE - FIXED NOSE-AN - M2C	AS ABOVE	AS ABOVE				
P-38L-VN -5			T W M C	S L H T W	B C W M													
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND					HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT										RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND- NO ALLOWANCE FOR RESERVE										REMARKS				
	GROSS WEIGHT LB	TO CLEAR 50'		LANDING SPEED MPH	GROUND RUN		WEIGHT LB	STD. ALT. FT	WAR EMERG.		MIL. POWER		MAX CONTIN. POWER		LOADING			MAX. CONTINUOUS POWER				MAX. CRUISE POWER					LONG RANGE			
		T.O. DIST. FT	LAND DIST. FT		T.O. DIST. FT	LAND DIST. FT			HIGH SPEED MPH	RATE OF CLIMB FT/MIN	HIGH SPEED MPH	RATE OF CLIMB FT/MIN	HIGH SPEED MPH	RATE OF CLIMB FT/MIN	TIME TO CLIMB MIN	TAKE OFF WEIGHT LB	BOMBS CARG. BASE LB	TOTAL FUEL U.S. GAL	at 10000 FT.		at 25000 FT.		at 10,000 FT.		at 25,000 FT.		at 10,000 FT.			
P-38G-L0 -1 thru -15	14000 16000 18000 20000	- 2800 3100 4100	85 90 2000 2500	- 1500 1700 -	1500 1700 -	15000			NONE	400 390 375 360 345	1700 2300 2500 2600 2800	390 375 360 348 332	950 1600 2200 2400 2600	11.0 8.5 6.0 4.0 2.0	19500 17500 15500 13500 11500	NONE NONE NONE 1000 2000	900 600 300 300 300	1000 700 340 320 310	3.3 2.2 1.0 1.0 1.0	1100 750 350 320 310	3.4 2.2 1.0 1.0 1.0	- - 600 550 500	1700 1200 570 510 480	6.2 4.0 1.8 1.7 1.6	2200 1670 850 760 740	10.8 7.9 3.9 3.5 3.5	<p>P-38J & L MODELS HAVE INCREASED DRAG DUE TO EXTERNAL CORE TYPE COOLERS.</p> <p>WITH ONE PROP. FEATHERED, LOSS IN LOW RANGE (CLEAN AIRPLANE) IS APPROX. 15% FOR P-38G; APPROX. 25% FOR P-38L; LOSS IN MAX. CONT. POWER RANGE IS APPROX. 25% FOR P-38G; APPROX. 30% FOR P-38L.</p> <p>LOSS IN SPEED FOR P-38L AT MILITARY POWER, CAUSED BY INSTALLATION OF (10) ZERO LENGTH ROCKET RAILS, IS 17 MPH AT 10,000'. SPEED LOSS WITH (10) 5" AR OR HYAR IS 21 MPH AT 10,000' AND 24 MPH AT 25,000'.</p> <p>P-38L FLIGHT TEST IN PROGRESS</p>			
P-38H-L0 -1 & -5	14000 15000 18000 20000	- 2000 2100 2400	88 95 1300 1700	- 1000 1800 -	1400 1500 -	16300			NONE	402 387 372 360 345	2500 2850 3200 3400 3500	384 370 353 336 318	11.0 8.0 6.5 5.0 2.0	20300 18300 16300 14300 12300	NONE NONE NONE 1000 2000	900 600 300 300 300	1180 820 350 320 300	4.3 2.1 1.2 1.2 1.2	1150 590 370 320 300	3.5 2.0 1.2 1.2 1.2	1800 1380 500 480 460	1700 1180 570 510 480	5.7 4.3 1.8 1.7 1.6	2200 1540 850 750 700	10.2 7.2 4.2 3.6 3.4					
P-38J-L0 -5 thru -25	14000 16000 18000 20000 21000	- 2000 2600 3500 -	102 109 1300 1700 2000	- 1400 -	1200 1400 -	17500				405 414 403 390 377 360	1625 2425 2925 3275 3100 3675	385 368 351 335 317	11.0 9.0 7.0 5.0 4.0 2.0	21600 20200 17500 15500 13500 11500	NONE NONE NONE 1010 2000 3200	1010 740 410 410 410	1050 820 400 400 400	2.8 2.8 1.4 1.4 1.4	1070 500 400 400 410	3.8 2.8 1.4 1.4 1.4	1820 1360 900 710 580	1880 1460 840 730 720	5.8 4.9 2.8 2.4 2.4	2260 1910 1170 970 900	12.1 10.8 6.0 4.8 4.8					
P-38L-L0 -1 & -5	14500 16000 18000 20000	- 2000 2600 -	103 109 1300 1700	- 1400 -	1200 1400 -																									
P-38L-VN -5	20000 22000	2800 3700	- 2200	- 1700	- 2200																									
COLUMN	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	48

NOTES:	(A) SCR-274 COMMAND SET SCR-522 COMMAND SET SCR-595 IFF NM-28 RADIO COMPASS AR/AP3-13 TAIL WARNING RADAR AR/ARC-3 COMMAND SET BC-1204 BEACON RECEIVER	RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK. * FIRST 5 MINUTES WITH MILITARY POWER. # TIME TO CLIMB FROM S.L. BASED ON MILITARY POWER.
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P-38
"LIGHTNING"

MANUFACTURED BY LOCKHEED (BURBANK) *LO* & VOLTEE (MADVILLE) *VN*

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																	
MODEL & BLOCK-NO.	ENGINE & PROP.			SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		RADIO	REMARKS & REFERENCE
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX.LAND.	NOTES	FUEL TANKAGE		NO. ROCKETS-SIZE-INSTALLATION			NO. AND SIZE		TYPICAL MODELS CARRIED (SEE A)			
							TYPE OR LOCATION ALSO (MAX. OIL)		NO. AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	INTERNAL		EXTERNAL	MAX. LOAD	
P-39N-BE -0, -1 & -5	1	ALLISON V-1710-B5 SINGLE SPEED AERO PRODUCTS 11'7" DIA. - 3 BL. CONST. SPD. - HYDRD.	T 1200/ 3 L W 1430/ 9600 M 1125/ 16400 C 1000/ 14000	S 34' 0" L 30' 2" H 12' 5" T 11' 4" W 213 Sq. Ft.	B 6400 C 7700 W - M -		WING - CELLS HELLY - DROP. (14)	12 - 120 1 x 75 gal 1 x 158 gal 1 x 175	6 (4.5") M-10 ROCKETS IN CLUSTERS OF 3 PROCURED IN SERVICE KITS FOR SOME MODELS	4-.30 2-.50 1-37mm	300 200 30	WINGS - FIXED NOSE - FIXED PROP. - TYPE M4	NONE	1-500 1-225 1-250 1-100	500	SCR-274 SCR-522 SCR-535 SCR-695	P-39N SERIES - TECH. ORDER 01-110FM-1 (REV. 25 OCT. 1944) P-39Q SERIES - TECH. ORDER 01-110FM-1 (20 MARCH 1944) (a) P-39Q-30 HAS PROP. DIA. OF 11' 0". (b) P-39Q-20, -25 & -30 DO NOT HAVE WING GUNS.
P-39Q-BE -1 thru -30	1	AS ABOVE	AS ABOVE	AS ABOVE	B 6400 C 7800 W - M -		AS ABOVE	AS ABOVE	6 (4.5") M-10 ROCKETS IN CLUSTERS OF 3 PROCURED IN SERVICE KITS FOR SOME MODELS	2-.50 2-.50 1-37mm	300 200 30	WINGS - FIXED NOSE - FIXED PROP. - TYPE M4	AS ABOVE	AS ABOVE			

