

ISSUE OF 6 PAGES
AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT *	COMBAT *	BOMBER 1-1000#	BOMBER 1-500# Two Tanks External
GROSS WEIGHT	LBS.	9608	9608	10608	10882
EMPTY WEIGHT -ACTUAL-	LBS.	6554			
FUEL/OIL	GALS.	284/16	284/16	284/16	400/16
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.	29.7	29.7	32.8	33.6
POWER LOADING ①	LBS./BHP.	9.6	10.7	11.8	12.1
V-MAX. SEA LEVEL	MPH.	247	241	232	218
V-MAX./CRITICAL ALT.	MPH./FT.	262/15600	255/18600	244/18500	228/18300
V-STALL GROSS WEIGHT ②	MPH.	75.4	75.4	79.2	80.2
V-STALL WITHOUT FUEL ②	MPH.	68.3	68.3	72.5	70.8
TIME-TO-CLIMB -10000FT-	MIN.	6.9	7.4	9.0	9.7
TIME-TO-CLIMB -20000FT-	MIN.	16.7	18.1	23.0	25.7
SERVICE CEILING	FT.	28600	28600	26600	25500
TAKE-OFF DISTANCE -CALM-	FT.	876	876	1181	1248
TAKE-OFF DISTANCE -15 KN-	FT.	552	552	766	812
TAKE-OFF DISTANCE -25 KN-	FT.	375	375	534	568
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	1710	1540	1310	1230
MAX. RANGE / V-AV. ③	ST. MI. / MPH.		1380/144	1230/143	1600/133
RANGE / V-AV. -60%NSP-③-	ST. MI. / MPH.				
SEARCH RADIUS / V-AV. -20%R-	NMI. / KN.				
A.S.W. RADIUS / V-AV. -20%R-	NMI. / KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS B-1	N MI.		285	255	395
ENGINE / PROP GEAR RATIO		W.A.C. R-1820-66 (3:2)			
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE-OFF	
	1300/2600/S.L.-1600'	1200/2500/S.L.-2700'		1350/2700/S.L.	
	1000/2600/9000-14800'	900/2500/11000-17500'			
	See page 3 for rammed flight test ratings.				

TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT
AUX. FIXED	PROTECTED	16	284	FUSELAGE (external) Bombs-1-1600#, 1-1000#, 1-500#, 1-250#, 1-100#. Depth bombs-1-650#, 1-325#. WINGS (external) Bombs-2-250#, 6-100#. Depth bombs-2-325#. Gun packages-2 Douglas gun containers with total of 4-.50 cal./1360 rds.
	UNPROTECTED			
	TOTAL - FIXED INTERNAL	16	284	
	DROPPABLE			
	DROPPABLE -wings-2058		116	
	TOTAL	16	400	
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS			
	① BHP AT MAX. CRIT. ALT.			
	② STALL -WITHOUT POWER			
	③ AT 1500' ALTITUDE			* See note page 2.

