

NAVAER ~~FORM~~ OF 6 PAGES  
 AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		BOMBER 1-500#	BOMBER 1-1000#	BOMBER 1-1000#	BOMBER 1-1000# Two Tanks External
GROSS WEIGHT	LBS.	13504	14720	14720	15583
EMPTY WEIGHT (Actual)	LBS.	10114			
FUEL/OIL	GALS.	210/12	320/18	320/18	436/25
FIXED GUNS/AMMUNITION		2-20MM/400 rds.			
FLEXIBLE GUNS/AMMUNITION		2-.30/2000			
ENGINE POWER USED FOR PERFORMANCE		NORMAL	MILITARY	NORMAL	NORMAL
WING LOADING	LBS/SQ.FT.	32.0	34.9	34.9	36.9
POWER LOADING ①	LBS/BHP.	10.0	10.2	10.9	11.6
V-MAX. SEA LEVEL	MPH.	253	265	252	239
V-MAX. AIRPLANE CRIT. ALT.	MPH.	278/13400	281/12400	275/13400	260/13400
V-STALL. GROSS WEIGHT. ②	MPH.	75.4	78.7	78.7	81.0
V-STALL. WITHOUT FUEL ②	MPH.	71.8	73.4	73.4	73.9
TIME-TO-CLIMB -10000FT.-	MIN.	7.1	7.7	8.3	9.7
TIME-TO-CLIMB -20000FT.-	MIN.	20.4	22.9	25.8	32.9
SERVICE CEILING	FT.	25900	24700	24200	22600
TAKE-OFF DISTANCE -CALM-	FT.	905	1146	1146	1398
TAKE-OFF DISTANCE -15 KN-	FT.	561	728	728	895
TAKE-OFF DISTANCE -25 KN-	FT.	376	500	500	629
RATE OF CLIMB -S.L.-	FT/MIN.	1650	1750	1440	1270
MAX. RANGE /V-AV. ③	ST.MI/MPH.	750/155		1110/158	1430/153
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.				
COMBAT RADIUS	NMI.	100		240	375
ENGINE /PROP GEAR RATIO		W.A.C. R-2600-8 (16:9)			
ENGINE RATING BHP/RPM/ALT.		NORMAL		MILITARY	
		1500/2400/S.L.-5800		1700/2600/S.L.-3000	
		1350/2400/8900-13000		1450/2600/7800-12000	
		1700/2600/Take-off			
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 FT. ALTITUDE				

TANKAGE IN GALLONS		OIL FUEL		OFFENSIVE ARMAMENT
FIXED	PROTECTED	25	320	FUSELAGE BOMB-BAY:
	UNPROTECTED			Bombs : 1-1600#, 2-1000# (A.P.)
	TOTAL-INCL. PROT.	25	320	1-1000# or 2-500#
	INCREASE-REMOVED PROTECTION	Fixed		Torpedoes: 1 MK 13-2 or -1 **
AUX.				Depth Bombs: 1-650# or 2-325#
	DROPPABLE -Bomb-bay-Intern.-		130	WING BOMB RACKS:
	DROPPABLE -Wings - 2 @ 58		116	Bombs : 2-100#
	PROTECTED+UNPROTECTED+DROPPABLE.	25	566	Depth Bombs: 2-325#

REMARKS- \* Installation of 4-.50/1600 Fixed Guns in lieu of 2-20MM/800 increases gross weight 228#.

\*\* To load torpedo, bomb-bay doors must be removed and a torpedo supporting truss installed in bomb-bay.