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND					HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT							RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND- NO ALLOWANCE FOR RESERVE										REMARKS	
	GROSS WEIGHT	TO CLEAR 50'		GROUND RUN		WEIGHT	STD. ALT.	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER			LOADING		MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE			
		LB	T.O. DIST. FT.	LAND DIST. FT.	LANDING SPEED M.P.H.			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.	TAKE OFF WEIGHT LB	BOMBS CAPAC. LB	TOTAL FUEL U.S. GAL.	at 10000 FT. RANGE MILES	at 10000 FT. ENDUR. HOURS	at 25000 FT. RANGE MILES		at 25000 FT. ENDUR. HOURS
P-39N-BE -0, -1 & -5	5800 7500 8000 8500 9000	- 2500 3000 3500 4200	- - - - -	80 - - - -	1500 - - - - 2200 - - - 2800	7700 25000 20000 15000 10000 5000		NO DATA	308 375 376 357 335	1175 1825 2450 2600 2600	390 395 385 345 320	11.5 8.1 5.8 3.8 1.9	9900 8800 8200 7700 8200	NONE NONE NONE NONE 500	295 278 195 120 120	550 520 370 270 220	2.0 1.9 1.4 0.8 0.8	950 900 650 480 350	3.5 3.3 2.5 1.4 1.3	- - 570 350 270	2.5 2.5 1.5 1.5	1100 1050 750 570 480	5.4 5.3 2.9 2.2 2.1	
P-39Q-BE -1 thru -30		AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	7800	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	

NOTES: (A) SCR-274 COMMAND SET
SCR-522 COMMAND SET
SCR-535 IFF
SCR-695 IFF

RED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK.
* TIME TO CLIMB FROM S.L. BASED ON MILITARY POWER.



P-39
"AIRACOBRA"

MANUFACTURED BY BELL (BUFFALO) "NE"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.			SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		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. M-MAX. LAND.	NOTES	FUEL TANKAGE		(NO. ROCKETS-SIZE-INSTALLATION)			NO. AND SIZE		TYPICAL MODELS CARRIED (SEE A)				
							TYPE OR LOCATION ALSO (MAX. OIL)		NO. AND CAPACITY ALSO (MAX. FUEL)	NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	INTERNAL		EXTERNAL	MAX. LOAD		
P-40N-CU -1	1	ALLISON V-1710-81 SINGLE SPEED CURTISS 11"0" DIA. -3 BL. COMST. SPD., ELECTRIC	T 1200/ 5 L W 1480/ 10000 M 1125/ 17000 C 1000/ 14000	S 37' 4" L 33' 4" H 12' 4" T 8' 2" W 236 Sq. Ft.	B 6400 C 7700 W - M -		REAR - WING FUSELAGE 1 x 54 DMP. - BELLY 1 x 52.75 (16)	10 (5") ROCKETS OR 6 (4.5") M10 ROCKETS PROCURED IN SERVICE KITS FOR SOME MODELS	4-.50	200	WINGS - FIXED	NONE	1-500 1-325 1-250 3-100 6- 20	1-500 2-100 700	SCR-274 SCR-283 SCR-522 SCR-695 MM-26	P-40N TECH. ORDER 01-25CN-1 (REV. 30 APRIL 1945). (a) ALTITUDE LISTED DOES NOT INCLUDE RPM. (b) ENGINE INSTALLATIONS OF P-40N MODELS: P-40N-5 thru -15.....V-1710-81 P-40N-20 thru -35.....V-1710-99 P-40N-40.....V-1710-115		
P-40N-CU -5 thru -40	1	ALLISON V-1710-81, 99, 115 ^b SINGLE SPEED CURTISS 11"0" DIA. -3 BL. COMST. SPD., ELECTRIC	AS ABOVE	AS ABOVE	B 6700 C 8400 W - M -		REAR - WING FUSELAGE 1 x 54 FRONT - WING 1 x 37 DMP. - BELLY 1 x 75.150 DMP. - WINGS 2 x 225 (611)	10 (5") ROCKETS OR 6 (4.5") M10 ROCKETS PROCURED IN SERVICE KITS FOR SOME MODELS	6-.50	280	WINGS - FIXED	NONE	3-500 3-325 3-250 3-100 6- 20	1500				
			T W M C	S L H T W	B C W M													
			T W M C	S L H T W	B C W M													
			T W M C	S L H T W	B C W M													
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT						RANGE AND 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		LOADING			MAX. CONTINUOUS POWER		MAX. CRUISE POWER			LONG RANGE		
		T.O. DIST.	LAND DIST.	T.O. DIST.	LAND DIST.			HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	HIGH SPEED	RATE OF CLIMB	TIME TO CLIMB	TAKE OFF WEIGHT	BOMBS - CARGO	TOTAL FUEL	at 10000 FT.	at 25000 FT.	at 10000 FT.		at 25000 FT.	at 10000 FT.	at 10000 FT.
		FT	FT	FT	FT			MPH	FT/MIN	MPH	FT/MIN	MPH	FT/MIN	MIN.	LB	LB	U.S. GAL.	RANGE	ENDUR.	RANGE		ENDUR.	RANGE	ENDUR.
P-40N-CU -1	7200 8000 8400 8800 9200	- 1700 3100 3400 4300	1700 1800 1900 - -	92 97 100 - -	1100 1200 1300 - -	7700	25000 20000 15000 10000 5000	NO DATA	332 346 348 331 313	1225 1850 2400 2525 2425	313 370 333 315 297	# 12.4 # 9.1 # 6.7 # 4.1 # 2.1	8650 9250 7725 8225	NONE NONE NONE 500	292 197 122 122	900 380 230 210	2.0 1.4 0.8 0.8	- 500 290 260	1.9 1.1 1.1 1.1	1050 780 430 420	4.4 3.2 1.7 1.8	ABOVE CEILING OF AIRPLANE IN MAX. CRUISE POWER	1250 850 520 480	6.7 3.4 2.5 2.3
P-40N-CU -5 thru -40	7200 8400 9000 9400 9800 11500	- 3100 3600 4400 5700	1700 1800 2200 2700 3100 3500	92 97 100 - -	1100 1200 1300 - -	6400	25000 20000 15000 10000 5000	NO DATA	325 340 343 325 308	900 1550 2125 2225 2125	306 325 328 310 291	# 13.0 # 8.8 # 6.0 # 4.7 # 2.4	11400 9500 8900 8400 8900	NONE NONE NONE NONE 500	511 331 236 181 181	1250 670 470 320 300	4.4 2.3 1.6 1.1 1.1	- - 400 400 370	- - 2.3 1.4 1.4	2250 1250 930 500 590	9.8 5.4 3.9 2.3 2.5	AS ABOVE	2800 1550 1080 750 -	14.1 7.6 5.1 3.5 -

NOTES:
 (A) SCR-274 COMMAND SET
 SCR-283 COMMAND SET
 SCR-522 COMMAND SET
 SCR-695 IFF
 MM-26 RADIO COMPASS

RED FIGURES ARE PRELIMINARY. SUBJECT TO REVISION AFTER FLIGHT CHECK
 * TIME TO CLIMB FROM S.L. BASED ON MILITARY POWER



P-40
 "WARHAWK"