Supersedes 1 April 1944

DATE 1 OCTOBER 1945

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MODEL SBD-6

NVAER-15198 (Rev. 9-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5	6	7
LOADING CONDITION		SCOUT Two Tanks External	ROCKET 8-5" HVAR plus 1-1000# Bomb	FERRY Two Tanks External
GROSS WEIGHT	LBS.	10382	11770	9643
EMPTY WEIGHT	-ACTUAL- LBS.	6554		6394
FUEL/OIL	GALS.	400/16	284/16	400/16
FIXED GUNS/AMMUNITION		2-.50 cal./360 rds.		NONE
FLEXIBLE GUNS/AMMUNITION		2-.30 cal./2000 rds.		NONE
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	32.0	36.4	
POWER LOADING ①	LBS./BHP	11.5	13.1	
V-MAX. SEA LEVEL	MPH.	222	221	
V-MAX./CRITICAL ALT.	MPH./ FT.	233/18300	228/18300	
V-STALL. GROSS WEIGHT ②	MPH.	78.3	83.4	
V-STALL. WITHOUT FUEL ②	MPH.	68.7	77.1	
TIME-TO-CLIMB -10000FT.-	MIN.	8.7	11.2	
TIME-TO-CLIMB -20000FT.-	MIN.	22.3	31.6	
SERVICE CEILING	FT.	26600	24000	
TAKE-OFF DISTANCE -CALM-	FT.	1078	1833	
TAKE-OFF DISTANCE -15 KN.-	FT.	694	1228	
TAKE-OFF DISTANCE -25KN.-	FT.	481	889	
TAKE-OFF DISTANCE -50 FT. OBST.	FT.			
TAKE-OFF DISTANCE	SECONDS			
RATE OF CLIMB -SL-	FT./ MIN.	1330	1070	
MAX. RANGE / V-AV. ③	ST. MI./ MPH.	1700/133	1035/136	1070/141
RANGE / V-AV. -60%NSP-③-	ST. MI./ MPH.			
SEARCH RADIUS/V-AV. -20%R-	NMI./ KN.			
A. S. W. RADIUS/V-AV. -20%R-	NMI./ KN.			
SCOUT RADIUS	NMI.	445		
COMBAT RADIUS B-1	NMI.		230	

PERFORMANCE IS BASED ON - FLIGHT TEST SBD-6

RANGE & RADIUS ARE BASED ON FLIGHT TEST SBD-6

FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

* COMBAT CONDITION: ASB radar, two wing bomb-racks and sway bracing; fuselage bomb-rack and sway bracing, and displacing gear aboard; Bombs and rocket launchers not aboard; enclosures in the closed position. Addition of 8 MK5-1 rocket launchers reduces V-max to 259 mph at 15600 feet.

CLEAN CONDITION : Combat condition with radar, bomb-racks and displacing gear removed. v_{max}/SL 257 mph; $v_{max} = 273$ mph/15600 feet.

ROCKET CONDITION: 140# HVAR rockets are suspended from MK5-1 launchers.

FERRY CONDITION : Armor, armament and radar removed.

NOTE:(1) ASB radar in all conditions except "CLEAN" and "FERRY"

(2) Two MK51-7 wing bomb-racks, One MK51-7 fuselage bomb-rack plus displacing gear and sway bracing in all conditions except "CLEAN".

(3) Rocket launchers carried in Rocket condition only.

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

BOMBER COMBAT RADIUS FORMULA NO. B-1-CONDITIONS NOS. - 2, 3, 4 & 5 RADIUS = CLIMB + CRUISE-OUT + CRUISE BACK

WARM-UP	RENDEZVOUS	CLIMB	CRUISE OUT	DROP TANKS	COMBAT	CRUISE BACK	RESERVE
20 min.	20 min. at sea level	to 15000 ft.	at 15000 ft.	DESCEND to 1500 ft.	15 min. at 1500 ft.	at 1500 ft.	60 min. at
TAKE-OFF 1 min.	at 60% N.S.P.	at 60% N.S.P.	180 kts.TAS	DROP BOMBS FIRE ROCKETS	5 min. WEP. 10 min. Nor.Pr.	170 kts.TAS	Vel. for Max. Range
	Auto Lean.	Auto Rich.	Auto Lean.			Auto Lean.	Auto Lean.

