

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT *	COMBAT *	BOMBER 1-1000#	BOMBER 1-1000# Two Tanks External
GROSS WEIGHT	LBS.	14189	14189	15189	16018
EMPTY WEIGHT - Calculated -	LBS.	10547			
FUEL / OIL	GALS.	320/18	320/18	320/18	436/25
FIXED GUNS/AMMUNITION		2-.20 mm/400 rds.			
FLEXIBLE GUNS/AMMUNITION		2-.30 cal./2000 rds.			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	33.6	33.6	35.9	38.0
POWER LOADING ①	LBS./BHP.	9.8	10.5	11.3	11.9
V-MAX. SEA LEVEL	MPH.	270	262	261	247
V-MAX./CRITICAL ALT.	MPH./FT.	295/16700	287/16400	285/16400	268/16200
V-STALL GROSS WEIGHT ②	MPH.	83.6	83.6	86.6	88.9
V-STALL WITHOUT FUEL ②	MPH.	77.8	77.8	80.8	81.3
TIME-TO-CLIMB -10000FT-	MIN.	6.5	6.9	7.8	8.9
TIME-TO-CLIMB -20000FT-	MIN.	15.4	17.1	19.8	23.4
SERVICE CEILING	FT.	29100	28200	27000	25600
TAKE-OFF DISTANCE -CALM-	FT.		764	925	1124
TAKE-OFF DISTANCE -15 KN-	FT.		481	596	736
TAKE-OFF DISTANCE -25 KN-	FT.		327	412	523
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	1800	1500	1430	1270
MAX. RANGE / V-AV. ③	ST. MI. / MPH.		1235/158	1165/149	1420/153
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	N MI.			265	375
ENGINE / PROP. GEAR RATIO		W.A.C. R-2600-20(16:9)			
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE-OFF	
	1750/2600/SL-3200	1600/2400/SL-5000'		1900/2800/SL	
	1450/2600/SL-15000	1350/2400/SL-14800'			

TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT
AUX. FIXED	PROTECTED	25	320	FUSelage BOMB-BAY: Bombs: 2-1000# A.P., 1-1600#, 1-1000#, 2-250, 2-500#, 5-100# Depth Bombs: 1-650#, or 2-325# Torpedo : 1 Mk13-3 ** WINGS: - Bombs: 2-500#, 2-250#, 6-100# Depth Bombs: 2-325# ** Torpedo loading requires partial opening of bomb-bay doors and installation of torpedo supporting truss.
	UNPROTECTED			
	TOTAL - FIXED INTERNAL	25	320	
	DROPPABLE -Wings-2 @ 58		116	
DROPPABLE -B.B.-unprot.		130		
TOTAL		25	566	
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

NAYAE-15198 (Rev. 9-44)

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COLUMN NUMBER		5	6	7	8
LOADING CONDITION		BOMBER 1-1600# Two Tanks External	TORPEDO 1 MK13-3	SCOUT One S.B. Tank Plus Two Wing Tanks	ROCKET 1-1000# Plus 8-5" A.R.
GROSS WEIGHT	LBS.	16618	16464	15831	15861
EMPTY WEIGHT - Calculated -	LBS.		10547		10579
FUEL/OIL	GALS.	436/25	320/18	566/25	320/18
FIXED GUNS/AMMUNITION		2-20 m.m./400 rds.			
FLEXIBLE GUNS/AMMUNITION		2-.30 cal./2000 rds.			
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING	LBS/SQ.FT.	39.4	39.0	37.5	37.6
POWER LOADING ①	LBS./BHP	12.3	12.2	11.7	11.7
V-MAX. SEA LEVEL	MPH	246	234	247	250
V-MAX./ CRITICAL ALT.	MPH./ FT.	266/16200	251/16000	268/16200	271/16200
V-STALL GROSS WEIGHT ②	MPH	90.6	90.1	88.4	90.9
V-STALL WITHOUT FUEL ②	MPH	83.1	84.7	78.3	85.2
TIME-TO-CLIMB -10000FT.-	MIN.	9.7	9.8	8.7	8.7
TIME-TO-CLIMB -20000FT.-	MIN.	26.2	26.7	22.7	22.7
SERVICE CEILING	FT.	24800	24400	25700	25800
TAKE-OFF DISTANCE -CALM-	FT.	1286	1291	1082	1146
TAKE-OFF DISTANCE -15 KN-	FT.	844	848	708	756
TAKE-OFF DISTANCE -25KN-	FT.	614	613	498	539
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF DISTANCE	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	1190	1180	1300	1300
MAX. RANGE / V-AV. ③	ST. MI. / MPH	1380/156	965/157	1920/153	1065/165
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.			360	
COMBAT RADIUS	NMI.	360	190		245