MANUFACTURED BY CURTISS (BUFFALO) "CU"

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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 36

AS OF 28 JULY 1945

MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE	WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS		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. M-MAX. LAND	TYPE OR LOCATION ALSO (MAX. OIL)	NO. AND CAPACITY ALSO (MAX. FUEL)	(NO. ROCKETS-SIZE-INSTALLATION)			NO. AND SIZE		
			T-TAKE OFF W-WAR EMERG M-MILITARY C-CONTINUOUS	NOTES		NO. GUNS AND SIZE	RDS. PER GUN			LOCATION AND TYPE	INTERNAL	EXTERNAL	MAX. LOAD		
P-51B-NA -1, -5, -7, -10 P-51C-NT -1 & -3	1	PACKARD V-1650-3 2 SPEED-2 STAGE HAMILTON STD. 11" 2" DIA. - 4 BL. CONST. SPD., HYDRO.	T-1450/10200 W-1295/25200 M-1450/19800 C-1190/31000 1120/20500 940/34000	S-37' 0" L-32' 3" H-13' 8" T-11' 10" W-233 Sq. Ft.	B-7400 C-9800 W-9800 M-	1 1 1 1 1	MAIN - R. WING MAIN - L. WING FUSELAGE DROPP. - WINGS (2)	1 x 92 1 x 92 1 x 85 2 x 75 or 2 x 110 or 2 x 150 (569)	8 (5") ROCKETS OR 4 (5") M-10 ROCKETS PROCURED IN SERVICE KITS FOR SOME MODELS.	280 350	OUTRD. - WINGS INRD. - WINGS	NONE 2-1000 2-500 2-325 2-250 2-100	2000	SCR-274 SCR-515 SCR-522 SCR-535 SCR-595 SCR-595 AN-ARA-8 AN-ARC-3 AN-APS-13 SC-1206 NW-26	P-51B & C TECH. ORDER 01-80JD-1 (REV. 25 MAY 1945) P-51D & K TECH. ORDER 01-80JE-1 (REV. 25 MAY 1945) P-51H TECH. ORDER 01-80JF-1 (REV. 25 APR. 1945) (a) P-51E-NT HAS 11" 0" DIA. AEROPRODUCTS PROPELLER INSTALLED. GIVING APPROX. SAME PERFORMANCE AS SHOWN WITH HAMILTON STD. PROP. (b) ROCKETS INSTALLED ON LAST (1100) P-51D-25-NA; P-51D-10-NT; P-51K-10 & -15 AND SUBSEQUENT MODELS. KITS PROCURED FOR SERVICE INSTALLATION ON SOME OF OTHER MODELS.
P-51B-NA -15 P-51C-NT -5 & -10	1	PACKARD V-1650-7 2 SPEED-2 STAGE HAMILTON STD. 11" 2" DIA. - 4 BL. CONST. SPD., HYDRO.	T-1450/10200 W-1295/25200 M-1450/19800 C-1190/31000 1120/20500 940/34000	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-51D-NA -5 thru -30 P-51D-NT -5 thru -25 P-51E-NT -1 thru -15	1	AS ABOVE EXCEPT P-51D-25-NA & V-1650-9 ENGINE INSTALLED	AS ABOVE	AS ABOVE	AS ABOVE	1	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE	AS ABOVE		
P-51H-NT	1	PACKARD V-1650-9 2 SPEED-2 STAGE AEROPRODUCTS 11" 1" DIA. - 4 BL. CONST. SPD., HYDRO.	T-1380/8100 W-2220/10200 M-1800/23400 C-1470/21800 1190/34900 1080/22100 950/35000	S-37' 0" L-33' 4" H-13' 8" T-11' 1" W-235 Sq. Ft.	B-7050 C-10100 W-9800 M-	1 1 1 1 1	MAIN - R. WING MAIN - L. WING FUSELAGE DROPP. - WINGS (2)	1 x 92 1 x 92 1 x 85 2 x 75 or 2 x 110 (489)	6 (5") ROCKETS WITH, OR 10 (5") ROCKETS WITHOUT EXTERNAL WING BOMBS OR TANKS.	270 270 400	OUTRD. - WINGS CENTER - WINGS INRD. - WINGS	NONE 2-1000 2-500 2-325 2-250 2-100	2000		

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND						HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT						RANGE AND 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. INTIN. POWER		LOADING		MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE								
		T.O. DIST. FT.	LAND DIST. FT.		T.O. DIST. FT.	LAND DIST. FT.		HIGH SPEED MPH	RATE OF CLIMB FT. MIN.	HIGH SPEED MPH	RATE OF CLIMB FT. MIN.	HIGH SPEED MPH	RATE OF CLIMB FT. MIN.	HIGH SPEED MPH	RATE OF CLIMB FT. MIN.	TAKE OFF WEIGHT LB.	BOMBS TOTAL U.S. GAL.	at 10000 FT.	at 25000 FT.	at 10000 FT.	at 25000 FT.	at 10000 FT.		at 25000 FT.				
P-51B & C SERIES WITH (V-1650-3)	8000 9000 10000 11000 12000	- 2200 2500 3000 3500	2100 2300 2500 - - 2400	190 106 111 - - 2000	1100 1200 1300 - - 2400	9800	30000 25000 20000 15000 10000 5000	440 430 427 424 406 388	1825 2425 2525 3075 3150 3050	435 418 427 414 392 374	1425 1825 2175 2475 2700 2600	415 391 390 405 373 335	15.0 11.5 8.5 5.6 2.8	11800 11300 9800 10800 11900	NONE NONE NONE NONE 269	569 489 419 259 269	1520 1270 1100 740 590	4.7 4.0 3.4 2.1 2.2	1880 1440 1240 810 680	5.2 4.1 3.5 2.2 2.4	2000 1870 1670 1170 1050	7.3 6.8 6.0 4.2 3.7	2100 - 1720 1100 1150	7.1 - 6.0 3.9 3.9	2540 2070 1840 1280 1180	10.8 8.5 7.7 5.1 4.9		
P-51B & C SERIES WITH (V-1650-7)	AS ABOVE						9800	30000 25000 20000 15000 10000 5000	485 439 426 414 417 325	1925 2100 2825 2900 3075 3550	435 428 414 414 416 281	1425 1400 1450 1800 1800 1750	415 - - - 5.6 2.8	11800 11300 10800 9800 10800 11900	NONE NONE NONE NONE 269 269	569 489 419 259 269	1750 1500 1280 870 790	5.4 4.6 3.9 2.4 2.4	1950 1650 1430 950 870	5.4 4.6 4.0 2.4 2.4	2200 1700 1550 1100 950	7.6 5.6 5.0 3.3 3.6	2100 1850 1670 1050 1020	7.6 6.1 5.0 2.8 3.1	2440 2080 1850 1300 1150	9.8 8.5 7.7 5.0 4.8		
P-51D & K SERIES	AS ABOVE						10100	30000 25000 20000 15000 10000 5000	422 437 424 413 416 395	1300 1940 2575 2775 2925 1475	433 426 412 413 401 381	1800 1860 1888 2300 2825 3190	418 404 388 387 360 340	- - - AS ABOVE - -	11100 11000 10100 11100 12100	NONE NONE NONE NONE 269 269	489 419 259 259 269	1500 1270 870 790 770	4.6 3.9 2.4 2.4 2.4	1650 1410 950 870 840	4.6 3.9 2.4 2.4 2.5	1620 1550 1050 1000 950	5.4 4.9 3.2 3.0 3.5	1770 1570 1050 950 900	5.4 4.9 3.2 2.8 2.8	2080 1830 1300 1150 1070	8.5 7.7 5.0 4.8 4.3	
P-51H-NT	AS ABOVE						9300	30000 25000 20000 15000 10000 5000	485 487 470 463 449	1925 1900 1690 1475 1530	435 425 430 395 370	1425 1425 1825 1790 1725 1790	415 11.5 8.0 5.9 2.9	11800 10500 9500 10500 11500	NONE NONE NONE NONE 255	475 405 255 255 255	1820 1150 750 870 850	4.0 3.4 2.1 2.1 2.1	1470 1270 800 720 670	4.2 3.5 2.1 2.1 2.1	1670 1400 900 820 800	5.0 5.0 2.7 2.8 2.8	1790 1570 970 860 800	6.2 5.6 2.8 2.1 2.1	2050 1720 1170 1090 980	6.5 5.2 4.9 4.3 4.0		