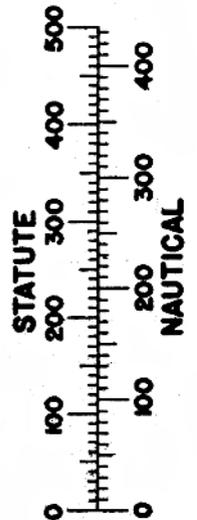
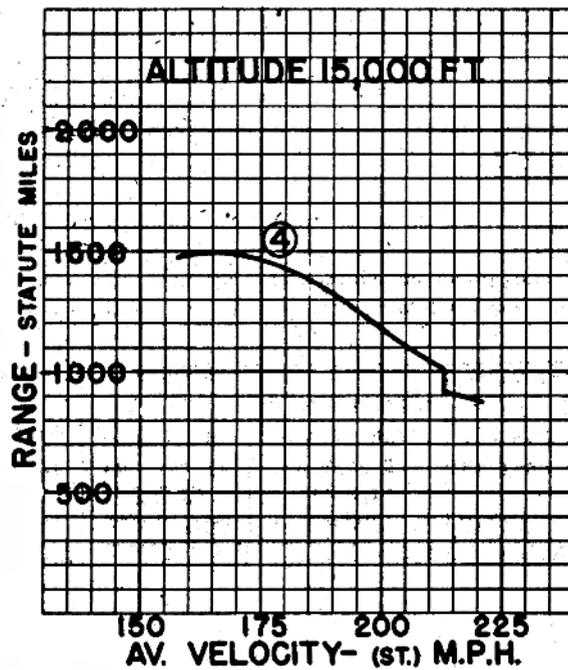
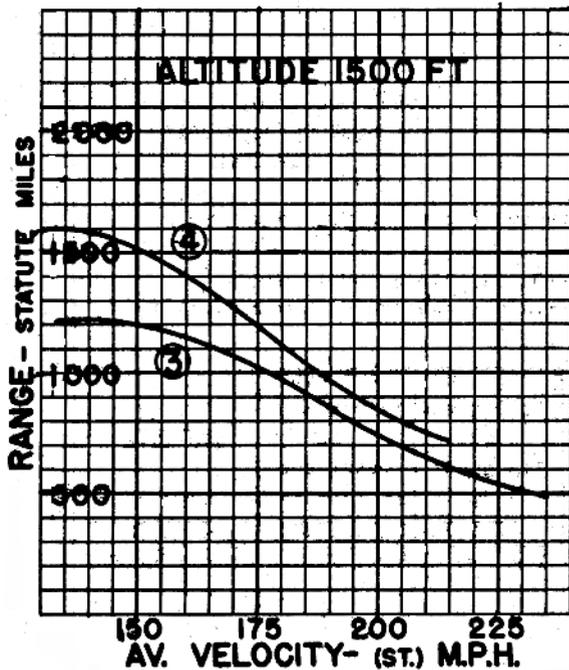
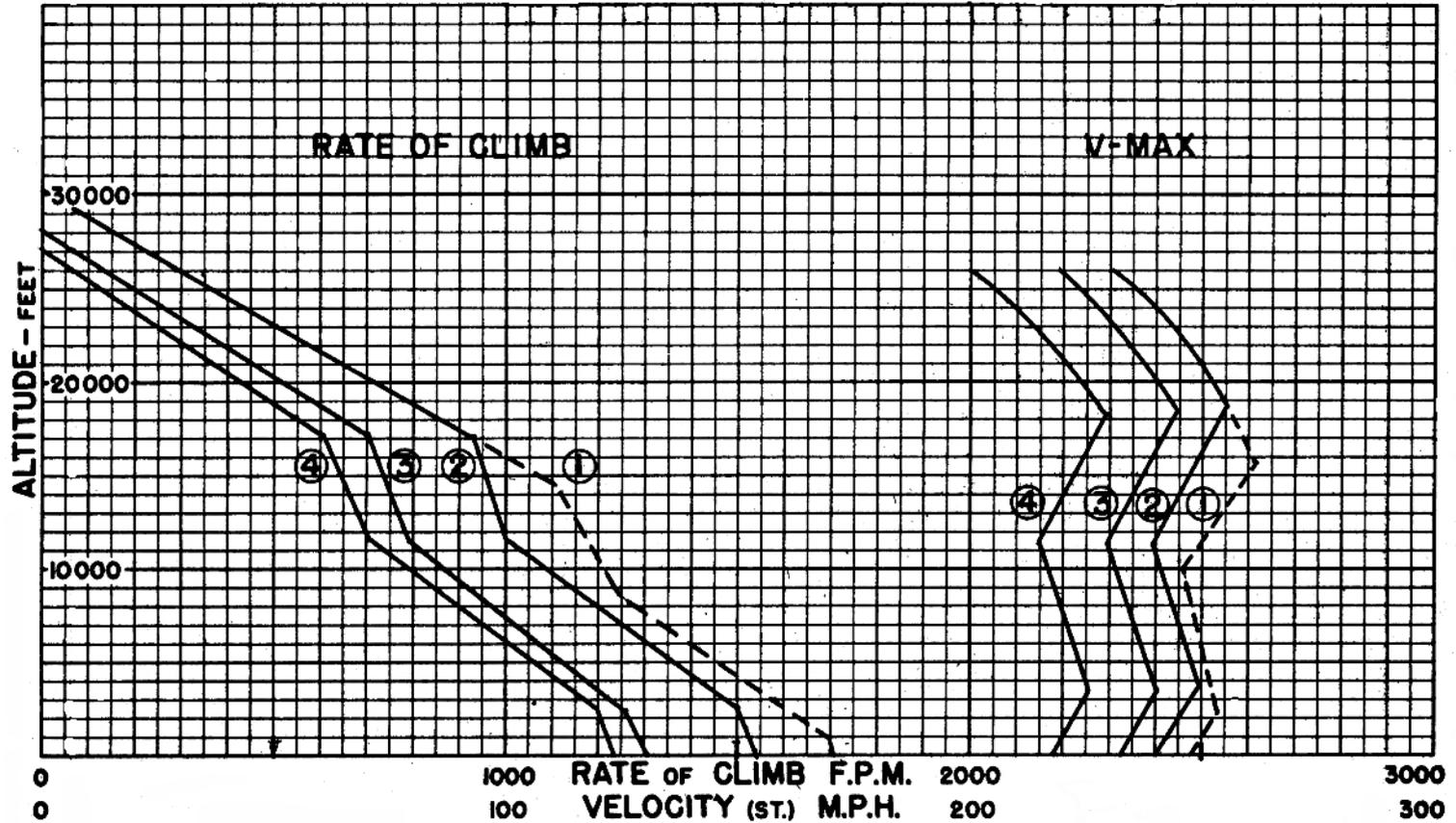
NOTE: (1) Engine ratings are AEL ratings. These ratings do not conform to engine data obtained from SBD-6 flight test. The flight test data are used in performance calculations.