SUPERSEDES 12/5/42

ALSO SBF-1 &amp; SBW-1

DATE - 1 SEPT 1943 American Aviation Historical Society Archives - www.aahs-online.org

MODEL-SB2C-1

**MODEL-SB2C-1****AIRPLANE CHARACTERISTICS & PERFORMANCE**

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	5	6	7	8
LOADING CONDITION	BOMBER 2-1000#	BOMBER 2-1000# Two Tanks External	TORPEDO 1 MK 13-2	TORPEDO 1 MK 13-2 Two Tanks External
GROSS WEIGHT LBS.	15744	16607	15949	16812
EMPTY WEIGHT (Actual) LBS.	10114		10072	
FUEL/OIL GALS.	320/18	436/25	320/18	436/25
FIXED GUNS/AMMUNITION	2-20MM/400 rds.			
FLEXIBLE GUNS/AMMUNITION	2-.30/2000 rds.			
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING LBS/SQ.FT.	37.3	39.4	37.8	39.8
POWER LOADING ① LBS/BHP.	11.8	12.3	11.8	12.5
V-MAX. SEA LEVEL MPH.	250	238	236	224
V-MAX. AIRPLANE CRIT. ALT. MPH.	273/13400	258/13400	256/13400	242/13400
V-STALL. GROSS WEIGHT. ② MPH.	81.4	83.6	81.9	84.1
V-STALL. WITHOUT FUEL ② MPH.	76.3	76.7	76.8	77.3
TIME-TO-CLIMB -10000FT.- MIN.	9.7	11.4	10.3	12.9
TIME-TO-CLIMB -20000FT.- MIN.	32.6	42.9	36.6	
SERVICE CEILING FT.	22800	21200	22000	19900
TAKE-OFF DISTANCE -CALM- FT.	1374	1672	1500	1850
TAKE-OFF DISTANCE -15 KN- FT.	887	1093	972	1215
TAKE-OFF DISTANCE -25 KN- FT.	620	774	682	860
RATE OF CLIMB -S.L.- FT/MIN.	1270	1120	1210	1040
MAX. RANGE/V-AV. ③ ST.MI/MPH.	1075/162	1375/157	1000/153	1255/145
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.				
COMBAT RADIUS NMI.	235	365	220	345

**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; 10 min. rendezvous at 60% normal sea-level power (n.s.p.) and auto-rich; climb to 15000' at 60% n.s.p. and auto-lean unless auto-rich is required for cooling; cruise-out at 15000' at 60% n.s.p. and required mixture; dive, drop bombs, torpedoes, and external tanks; combat at 1500' for 5 min. with full military power plus 10 min. with full normal power; cruise-back at 1500' at 60% n.s.p. and auto-lean; 60 min. rendezvous, landing and reserve at V for max. range and auto-lean. Radius includes distance covered in climb, but not in dive.

Practical Scouting Radius is 1/3 of range at V for max. range at 1500' with fuel taken out for 20 min. warm-up and idle, 1 min. take-off and 60 min. for rendezvous, landing and reserve.

The following changes are incorporated:- Contract - thru CJ; Service - thru #10; Pending - Installation of twin .30 cal. flexible guns in lieu of single .50 cal. turret.

In the ferry condition at G.W. = 14369# and with 566 gals. fuel, max. range is 1975 st. miles at 150 st. mph and 1500 ft.

## AIRPLANE CHARACTERISTICS &amp; PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	9	10	11	12
LOADING CONDITION	SCOUT	SCOUT B.B.TANK	SCOUT 2-325# * B.B.TANK	SCOUT **
GROSS WEIGHT LBS.	13674	14609	15294	15419
EMPTY WEIGHT (Actual) LBS.	10114			
FUEL/OIL GAL.	320/18	450/25	450/25	566/25
FIXED GUNS / AMMUNITION	2-20MM/400			
FLEXIBLE GUNS / AMMUNITION	2-.30/2000			
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING LBS/SQ.FT.	32.4	34.6	36.2	36.6
POWER LOADING ① LBS/BHP.	10.1	10.8	11.3	11.4
V-MAX. SEA LEVEL MPH.	253	252	237	239
V-MAX. AIRPLANE CRIT. ALT. MPH.	277/13400	276/13400	258/13400	261/13400
V-STALL. GROSS WEIGHT. ② MPH.	75.8	78.4	80.2	80.5
V-STALL. WITHOUT FUEL ② MPH.	70.3	70.8	72.8	71.2
TIME-TO-CLIMB -10000FT.- MIN.	7.2	8.2	9.3	9.4
TIME-TO-CLIMB -20000FT.- MIN.	20.9	25.2	30.9	31.7
SERVICE CEILING FT.	25600	24300	22900	22800
TAKE-OFF DISTANCE -CALM- FT.	935	1120	1336	1351
TAKE-OFF DISTANCE -15 KN- FT.	581	710	855	865
TAKE-OFF DISTANCE -25 KN- FT.	391	486	593	605
RATE OF CLIMB - S.L. - FT/MIN.	1620	1460	1310	1300
MAX. RANGE / V-AV. ③ ST. MI / MPH.	1150/154	1590/156	1470/149	1895/151
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.	280	405	370	495
COMBAT RADIUS NMI.				
ENGINE / PROP. GEAR RATIO				
ENGINE RATING BHP/RPM/ALT.		NORMAL		MILITARY
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS.			
	① BHP AT MAX. CRIT. ALT. ② STALL-WITHOUT POWER ③ AT ALTITUDE			