- NOTES: THREE OR MORE OF THE FOLLOWING:
- (A) SCR-274 COMMAND SET
 - SCR-515 IFF
 - SCR-522 COMMAND SET
 - SCR-535 IFF
 - SCR-595 IFF
 - SCR-595 IFF
 - AN-ARA-8 HOMING ADAPTER
 - AN-ARC-3 COMMAND (W/F)
 - AN-APS-13 TAIL WARNING RADAR
 - SC-1206 BEACON RECEIVER
 - NW-26 RADIO COMPASS

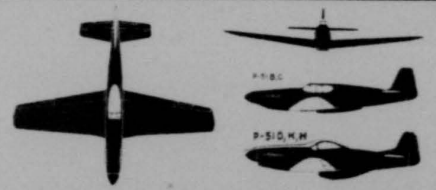
WEIGHT LB.	STD. ALT. FT.	WAR EMERG.	
		HIGH SPEED MPH	RATE OF CLIMB FT. MIN.
30000	450	450	2250
25000	435	435	2750
20000	430	430	3050
15000	430	430	3220
10000	405	405	3350
5000	380	380	3300

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

* WAR EMERGENCY HIGH SPEED AND RATE OF CLIMB BASED ON 90° HD. (WATER INJECTION) USING AN-F-33 FUEL.

LOSSES DUE TO ROCKET INSTALLATIONS:

- (1) COMBAT RADIUS OF ACTION DECREASED BY 12%.
- (2) (10") HVAR ON POST TYPE LAUNCHERS INCREASE TAKE-OFF GROUND RUN BY 20%.
- (3) 4.5 (WS) ROCKET WITH ADAPTER HAS SAME DRAG AS 5" HVAR.



**P-51
"MUSTANG"**

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

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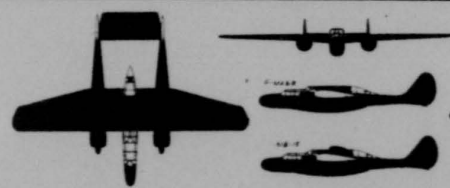
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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART																		
MODEL & BLOCK-NO.	ENGINE & PROP.		SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		ARMAMENT			BOMBS			RADIO	REMARKS & REFERENCE	
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP MFR. TYPE	B.H.P./ALT. T-TAKE OFF W-WAR EMERG. M-MILITARY C-CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX.LAND.	NOTES		FUEL TANKAGE		NO. AND SIZE			NO. AND SIZE			TYPICAL MODELS CARRIED (SEE A)		
								TYPE OR LOCATION ALSO (MAX.OIL)	NO. AND CAPACITY ALSO (MAX.FUEL)	NO. GUNS AND SIZE	RDS. PER GUN	LOCATION AND TYPE	INTERNAL	EXTERNAL	MAX. LOAD			
P-61A-NO -1	2	PRATT-WHITNEY R-2800-10 2 SPD.-2 STD. CURTISS 12" 2" DIA. -4 BL F.F., ELECTRIC	T-2000/4000 W-1800/1600 M-1675/8400 C-1625/17800 1550/22700	S 65' 0" L 98' 11" H 14' 8" T 17' 2" W 664 Sq. Ft.	B 22300 C 27500		2	OUTRD.-WINGS 2 x 205 INBD.-WINGS 2 x 115 (44)	2 x 205 2 x 115	4-.50 4-20mm	560 200	UPPER TURRET FORE-FUSELAGE	NONE	NONE	3200	SCR-522 (2) SCR-695 SCR-718 SCR-720 SCR-729 RC-32 RC-36 RC-198 MW-26 AN/APG-1 AN/APM-1 AN/APM-13 AN/APC-3 AN/ARM-7 AN/ASA-3 BC-1206	P-61A & B TECH. ORDER 01-15FB-1 (REV. 10 MAY 1945) (a) INSTALLED ON FIRST 37 (P-61A-1) ONLY. (b) THE (2) 310 GAL. DROPPABLE WING TANKS OR 2-1600 LB. BOMBS INSTALLED ONLY ON P-61A-11; P-61B-2, -6 & -11 MODELS; OTHERS AS ABOVE.	
P-61A-NO -5, -10, -11	2	AS ABOVE EXCEPT CHANGE TO R-2800-65 ENGINE	T-2000/4000 W-2250/1000 M-2040/12800 C-1930/17000	AS ABOVE EXCEPT P-61B HAS 48" T TREAD LENGTH	B 22300 C 28000		2	OUTRD.-WINGS 2 x 205 INBD.-WINGS 2 x 115 DROPP.-WINGS 2 x 310 (84)	2 x 205 2 x 115 2 x 310 (1260)	4-20mm	200	FORE-FUSELAGE	NONE	2-1500 lb 2-1000 2-500 2-325 2-250 2-100	6400			
P-61B-NO -10	2	AS ABOVE	M-2000/4000 1800/16000 1650/20900	AS ABOVE	B 22650 C 28000		2	OUTRD.-WINGS 2 x 205 INBD.-WINGS 2 x 115 DROPP.-WINGS 4 x 165 or 4 x 310 (84) (1880)	2 x 205 2 x 115 4 x 165 or 4 x 310 (1880)	AS ABOVE	AS ABOVE	NONE	NONE	4-1600 4-1000 4-500 4-325 4-250 4-100	6400			
P-61B-NO -15, -16, -20, -25	2	AS ABOVE	C-1675/8400 1625/17800 1550/22700	AS ABOVE	B 23450 C 29700		3	AS ABOVE EXCEPT P-61B-16 CARRIES ONLY (2) DROPPABLE WING TANKS.	AS ABOVE EXCEPT P-61B-16 HAS ONLY (2) EXTERNAL BOMB STATIONS IN PLACE OF (4)	4-.50 4-20mm	560 200	UPPER TURRET FORE-FUSELAGE	NONE	NONE	3200			
COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE-NO WIND				HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND ENDURANCE STATUTE AIR MILES-NO WIND-NO ALLOWANCE FOR RESERVE										REMARKS				
	GROSS WEIGHT LB	TO CLEAR 50'		GROUND RUN		STD. ALT. FT	WAR EMERG.		MIL. POWER		MAX. CONTIN. POWER		LOADING			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	TAKE OFF WEIGHT LB	BOMBS CARRIED	TOTAL FUEL U.S. GAL	at 10000 FT. RANGE ENDR.	at 25000 FT. RANGE ENDR.	at 10000 FT. RANGE ENDR.	at 25000 FT. RANGE ENDR.	at 10000 FT. RANGE ENDR.					
P-61A-NO -1	24000	-	2100	-	1900	25000	-	-	350	1050	350	500	18.1	27500	NONE	640	370	1.2	420	1.3	810	2.7	790	2.9	1020	4.5	PERFORMANCE SHOWN WITH-OUT DE-ICERS.
P-61A-NO -5, -10, -11	24000	2600	2200	-	1900	25000	358	1025	350	1025	350	475	18.3	32400	NONE	1280	750	2.4	-	-	-	-	-	-	1900	8.6	(c) CRUISE AT 15000' UNTIL EXTERNAL TANKS ARE EMPTY; DROP EXTERNAL TANKS; CLIMB TO 25000' AND COMPLETE FLIGHT.
P-61B-NO -1, -2, -5, -9, -11	28000	2900	2300	-	1900	20000	369	1625	358	1550	355	475	10.3	30400	NONE	970	560	1.8	620	1.8	1140	4.5	1030	4.1	1425	6.3	
P-61B-NO -10	30000	3300	-	-	2200	15000	364	2250	350	1900	343	475	7.2	28000	NONE	640	370	1.2	420	1.3	810	2.7	790	2.9	1020	4.5	P-61B FLIGHT TEST IN PROGRESS
P-61B-NO -15, -16, -20, -25	32000	3800	-	-	2500	10000	355	2550	333	2000	323	475	4.5	30000	2000	640	-	-	-	-	-	-	-	-	-	-	

