

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

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-I & SBW-I

DATE- 1 SEPT 1943

PAGE 1

CONFIDENTIAL

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 &amp; 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.

CONFIDENTIAL

PAGE 2

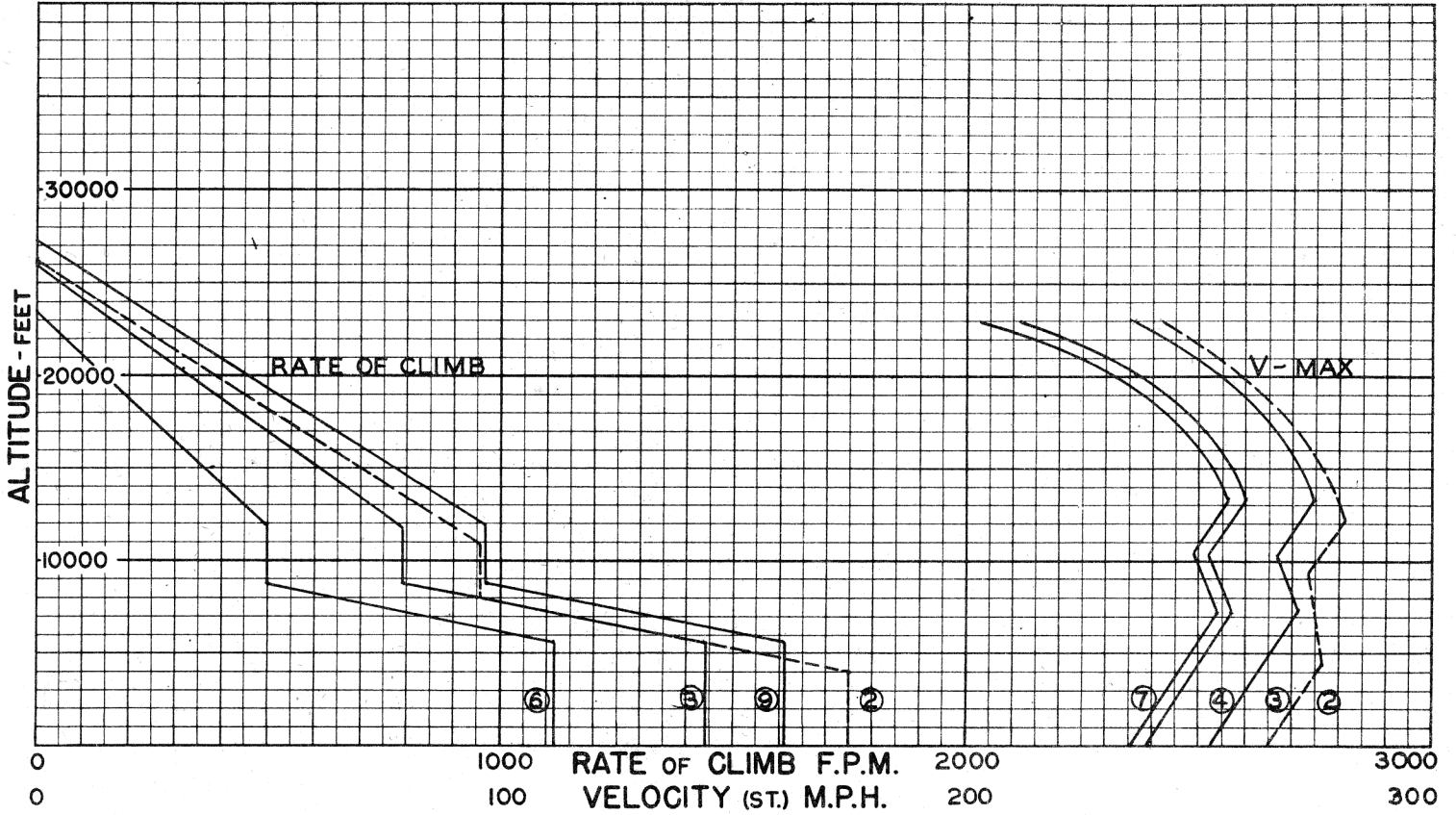
AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