PERFORMANCE IS BASED ON - PROTOTYPE FLIGHT TEST

RANGE & RADIUS ARE BASED ON FLIGHT TEST

FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

- * **COMBAT CONDITION:** ASB radar, two wing bomb-racks (MK51-7) aboard; Bombs, sway-bracing, and rocket launchers not aboard; Enclosures in closed position; Installation of 8 MK5-1 launchers reduces V max. to 292 mph. at 16600 ft. (military power)
- CLEAN CONDITION:** Combat condition with ASB radar and bomb-racks removed; V max.-SL-276 mph., V max. = 302/16800 (military Power)
- FERRY CONDITION:** Gross Weight (radar, armor, & armament removed) = 14701 with 566 gals. fuel, max. range at 1500 ft. is 2080 st.mi. at 153 mph.
- ROCKET CONDITION:** Rockets suspended from MK5-1 launchers.
- NOTE:** Two MK51-7 wing bomb-racks in all conditions except "CLEAN"
- ASB radar in all conditions except "CLEAN" & "FERRY"

The following changes are incorporated: Contract - thru DZ

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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 and auto-lean; climb to 15000 ft. at 60% * n.s.p. and auto-lean; cruise-out at 15000 ft. at 180 knots true air speed and auto-lean; drop unprotected droppable tanks; dive; drop bombs or torpedoes; combat at 1500 ft. for 5 min. at full military power plus 10 min. at full normal power; cruise-back at 1500 ft. at 170 knots T.A.S. and auto-lean; 60 min. at V for max. range and auto-lean as allowance for rendezvous landing and reserve. Radius includes distance covered in climb but not in descent.