	TANKAGE IN GALLONS	OIL	FUEL	OFFENSIVE ARMAMENT
FIXED	PROTECTED			
	UNPROTECTED			
	TOTAL-INCL. PROT.			
	INCREASE-REMOVED PROTECTION			
AUX.				
	DROPPABLE			
	DROPPABLE			
	PROTECTED+UNPROTECTED+DROPPABLE.			

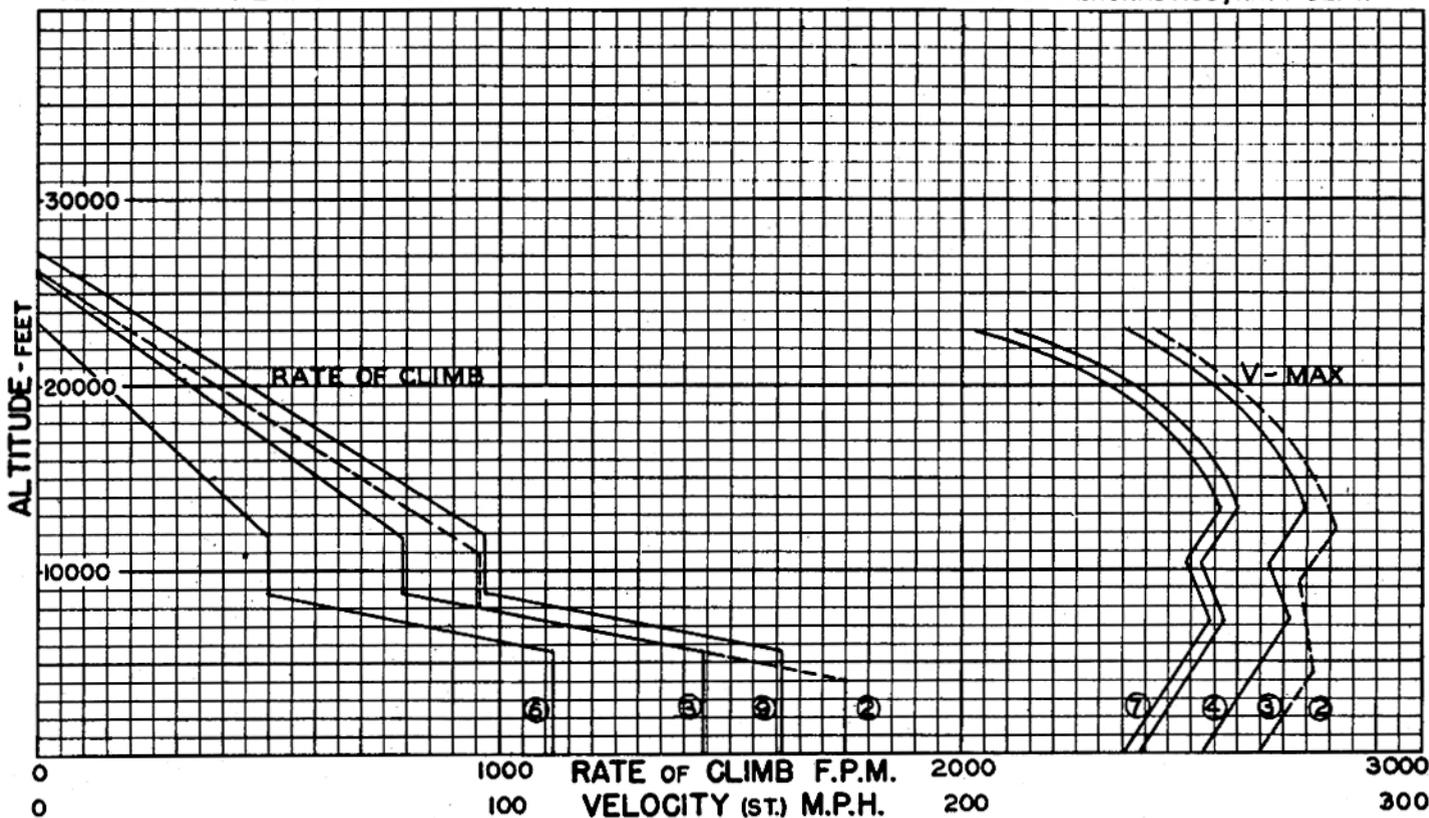
REMARKS- \* Depth Bombs on Wing are external.