(2) Rammed engine ratings obtained from SED-6 Flight Test:

MILITARY
1300/2600/SL-2400
1000/2600/10000-15600

NORMAL
1200/2500/SL-3800
900/2500/11400-18700

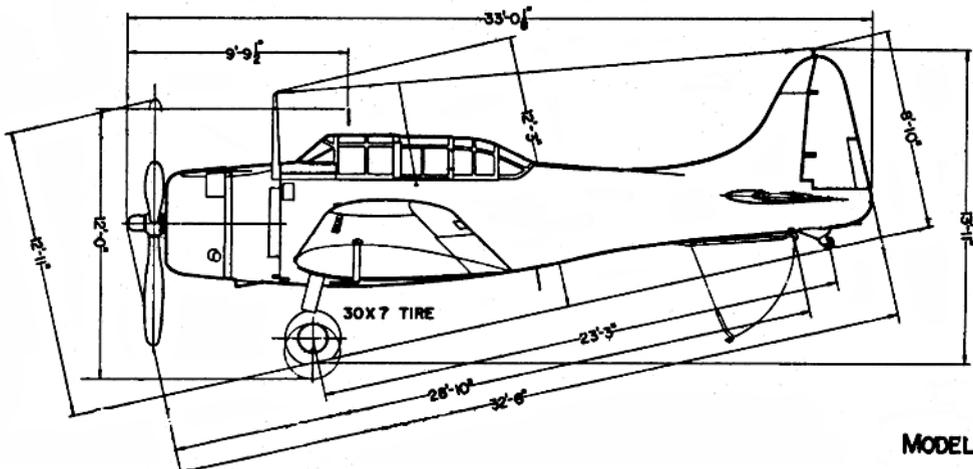
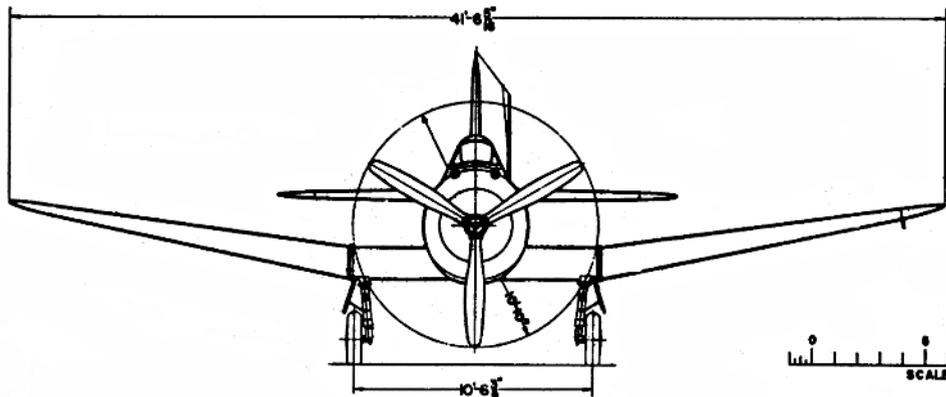
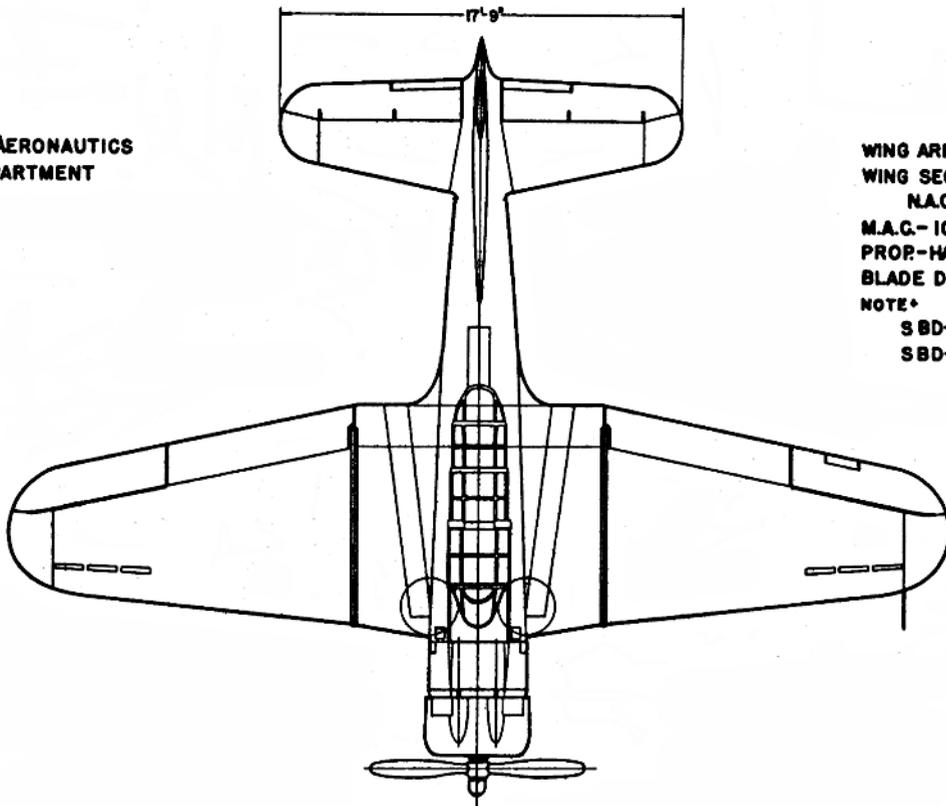
TAKE-OFF
1350/2700/SL



○ 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-58-6

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 |

