

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		BOMBER 1-1000#	BOMBER 1-1000#	BOMBER 1-500#	BOMBER 1-500# TWO TANKS EXTERNAL 10701
GROSS WEIGHT	LBS.	10403	10403	9903	
EMPTY WEIGHT - Actual -	LBS.	6533			
FUEL / OIL	GALS.	254/16	254/16	254/16	370/16
FIXED GUNS/AMMUNITION		2-.50 cal./360 rds.			
FLEXIBLE GUNS/AMMUNITION		2-.30 cal./2000 rds.			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	32.1	32.1	30.5	33.0
POWER LOADING ①	LBS./BHP.	10.4	11.6	11.0	11.9
V-MAX. SEA LEVEL	MPH.	238	221	224	212
V-MAX. AIRPLANE CRIT. ALT.	MPH.	252/13800	244/15700	248/15700	232/15700
V-STALL GROSS WEIGHT ②	MPH.	79.8	79.8	77.8	80.9
V-STALL WITHOUT FUEL ②	MPH.	73.6	73.6	71.6	72
TIME-TO-CLIMB -10000 FT.-	MIN.	7.4	8.8	8.0	9.6
TIME-TO-CLIMB -20000 FT.-	MIN.	19.1	23.3	20.4	26.4
SERVICE CEILING	FT.	24300	24100	25100	23200
TAKE-OFF DISTANCE -CALM-	FT.	1225	1225	1073	1324
TAKE-OFF DISTANCE -15 KN-	FT.	800	800	682	877
TAKE-OFF DISTANCE -25 KN-	FT.	570	570	480	625
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	1700	1280	1400	1200
MAX. RANGE / V-AV ③	STMI/MPH.		1115/139	1115/138	1345/138
BOMBING RADIUS/V-AV -20% R-	N MI./KN.				
BOMBING RADIUS/V-AV -33% R-	N MI./KN.				
PATROL RADIUS/V-AV -20% R-	N MI./KN.				
PATROL RADIUS/V-AV -33% R-	N MI./KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.		240	260	420
ENGINE / PROP GEAR RATIO		W. A. C. R 1820-60 (3:2)			
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE OFF.	
	1200/2500/S. L. -1900	1000/2300/S. L. -5800		1200/2500	
	1000/2500/8100-13800	900/2300/9300-15700			
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED	16	254	FUSELAGE (EXTERNAL)	
	UNPROTECTED			Bombs:	
	TOTAL - FIXED INTERNAL	16	254	1-1600#; 1-1000#; 1-500#	
	DROPPABLE			Depth Bombs:	
DROPPABLE Wings 2e58		116		1-650#; 1-325#	
TOTAL		16	370	WINGS (EXTERNAL)	
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS		Bombs:		
	① BHP AT MAX. CRIT. ALT.		2-100#		
	② STALL - WITHOUT POWER		2-325#		
	③ AT 1500' ALTITUDE		Changes incorporated: Contract through AF Service through 40		

Supersedes 8/1/43

DATE 1 June 1944

MODEL SBD-5

NAVAER-16198 (Rev. 4-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5	6	7	8
LOADING CONDITION		BOMBER 1-1600#	SCOUT	SCOUT TWO TANKS EXTERNAL	BOMBER** 1-500# PLUS 8-5" ROCKETS
GROSS WEIGHT	LBS.	10439	9352	10148	10700
EMPTY WEIGHT - Actual -	LBS.		6533		6689
FUEL/OIL	GALS.	165/12	254/16	376/16	254/16
FIXED GUNS/AMMUNITION			2-.50 cal. / 360 rds.		
FLEXIBLE GUNS/AMMUNITION			2-.30 cal. / 2000 rds.		
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	32.1	28.8	31.2	32.9
POWER LOADING ①	LBS./BHP	11.6	10.4	11.3	11.9
V-MAX. SEA LEVEL	MPH	221	229	216	209
V-MAX. AIRPLANE CRIT. ALT	MPH	244/15700	255/15700	239/15700	230/15700
V-STALL. GROSS WEIGHT ②	MPH	79.9	75.6	78.8	89.8
V-STALL. WITHOUT FUEL ②	MPH	75.9	69.1	69.6	83.2
TIME-TO-CLIMB -10000FT.-	MIN.	8.8	7.2	8.4	9.6
TIME-TO-CLIMB -20000FT.-	MIN.	23.3	17.7	21.8	26.4
SERVICE CEILING	FT.	24000	26100	25000	23200
TAKE-OFF DISTANCE -CALM-	FT.	1238	920	1148	1469
TAKE-OFF DISTANCE -15 KN-	FT.	810	570	740	994
TAKE-OFF DISTANCE -25KN-	FT.	578	390	523	727
TAKE-OFF TIME	SECONDS.				
RATE OF CLIMB -SL-	FT./MIN.	1280	1550	1330	1190
MAX. RANGE /V-AV. ③	ST. MI./MPH.	680/145	1225/153	1565/140	840/146
BOMBING RADIUS/V-AV -20%R-	NMI./KN.				
BOMBING RADIUS/V-AV -33%R-	NMI./KN.				
PATROL RADIUS/V-AV -20%R-	NMI./KN.				
PATROL RADIUS/V-AV -33%R-	NMI./KN.				
SCOUT RADIUS	NMI.		305	400	
COMBAT RADIUS	NMI.	95			215