- NOTES:
(A) SEVEN OR MORE OF FOLLOWING:
SCR-274 COMMAND SET
SCR-522 COMMAND SET
SCR-695 IFF
SCR-718 RADAR ALTIMETER
SCR-720 RADAR SET IN NOSE
SCR-729 INTERMODULATOR
RC-32 FILTER EQUIPMENT
RC-36 INTERPHONE AMPLIFIER
RC-198 FILTER EQUIPMENT
MW-26 RADIO COMPASS
AN/APG-1 GUN LAYING RADAR
AN/APM-1 LOW ALT. ALTIMETER
AN/APM-13 TAIL WARNING RADAR
AN/ARC-5 COMMAND VHF
AN/ARM-7 RADIO COMPASS
AN/ASA-3 STATIC DISCHARGE
BC-1206 BEACON RECEIVER

RED FIGURES ARE PRELIMINARY; SUBJECT TO REVISION AFTER FLIGHT CHECK.
* TIME TO CLIMB FROM S.L. BASED ON MILITARY POWER.



P-61
"BLACK WIDOW"

MANUFACTURED BY NORTHROP (NORTHROP) "NO"

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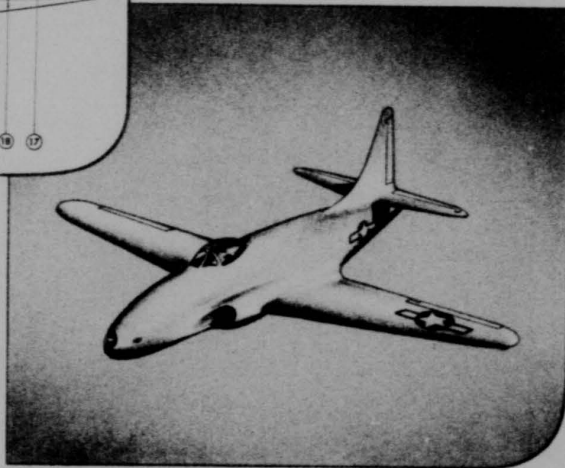
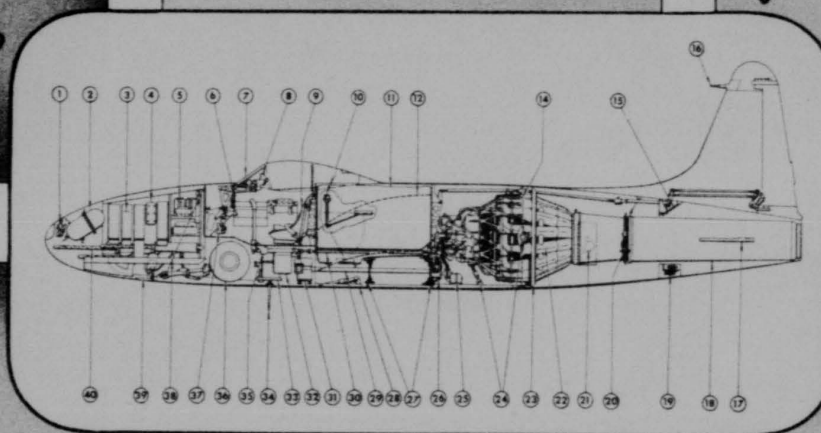
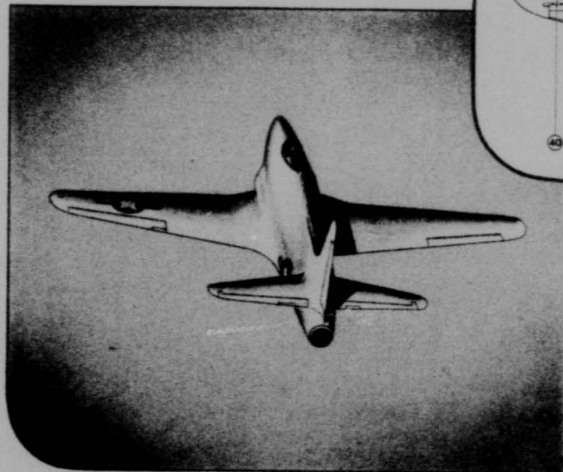
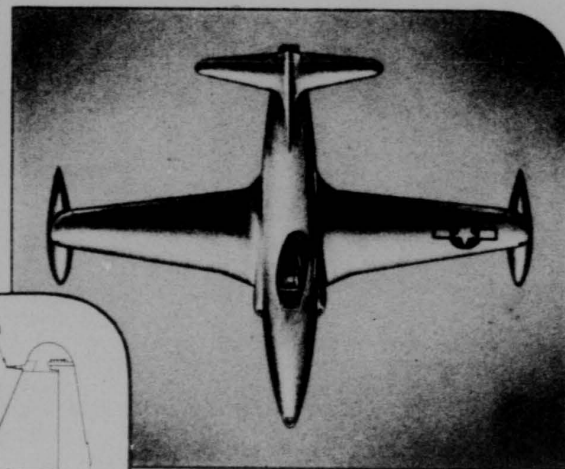
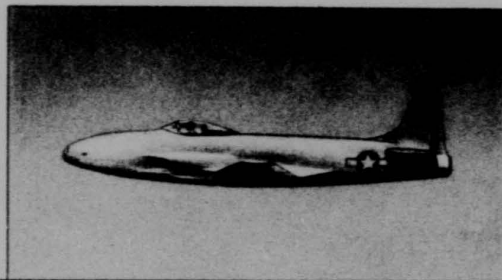
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29 JUNE 1945