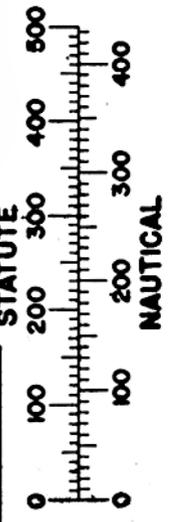
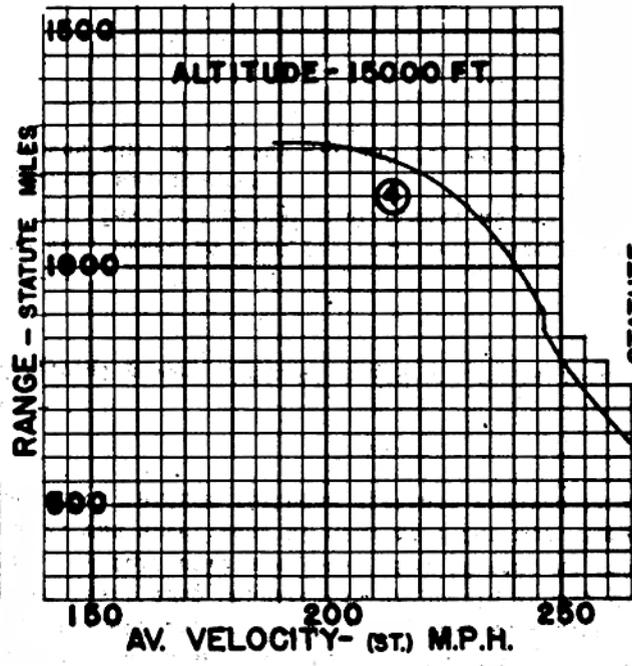
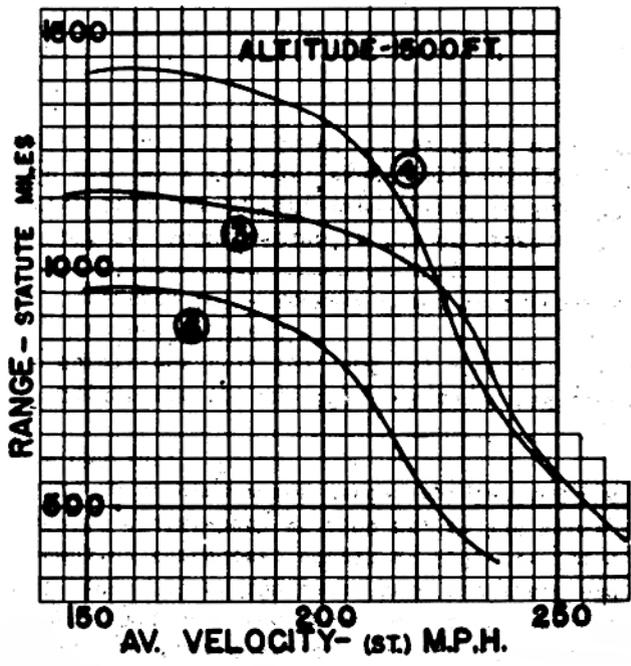
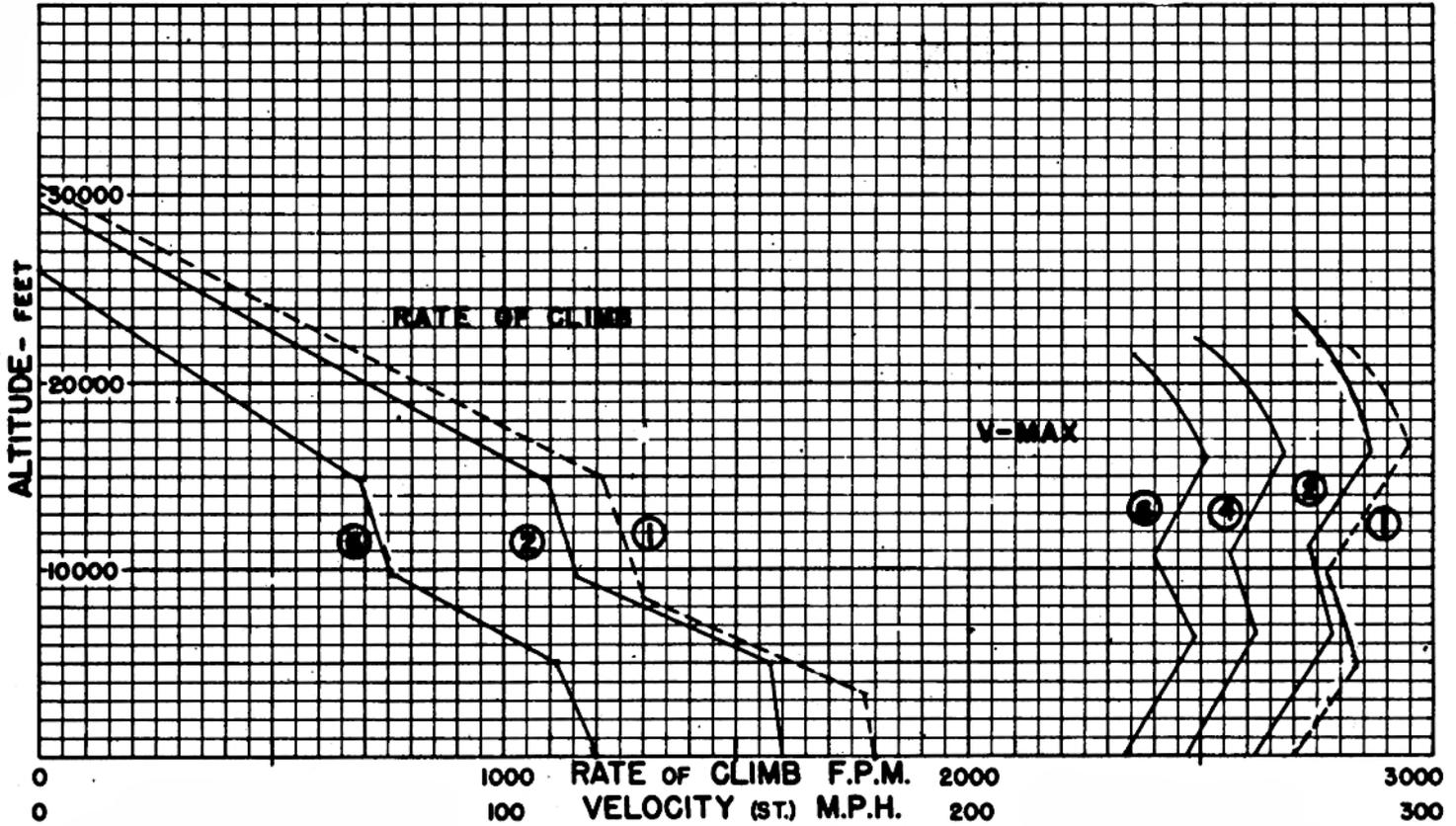
* Conditions (3) and (8) - climb at 60% power.