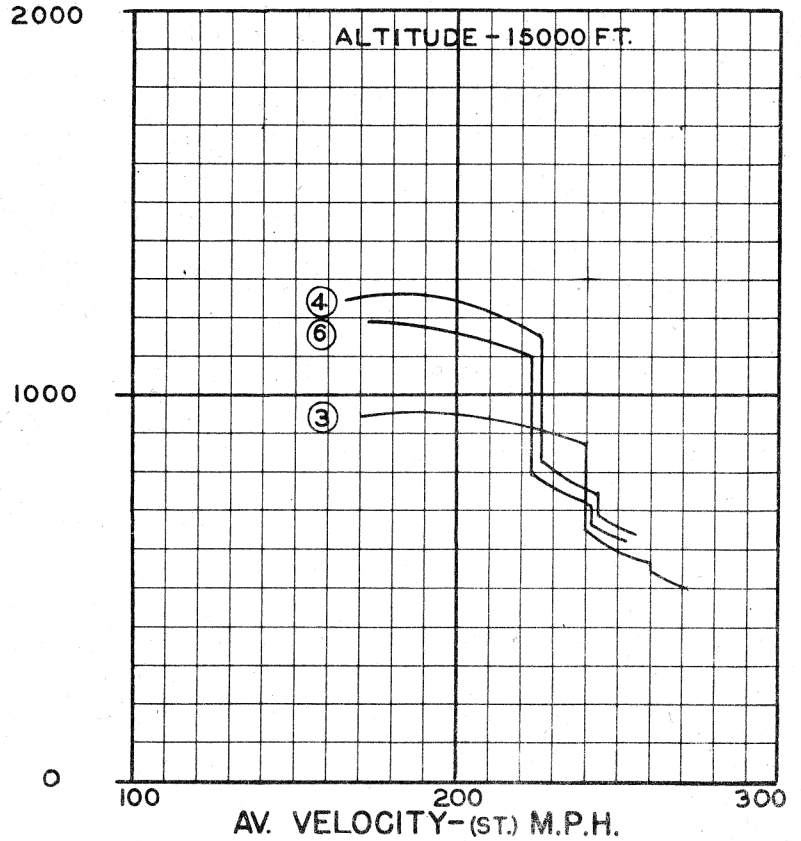
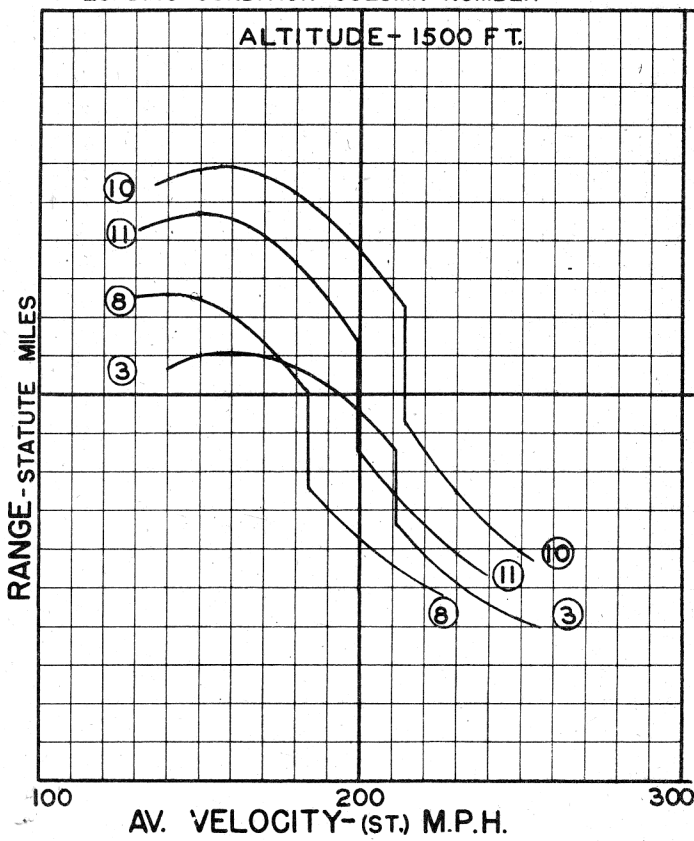
COLUMN NUMBER		9	10	11	12
LOADING CONDITION		SCOUT	SCOUT	SCOUT 2-325# *	SCOUT **
			B.B.TANK	B.B.TANK	
GROSS WEIGHT	LBS.	13674	14609	15294	15419
EMPTY WEIGHT (Actual)	LBS.	10114			
FUEL/OIL	GALS.	320/18	450/25	450/25	566/25
FIXED GUNS / AMMUNITION		2-20MM/400			
FLEXIBLE GUNS / AMMUNITION		2-.30/2000			
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.