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LOCKHEED P-80A

Shooting Star



- | | |
|-----------------------------|----------------------------------|
| 1. Landing light | 21. Elevator tab motor |
| 2. Oxygen cylinder | 22. Engine |
| 3. Ammunition box | 23. Air intake seal |
| 4. Armament junction box | 24. Engine mounts |
| 5. Command radio | 25. Fuel filter |
| 6. Instrument panel | 26. Aileron booster |
| 7. Bullet-proof windshield | 27. Wing spars |
| 8. Gun sight | 28. Dive flaps |
| 9. Pilot's seat | 29. Aileron torque tube |
| 10. Fuel gage transmitter | 30. Elevator push-pull tube |
| 11. Main fuel tank | 31. Identification radio |
| 12. Air intake duct | 32. Electrical junction box |
| 14. Aft fuselage joint | 33. Battery |
| 15. Elevator spring | 34. Identification radio antenna |
| 16. Air speed pitot | 35. Elevator-aileron control |
| 17. Tail pipe support track | 36. Nose wheel |
| 18. Tail pipe | 37. Rudder pedals |
| 19. Remote compass | 38. Nose section joint |
| 20. Tail pipe clamp | 39. Shell case ejection doors |
| | 40. Machine guns-.50 cal. |

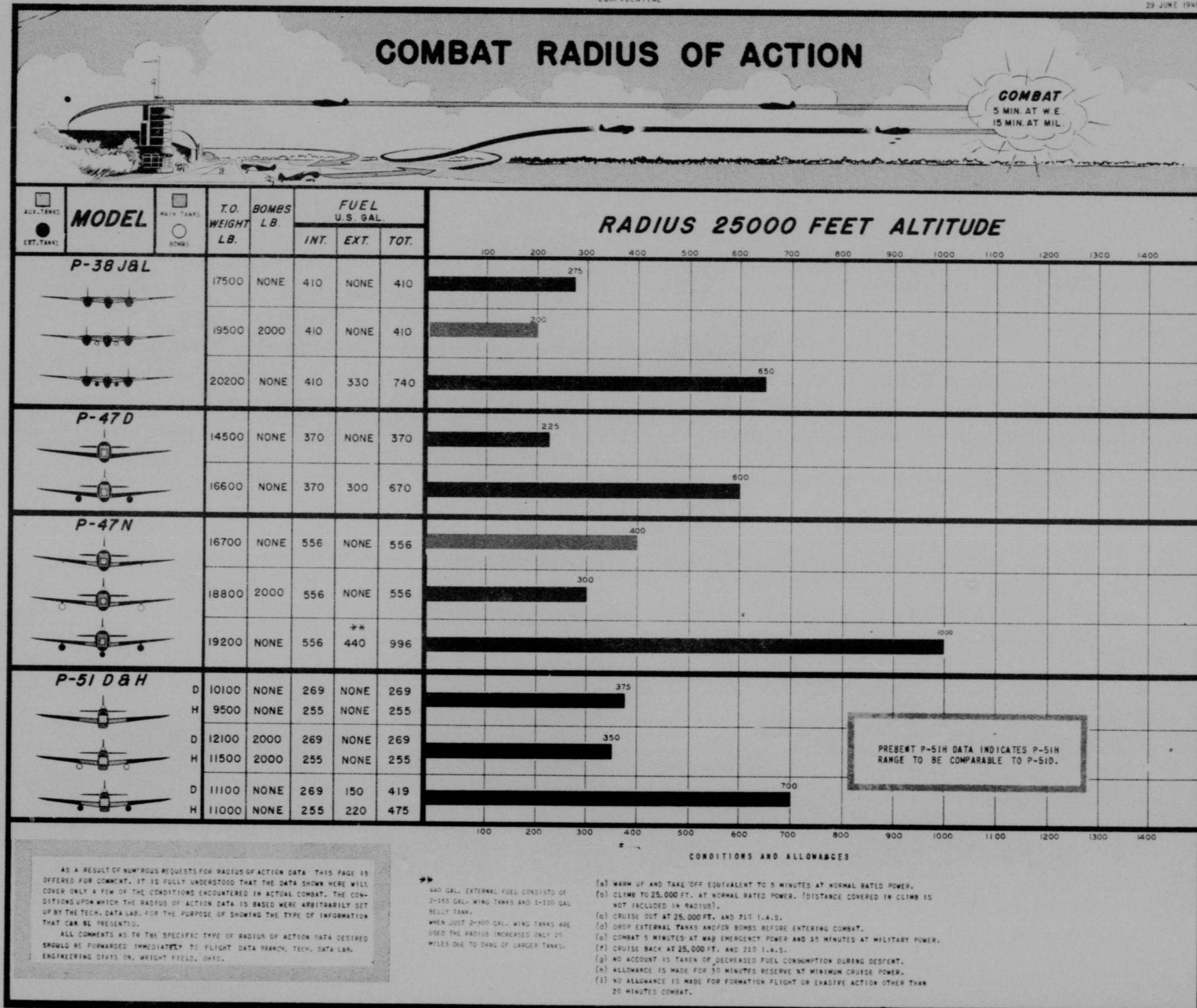
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29 JUNE 1945



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TACTICAL PLANNING CHARACTERISTICS & PERFORMANCE CHART

PAGE 43
AS OF 31 AUGUST 1945


MODEL & BLOCK-NO.	ENGINE & PROP.			SIZE		WEIGHT		COMBAT CREW	FUEL & OIL		CARGO OR PASSENGERS				RADIO	REMARKS & REFERENCE		
	NUMBER	ENGINE MFR. MODEL SUPERCHARGER PROP. MFR. TYPE	B.H.P./ALT. T - TAKE OFF W - WAR EMERG. M - MILITARY C - CONTINUOUS	S-SPAN L-LENGTH H-HEIGHT T-TREAD W-WING AREA	B-BASIC C-COMBAT W-WAR MAX. M-MAX LAND.	NOTES	FUEL TANKAGE		STATION	CAPACITY	MAX. LOAD LB.	STATION	PLACES	MAX. LOAD LB.			TYPICAL MODELS CARRIED	
							TYPE OR LOCATION ALSO (MAX. OIL)											NO AND CAPACITY ALSO (MAX. FUEL)
C-45F-BH	2	PRATT-WHITNEY R-985 AR-1 OF -3 INTEGRAL HAMILTON STD. 9'2" DIA-2 BL. F.F., CONST. SPEED	T 450/5 L W NONE M NONE C 450/5 L	S 47' 8" L 34' 3" H 9' 8" T 12' 11" W 348 Sq. Ft.	B 5800 C 7850 W 8725 M 7850		MAIN - WINGS 2 x 78 AUX. - WINGS 2 x 25 (16)	2 x 78 2 x 25 (206)	N O N E			CABIN	5	1000	SCR-274H SCR-299G RC-428 RC-35 SCR-895	C-45F TECH. ORDER 01-900D-1 (REV. 15 FEB. 1945) C-54A TECH. ORDER 01-1550B-1 (REV. 25 FEB. 1945) UC-78 SERIES TECH. ORDER 01-125-1 (REV. 20 NOV. 1944)		
C-64A-ND	1	PRATT-WHITNEY R-1340 AR-1 INTEGRAL 9'1" or 9'7" DIA. 2 BL., CONST. SPD.	T 600/5 L W NONE M NONE C 550/5000	S 51' 6" L 32' 4" H 10' 1" T 9' 1" W 325 Sq. Ft.	B 4800 C 7400 W 8000 M 7400		WINGS FRONT BELLY REAR BELLY AUX. - CABIN (20)	2 x 60 1 x 45 1 x 77 1 x 38 (280)	CABIN	1500	1500	CABIN	4 LITTERS or 6 PASS.	1200	SCR-274H SCR-578 SCR-595 SCR-895 RC-198			
UC-78 UC-78B CE UC-78C	2	JACOBS R-755-9 NONE HAMILTON STD. 7'9" DIA.-2 BL. CONST. SPEED	T 245/5 L W NONE M NONE C 225/5 L	S 41' 11" L 32' 9" H 9' 11" T 12' 7" W 295 Sq. Ft.	B 4200 C 5700 W 5700 M 5700		WINGS AUX. - FUSEL. (10)	2 x 60 1 x 30 (150)	N O N E			CABIN	3	800	SCR-283			