\*\* With 2 Wing droppable and Bomb Bay droppable tanks.

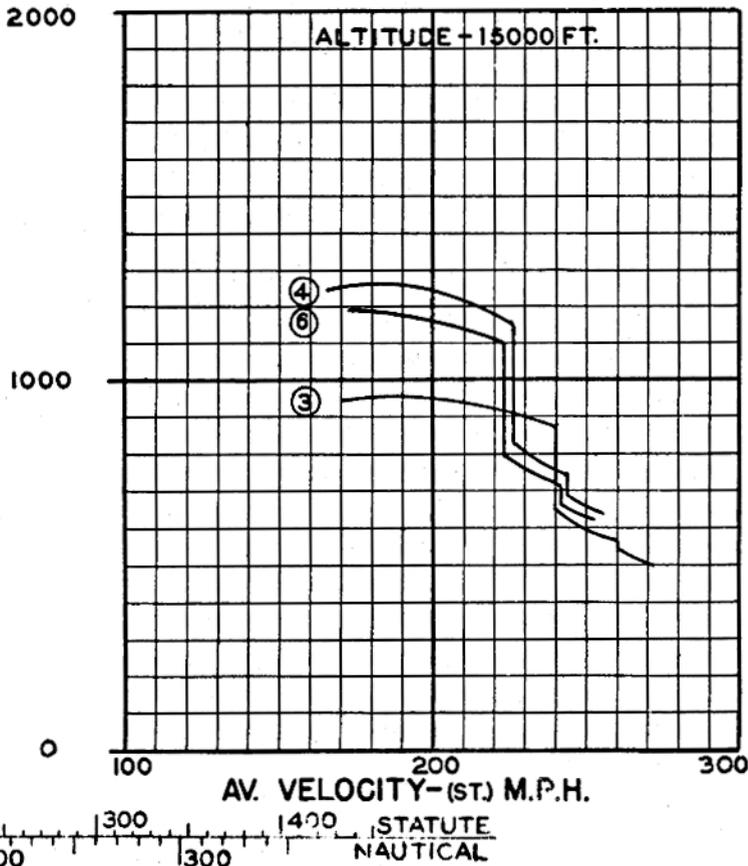
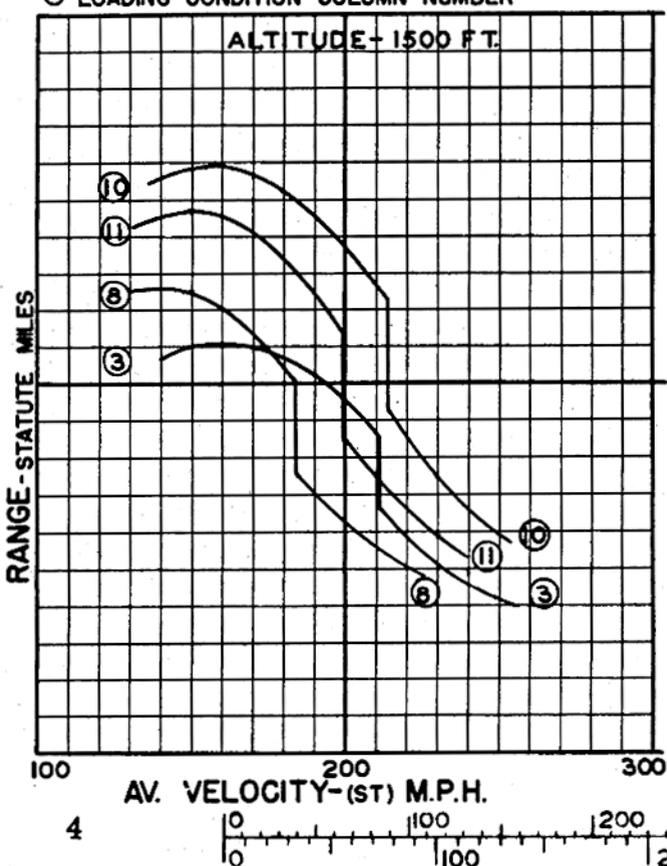
AIRPLANE PERFORMANCE