○ LOADING CONDITION COLUMN NUMBER



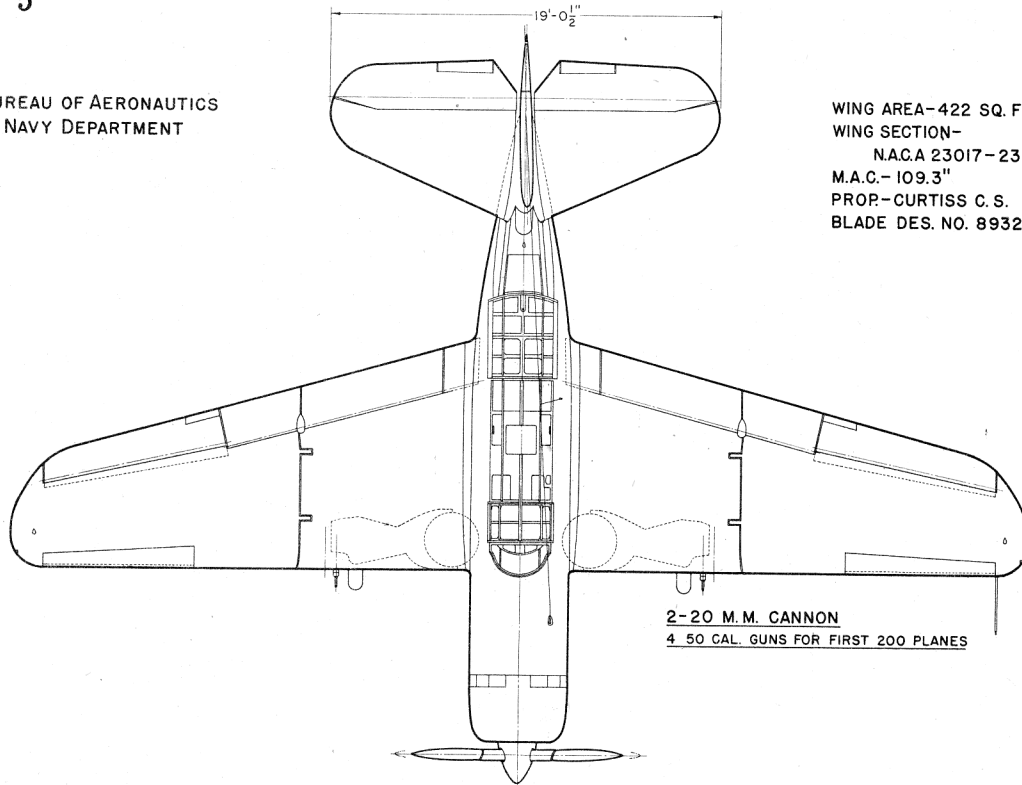
4 0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000