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


MODEL & BLOCK-NO.	TAKE OFF & LANDING HARD SURFACE - NO WIND					HIGH SPEED & CLIMB CLEAN AIRPLANE AT NORMAL COMBAT WEIGHT								RANGE AND ENDURANCE STATUTE AIR MILES - NO WIND - NO ALLOWANCE FOR RESERVE										REMARKS
	GROSS WEIGHT LB.	TO CLEAR 50'		GROUND RUN LANDING SPEED MPH	STD. ALT. FT.	WAR EMERG. HIGH SPEED MPH	MIL. POWER		MAX. CONTIN. POWER		LOADING			MAX. CONTINUOUS POWER		MAX. CRUISE POWER		LONG RANGE						
		T.O. DIST. FT.	LAND DIST. FT.				HIGH RATE OF CLIMB FT. MIN.	MIL. RATE OF CLIMB FT. MIN.	HIGH RATE OF CLIMB FT. MIN.	TIME TO CLIMB MIN.	TAKE OFF WEIGHT LB.	BOMB CARGO PASS. LB.	TOTAL FUEL U.S. GAL.	at 5000FT. RANGE ENDUR.	at 15000FT. RANGE ENDUR.	at 5000FT. RANGE ENDUR.	at 15000FT. RANGE ENDUR.	at 10000FT. RANGE ENDUR.						
C-45F-BH	5500 7000 8000 8700	- 1100 1600 2100	1700 1800 1950 -	56 58 62 -	1200 1250 1400 -	7850	NOT APPLICABLE	188 206 210 215 206	250 550 900 1250 1200	29.0 15.8 8.4 4.1 0.0	7850 8725	NONE 1000	206	500 500	2.4 2.4	475* 475*	2.3 2.3	675 650	3.5 3.4	650* 625*	3.4 3.5	850 750	4.8 4.4	(a) SPECIAL OXYGEN PROVISIONS MUST BE MADE FOR ALTITUDE FLIGHTS. (b) AT 9000 FT. ALTITUDE.
C-64A-ND	5500 6000 7000 8000	- 1250 1800 2800	1150 1200 1450 -	- - 64 -	575 625 750 -	7400	NOT APPLICABLE	- - 400 500 145	- 200 45.0 19.0 9.0 600	- - - - - -	7400 7400	400 1500	280 120	750 250	5.0 1.7	900* 350*	5.0 2.5	1000 450	7.7 3.5	NOT APPLICABLE	1275 500	10.7 4.2		
UC-78 UC-78B CE UC-78C	4500 5000 5500 5700	- 1325 1700 2000	- - - -	- - - -	- 625 650 725	5700	NOT APPLICABLE	144 181 171 175	220 520 60.0 950	30.0 15.0 6.0 0.0	5700 5700	400 600	150 120	600 475	3.6 2.8	675 500	2.9 2.3	775 575	4.8 3.6	NOT APPLICABLE	850 ^b 650 ^b	6.0 4.7		

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 48


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



C-45F
EXPEDITOR



C-64A
HORSEMAN



UC-78
BOBCAT

MANUFACTURED BY BEECH (WICHITA) "AN" (MONTREAL) "CO" & CESSNA (WICHITA) "CE".

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**GLIDER AND
TOWPLANE SECTION**

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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 towplanes 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 max. contin. at S.L.)
- (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.

TYPE OF RELEASE: A number of combinations shown are not eligible for clear releases, for complete information on release characteristics see T.O. 01-1-143, dated 5 Mar. 1945.

RED PRINT: Preliminary estimates or calculated data.

RESTRICTED

DEFINITIONS

PAGE 46
AS OF:
28 JULY 1945

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: (AT S.L.) (To clear 50' object)	Distances representative of minimum airport requirements. (No allowance made for tow rope glider length).
Take off speed:	Normal for average pilot. (Towplane I.A.S.)
Ground run:	Distances representative of minimum runway requirements. (No allowance made for tow rope glider length).
CLIMB (I.A.S. for climb)	Minimum towplane indicated air speed for good control & satisfactory engine cooling.
Initial rate of climb:	Sea level rate of climb at minimum towplane indicated air speed.
Note:	For some combinations rate of climb tends to increase up to critical altitude of towplane.
Service ceiling:	Altitude at which rate of climb is 100'/min.
Time to service ceiling:	Time to climb in minutes from sea level to service ceiling based on I.A.S. for climb.
RANGE & ENDURANCE:	(See discussion under foreword)
Radius of action:	Distance glider can be towed and released with towplane having enough fuel to return to base alone.
Time out:	Time from take off to release of glider, (At recommended cruising altitude).
Time back:	Time required for towplane to return to base alone at recommended cruising speed and altitude.
Max. range & endurance:	Practical maximum range which glider can be towed under conditions set forth and corresponding time required.

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 47
AS OF:
28 JULY 1945

BOMBER TOWPLANE AND CG-4A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE 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	TIME OUT (HRS.)	TIME BACK (HRS.)		RANGE	ENDUR.	
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(M.P.H.)	(MI.)	(HRS.)	(HRS.)	(MI.)	(HRS.)									
B-17F & (1) CG-4A	7500	3800	59100	NONE	2780	150	6000	110	4000	135	300	12000*	37	(990)	6.8	6.0	5000	1380	9.1	* LIMITED- NO OXYGEN IN GLIDER
														(980)	6.3	5.5	10000	1370	8.8	
B-17F & (2) CG-4A	7500	3800	52500	NONE	1700	150	5750	110	3750	135	300	11000	57	510	3.4	3.1	5000	720	4.8	NOTE: THE 59100 LB. LOADING WITH (2) GLIDERS IS FOR EMERGENCY RE- LEASE ONLY.
	7500	3800	59100	NONE	2780	150	6600	110	4300	135	210	8000	44	860	6.0	5.2	5000	1140	7.9	
B-24D & (1) CG-4A	7500	3800	52500	NONE	2344	150	3750	115	3000	140	550	12000*	24	(870)	5.7	4.7	5000	1360	8.8	* LIMITED- NO OXYGEN IN GLIDER
	7500	3800	59000	6000	2344	150	4600	115	3650	140	325	12000*	41	(830)	5.6	4.1	10000	1280	7.8	
B-25C & (1) CG-4A	7500	3800	30000	2000	972	150	4500	120	3700	140	390	12000*	38	540	3.4	3.0	5000	700	3.8	* LIMITED- NO OXYGEN IN GLIDER NOTE: LOADINGS SHOWN ARE FOR PRO- VISIONAL RELEASE ONLY.

COLUMN— 1

NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143 dated 5 MARCH 1945
- (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-4D 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
	<h3>TYPICAL GLIDER CAPACITIES</h3>	
B- (3700 to 4500)	(a) TROOP CARRIER: CREW(2) & TROOPS(13).	S- 55' 5"
C- 7500	(b) CARGO CARRIER: CREW(2) & TROOPS(4) & JEEP CAR(1).	L- 48' 1/2"
W- 9000	(c) CARGO CARRIER: CREW(2) & TROOPS(3) & 75MM. HOWITZER(1) & 75MM. AMMUNITION(18 RB.)	H- 12' 7"
		T- 9' 4"
		W- (Tabt. gear) 852 sq. ft.