PERFORMANCE IS BASED ON - FLIGHT TEST

RANGE & RADIUS ARE BASED ON FLIGHT TEST FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

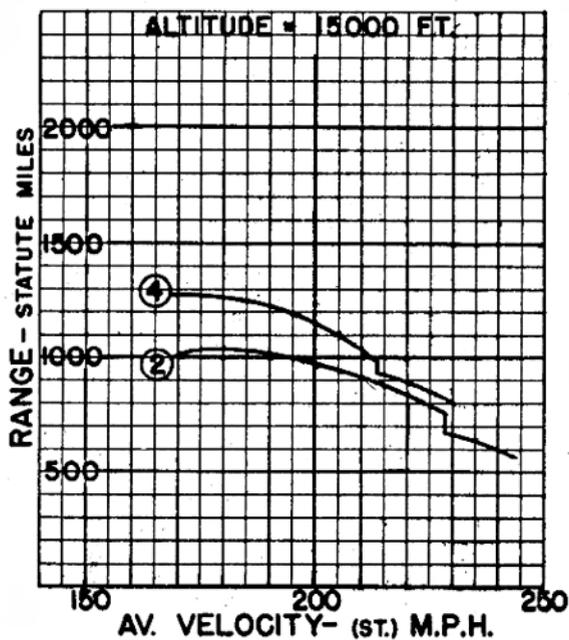
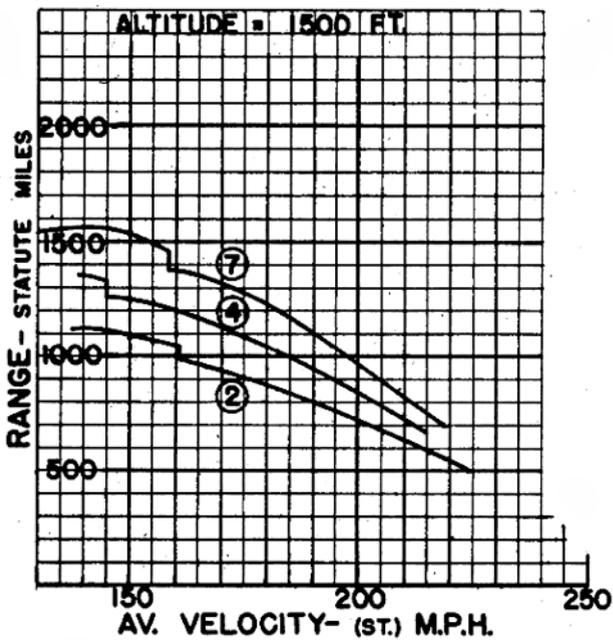
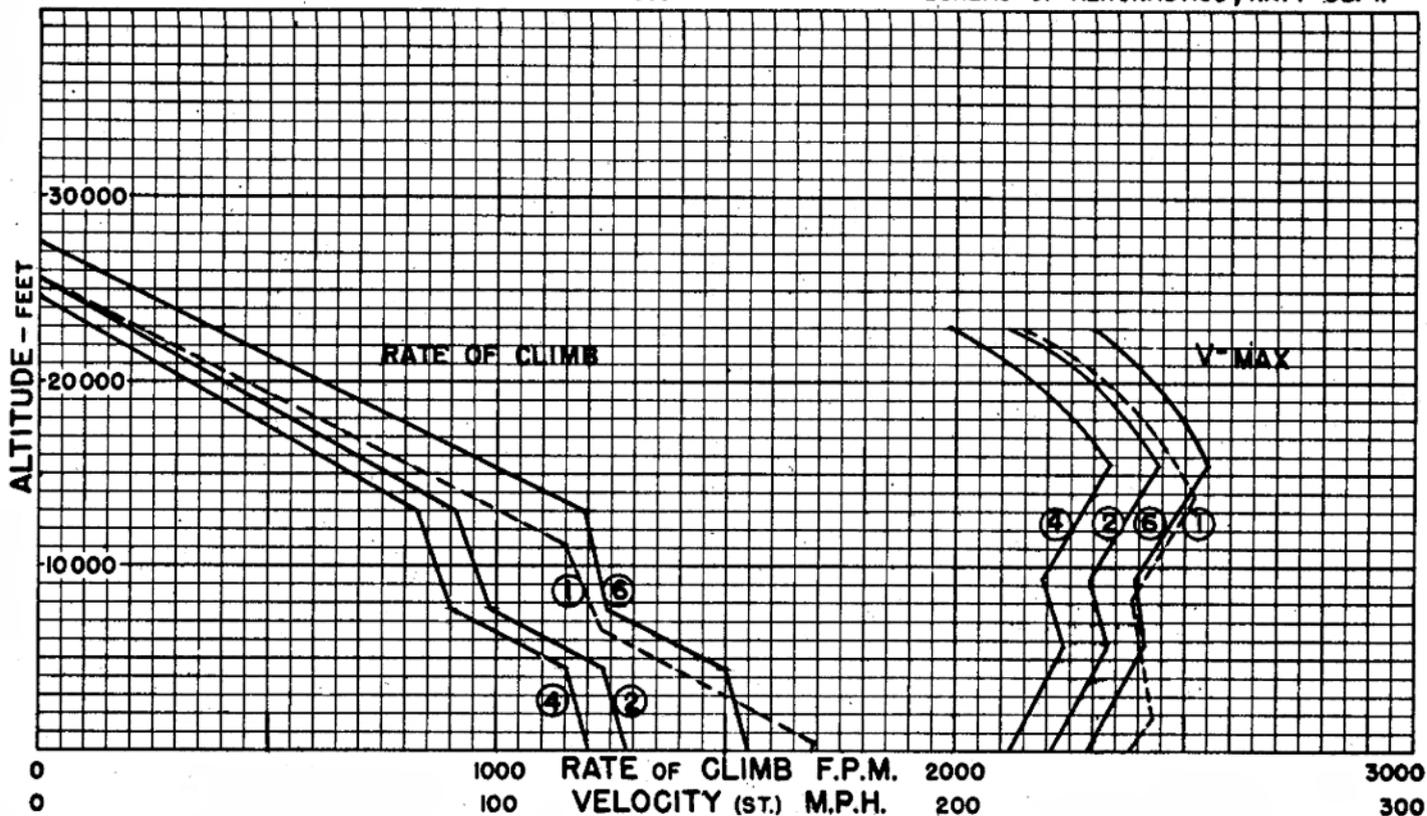
PRACTICAL COMBAT RADIUS is based on 20 min. warm up and idling; 1 min. take off; 20 min. rendezvous at 60% normal sea level power (n.s.p.) and auto lean; climb to 15000 ft* at 60% n.s.p. and auto lean; cruise out at 15000 ft. at 60% n.s.p. and auto lean; drop unprotected droppable tanks; dive and drop bombs and torpedoes; combat 5 min. at military rated power plus 10 min. at full normal power; cruise back at 1500 ft. at 170 knots true airspeed and auto lean; 60 min. at V for max. range and auto lean allowed for rendezvous, landing and reserve. Radius includes distance covered in climb but not in descent. Practical Scouting Radius is 1/3 of range at V for max. range at 1500 ft. with fuel taken out for 20 min. warm up, 1 min. take off, and 60 min. rendezvous, landing and reserve.