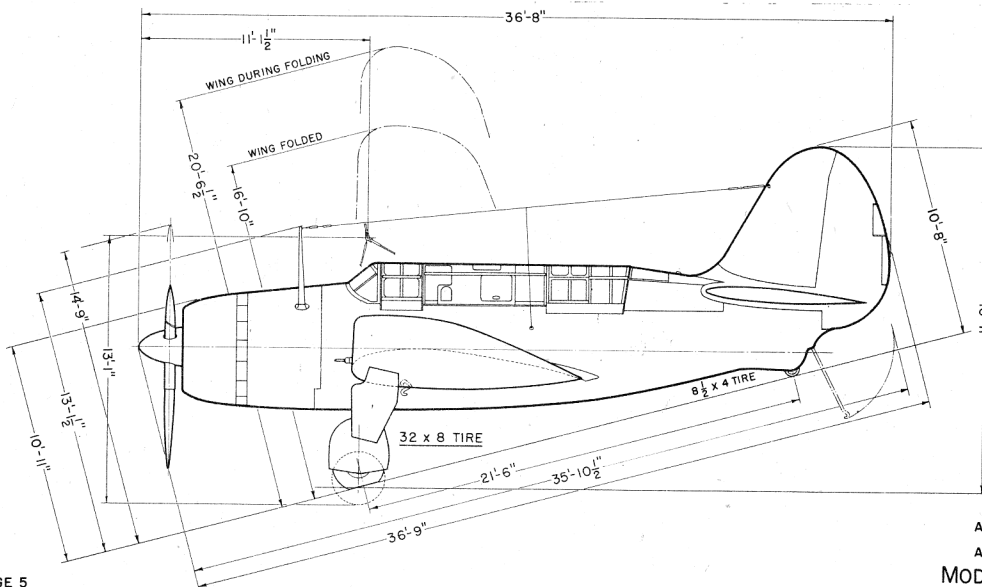
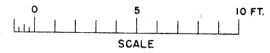
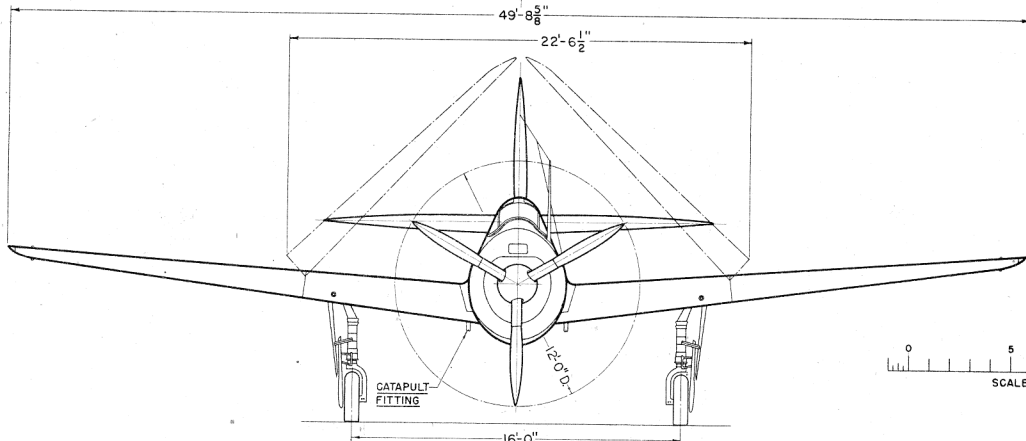
STATUTE NAUTICAL

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

WING AREA-422 SQ. FT.  
WING SECTION-  
N.A.C.A 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 200 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