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TOWPLANE & GLIDER TACTICAL PLANNING PERFORMANCE CHART

PAGE 4B
AS OF:
28 JULY 1945

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.)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		20
C-46A & (1)CG-4A	7500	3800	41000	NONE	1400	150	2900	85	2150	120	640	12000*	22	770	5.2	4.7	5000	1255	8.5	* LIMITED - NO OXYGEN IN GLIDER.	
	7500	3800	46000	5000	1400	150	3950	90	2900	120	490	12000*	30	715	5.3	4.3	5000	1115	8.2		
C-46A & (2)CG-4A	7500	3800	41000	NONE	1400	150	4100	85	2950	120	330	12000*	50	605	4.5	3.7	5000	850	6.3	* LIMITED- NO OXYGEN IN GLIDER. NOTE: THE 46000 LB. LOADING WITH (2) GLIDERS IS FOR EMERGENCY RELEASE ONLY.	
	7500	3800	46000	5000	1400	150	6200	90	4200	120	240	8700	43	555	4.1	3.4	5000	755	5.7		
C-47, 47A & 53 (PADDLE BLADE PROPS) & (1)CG-4A	7500	3800	26000	3000	804	150	4150	80	2550	105	515	12000*	31	575	4.8	3.6	5000	955	7.9	* LIMITED - NO OXYGEN IN GLIDER.	
	7500	3800	29000	6000	804	150	4900	85	2750	105	410	11300	37	545	4.6	3.4	5000	870	7.3		
	7500	3800	31000	8000	804	150	5450	85	2950	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	4280	80	2650	105	465	11800	35	525	4.4	3.6	5000	870	7.3		
	7500	3800	29000	6000	804	150	5550	80	2900	105	370	10600	38	485	4.1	3.4	5000	830	6.9		
C-47, 47A & 53 (PADDLE BLADE PROPS) & (2) CG-4A	7500	3800	24200	1200	804	150	5700	80	3050	105	220	7800	46	450	4.0	2.8	2000	665	5.8	LOADINGS SHOWN ARE FOR EMERGENCY RELEASE ONLY.	
	7500	3800	26000	3000	804	150	6360	80	3250	105	180	7300	50	435	3.8	2.7	2000	630	5.5		

NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-113 dated 5 MARCH 1945
(2) ALL PERFORMANCE SHOWN WITH GLIDER TRAINING GEAR ATTACHED.

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
14500)
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 - 85'8"
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 50
AS OF:
28 JULY 1945

CARGO TOWPLANE AND CG-13A 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 OR PASS. (LB.)	FUEL (U.S. GAL.)	RADIUS (MI.)									TIME OUT (HRS.)	TIME BACK (HRS.)	RANGE (MI.)		ENDUR. (HRS.)		
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(M.P.H.)	(FT.)	I.A.S.	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS.)	(HRS.)	(FT.)	(MI.)	(HRS.)		
C-47, 47A & 53 PADDLE BLADE PROPS & (1) CG-13A	10000	1300	24200	1200	804	195	4100	85	2600	105	460	12000*	36	555	4.8	3.6	2000	855	7.4		
	15700	7000	24200	1200	804	195	5150	90	3100	105	300	9500	41	485	4.2	3.2	2000	725	6.3		
	17700 [†]	9000	24200	1200	804	195	5850	90	3350	105	215	8500	45	460	4.0	3.0	2000	675	5.9		
C-46A & (1) CG-13A	10000	1300	41000	NONE	1100	195	3950	85	2750	120	465	12000*	29	700	5.2	4.2	5000	1095	8.1		
	18900	10200	41000	NONE	1100	195	4650	90	3250	120	320	12000*	45	610	4.6	3.7	5000	895	6.7		

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 5 MARCH 1945 (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 SEC. 194J 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 (65 RDS.)
 - (e) TROOPS (10) & 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

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AS OF:
28 JULY 1945

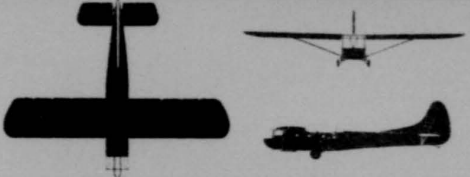
CARGO TOWPLANE AND CG-15A GLIDER

TOWPLANE & GLIDER COMBINATION	LOADING						TAKE OFF (WITH GLIDER ATTACHED) S.L.-HARD SURFACE-NO WIND			CLIMB (AT MINIMUM TOW SPEED)				RANGE & ENDURANCE MAXIMUM STATUTE AIR MILES-NO WIND-NO RESERVE						REMARKS	
	GLIDERS		TOWPLANE				MAX TOW SPEED (M.P.H.)	TO CLEAR 50' OBJ. DISTANCE (FT.)	TAKE OFF SPEED (I.A.S.)	GROUND RUN DISTANCE (FT.)	I.A.S. FOR CLIMB (M.P.H.)	INITIAL RATE OF CLIMB (FT./MIN.)	SERVICE CEILING (FT.)	TIME TO SERVICE CEIL. (MIN.)	RADIUS OF ACTION (GLIDER RELEASED AT RADIUS)			RECOMM. CRUISING ALTITUDE (FT.)	MAX. RANGE (WITH GLIDER)		
	TAKE-OFF WEIGHT (LB.)	CARGO OR PASS. (LB.)	TAKE-OFF WEIGHT (LB.)	BOMBS CARGO OR PASS. (LB.)	FUEL (U.S. GAL.)	RADIUS (MI.)									TIME OUT (HRS.)	TIME BACK (HRS.)	RANGE (MI.)		ENDUR. (HRS.)		
	(LB.)	(LB.)	(LB.)	(LB.)	(U.S. GAL.)	(M.P.H.)	(FT.)	(I.A.S.)	(FT.)	(M.P.H.)	(FT./MIN.)	(FT.)	(MIN.)	(MI.)	(HRS.)	(HRS.)	(FT.)	(MI.)	(HRS.)		
C-47 47A&53 MIDDLE BLADE PROPS & (1) CG-15A	8000	3950	26000	3000	804	180	4200	80	2700	105	485	* 12000	37	555	4.4	3.8	5000	850	6.8	* LIMITED - NO OXYGEN IN GLIDER.	
	8000	3950	29000	6000	804	180	5150	85	3200	105	365	10500	45	520	4.2	3.5	5000	775	6.2		
	8000	3950	31000	8000	804	180	5700	85	3600	105	320	9500	45	490	3.9	3.3	5000	720	5.7		
C-46A & (1) CG-15A	8000	3950	41000	NONE	1400	180	3400	85	2400	120	620	12000*	23	755	5.3	4.6	5000	1215	8.4	* LIMITED - NO OXYGEN IN GLIDER.	
	8000	3950	46000	5000	1400	180	4550	90	3200	120	480	12000*	30	715	5.3	4.3	5000	1115	8.3		

NOTES:

- (1) REFERENCE MATERIAL FROM TECHNICAL ORDER 01-1-143, DATED 5 MARCH 1945
- (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		S- 62'3"
B- 4050		L- 48'9"
C- 8000		H- 12'7"
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 RUG.)	T- -
		W- 556 SQ.'

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