*For condition 3: Climb to 15000 ft. at 60% n.s.p. and auto lean

For conditions 2, 4, 5 and 8: Climb to 15000 ft. at full normal power and auto lean

**With MK-4 Launchers

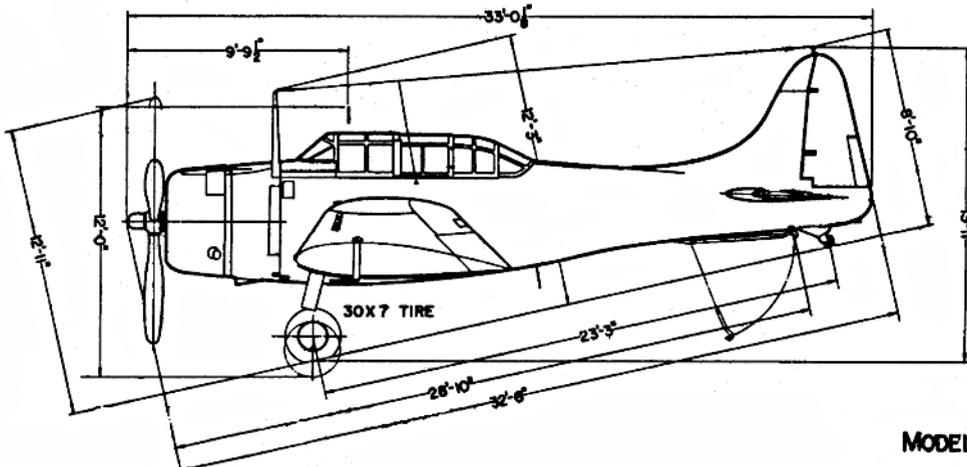
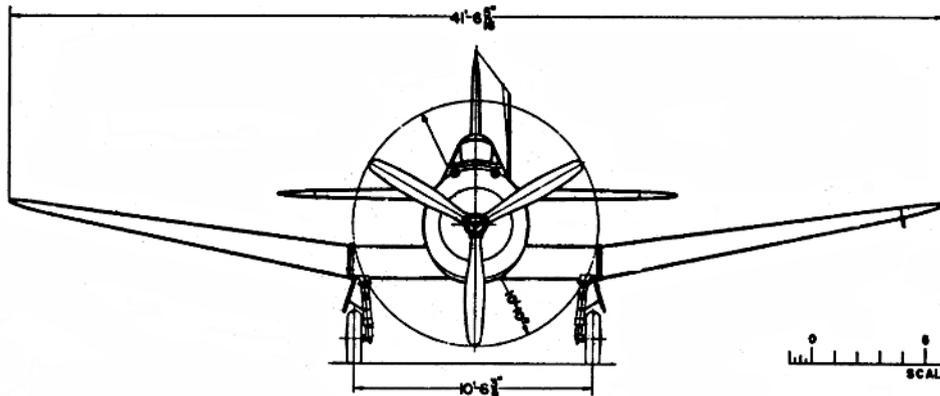
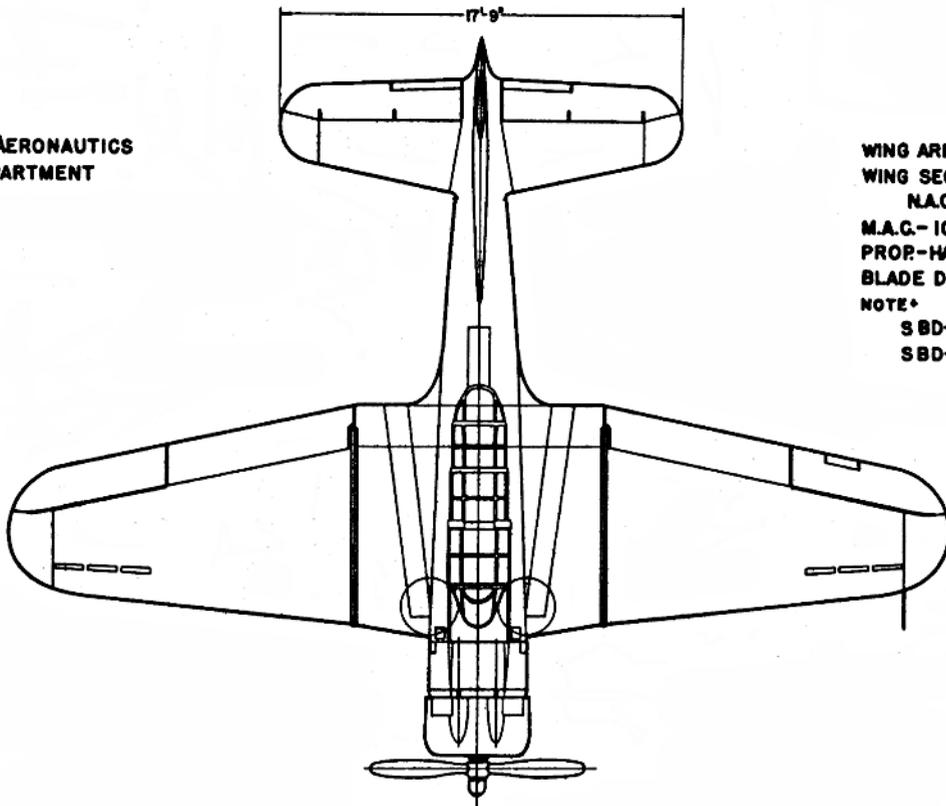
For Ferry Condition at gross weight of 9340# with 370 gals. fuel, max. range is 1680 Statute miles at 143 statute m.p.h. at 1500 ft. altitude.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA-325 SQ. FT.
WING SECTION-
NACA 2415-2407
M.A.C.-100.4"
PROP-HAMILTON STD.C.S.
BLADE DES. NO.65HA-9
NOTE*
SBD-5 (R-1820-60)
SBD-6 (R-1820-66)



MODEL SBD-5B-6

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

-  BULLET RESISTANT GLASS ARMOR PLATE
-  DEFLECTION PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS

PROTECTION

- | | |
|-----------------------|---------|
| 1. PILOT REAR | 99 LBS |
| 2. PILOT FORWARD | 26 LBS |
| 3. GUNNER | 43 LBS |
| 4. SELF-SEALING CELLS | 496 LBS |