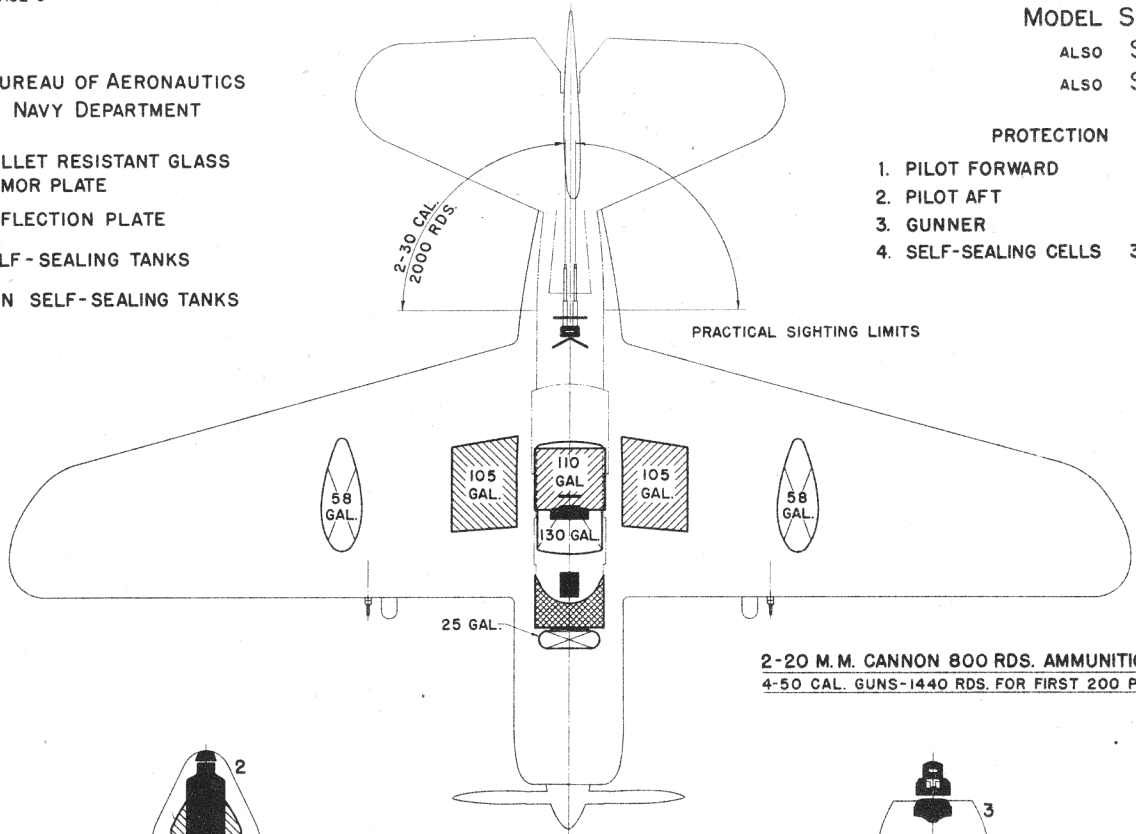
MODEL SB2C-1

ALSO SBW-1

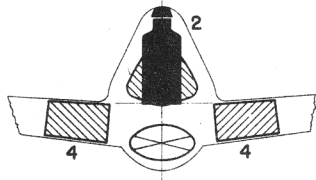
ALSO SBF-1

PROTECTION

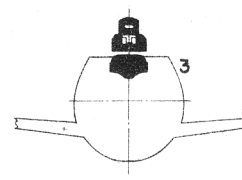
- 1. PILOT FORWARD 84 LBS.
- 2. PILOT AFT 81 LBS.
- 3. GUNNER 30 LBS.
- 4. SELF-SEALING CELLS 365 LBS.



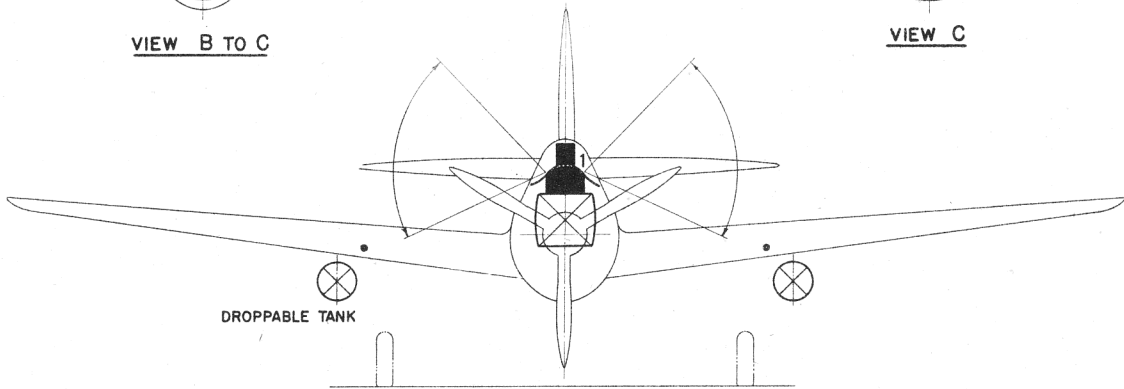
2-20 M. M. CANNON 800 RDS. AMMUNITION  
4-50 CAL. GUNS-1440 RDS. FOR FIRST 200 PLANES



VIEW B TO C



VIEW C



VIEW A TO B