NAVAER

BUREAU OF AERONAUTICS, NAVY DEPT.

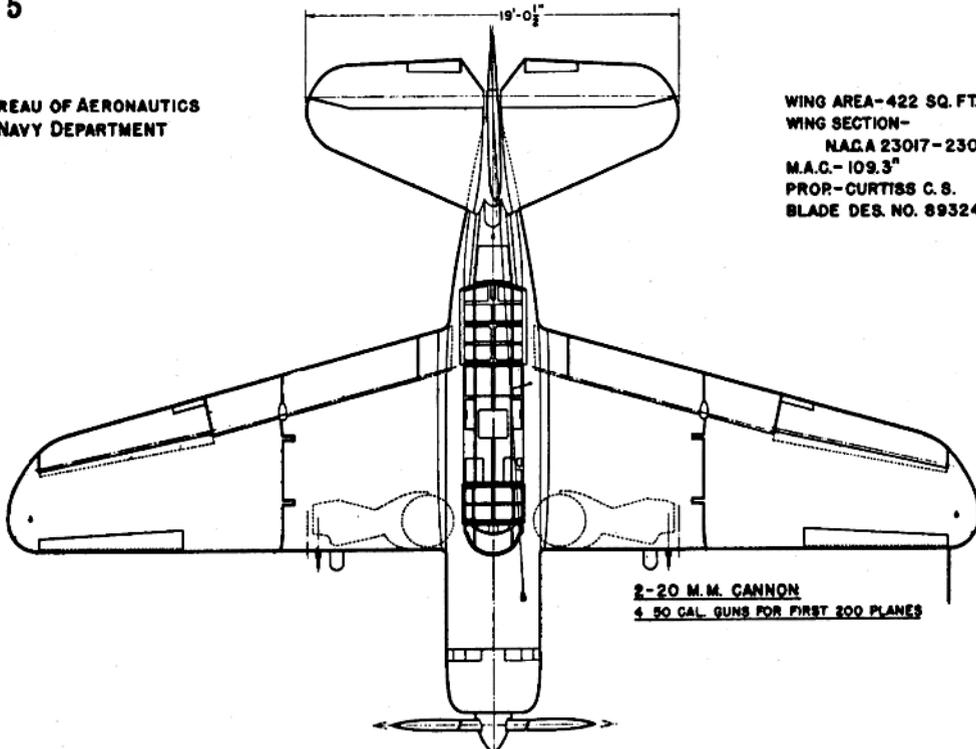


○ LOADING CONDITION COLUMN NUMBER

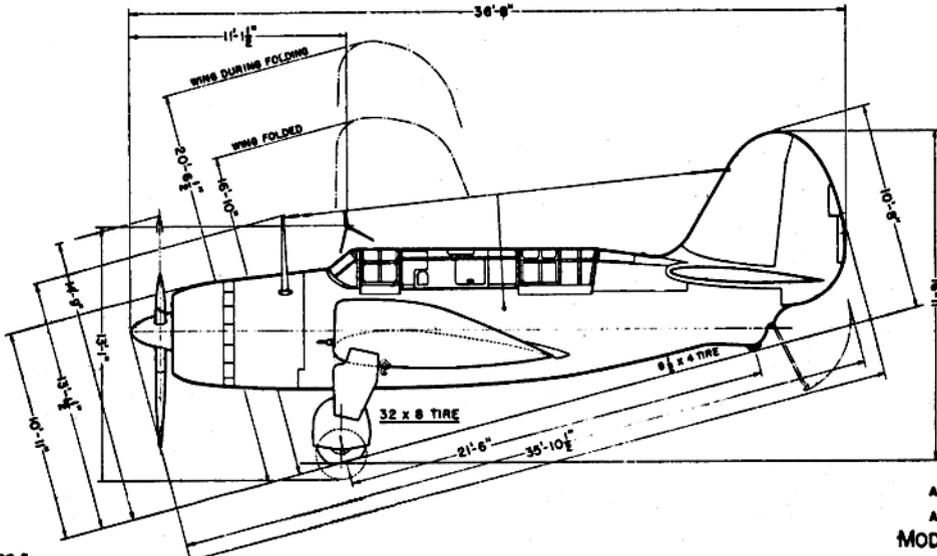
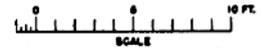
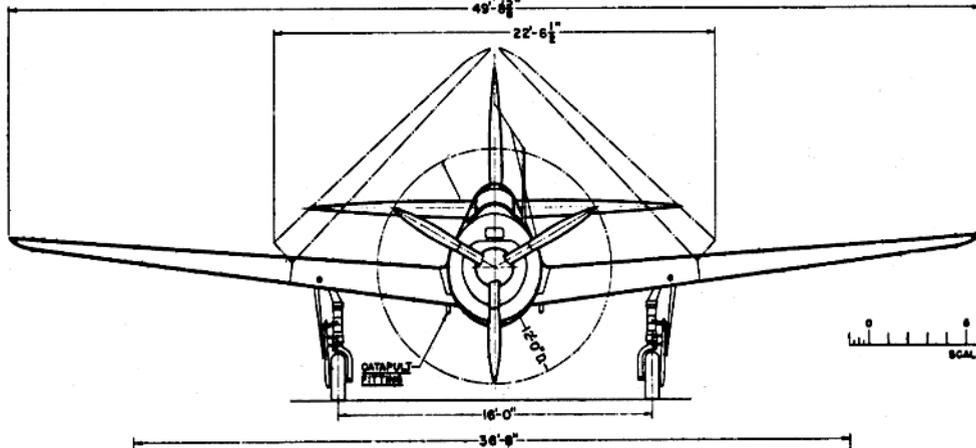


BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

WING AREA-422 SQ. FT.  
WING SECTION-  
NACA 23017-23009  
M.A.C.-109.3"  
PROP-CURTISS C. S.  
BLADE DES. NO. 89324



2-20 M.M. CANNON  
4 50 CAL. GUNS FOR FIRST 300 PLANES



ALSO SBF-1  
ALSO SBW-1  
MODEL SB2C-1

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

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

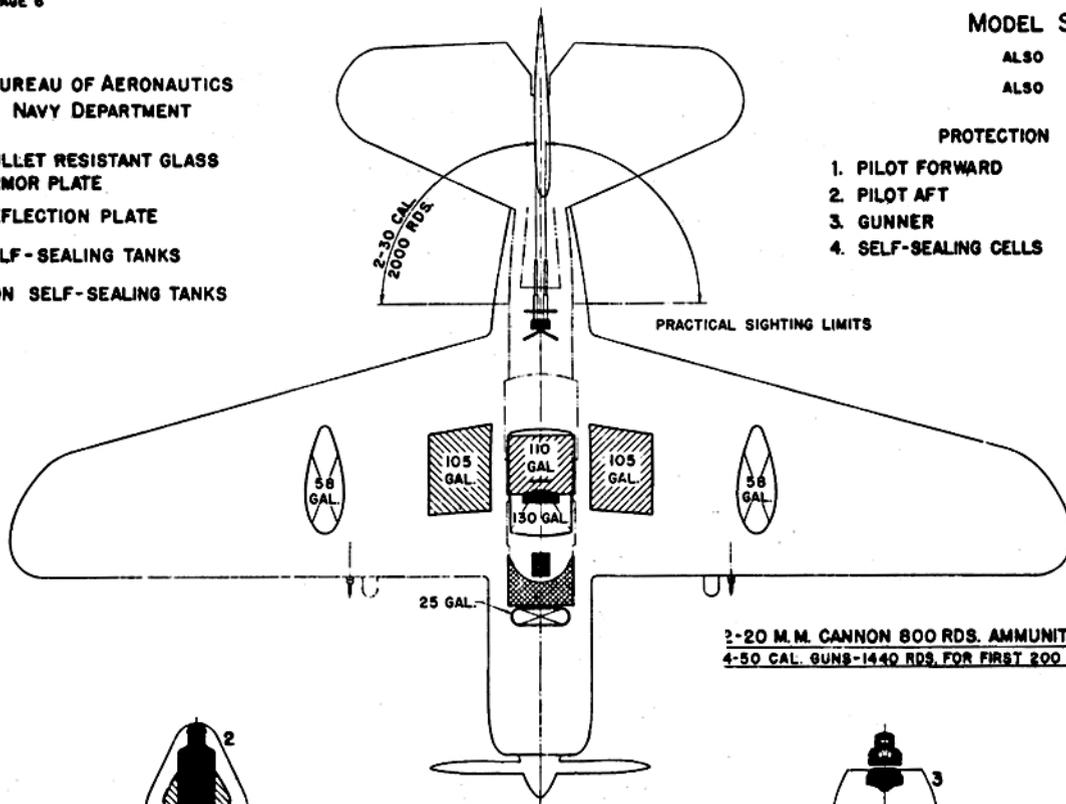
MODEL SB2C-1

ALSO SBW-1

ALSO SBF-1

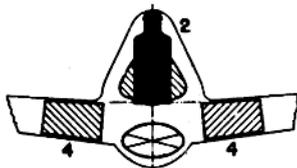
PROTECTION

- |                       |          |
|-----------------------|----------|
| 1. PILOT FORWARD      | 84 LBS.  |
| 2. PILOT AFT          | 81 LBS.  |
| 3. GUNNER             | 30 LBS.  |
| 4. SELF-SEALING CELLS | 365 LBS. |

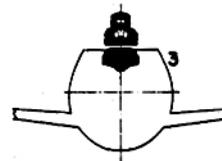


PRACTICAL SIGHTING LIMITS

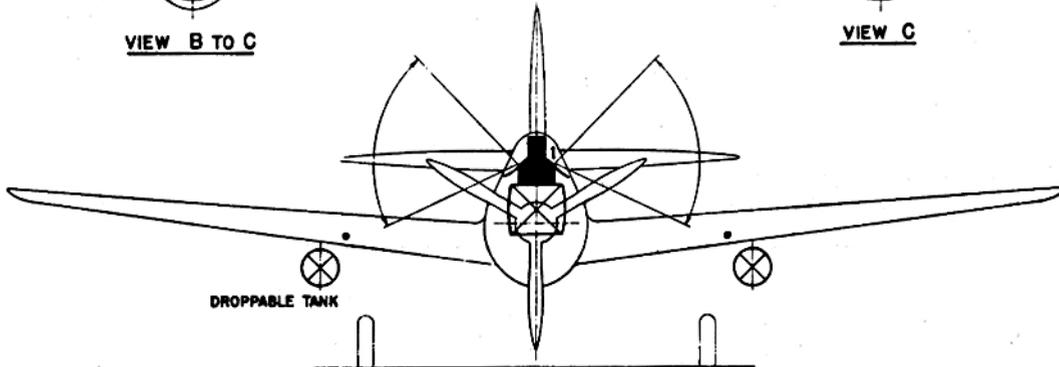
2-20 M.M. CANNON 800 RDS. AMMUNITION  
4-50 CAL. GUNS-1440 RDS. FOR FIRST 200 PLANES



VIEW B TO C



VIEW C



VIEW A TO B