Conditions (4), (5), and (6) - climb at full normal power. (Climb at 60% N.S.P. is less than 400 feet per minute.)

Condition (8) - Rockets fired during combat.

PRACTICAL SCOUT RADIUS is 1/3 of range at V for max. range at 1500 ft. with fuel taken from initial fuel load for 20 min. warm-up and idling and 1 min. take-off and with allowance at end of flight for 60 min. at V for max. range for rendezvous, landing, and reserve.

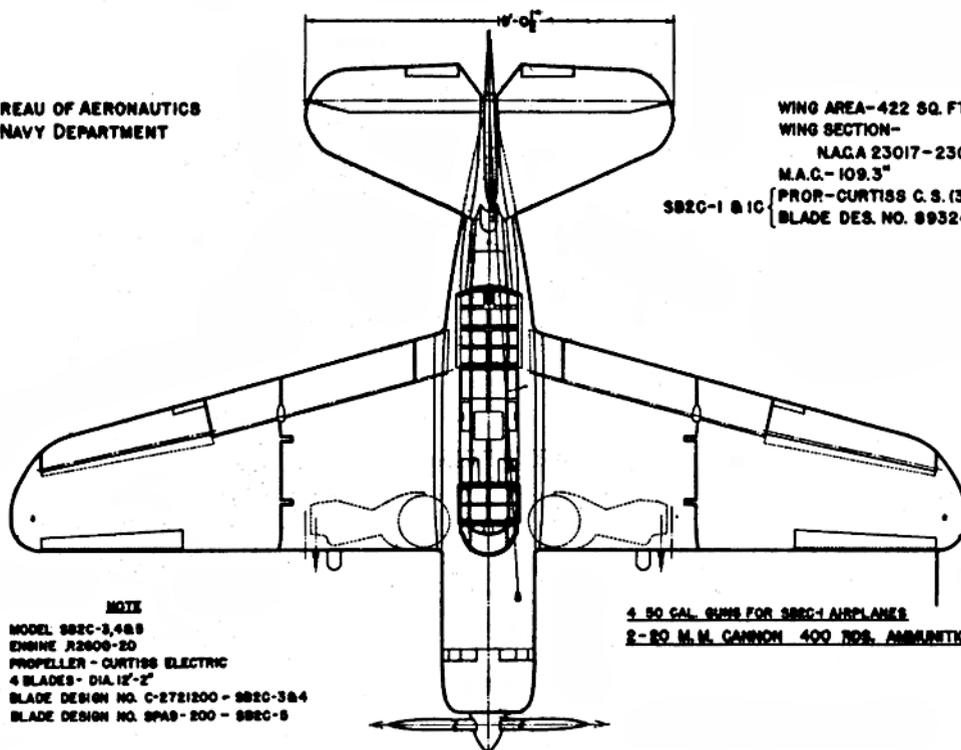
Scout Radius is reduced 3.6 nautical miles for each min. of combat at 1500 ft. at military power.



○ LOADING CONDITION COLUMN NUMBER

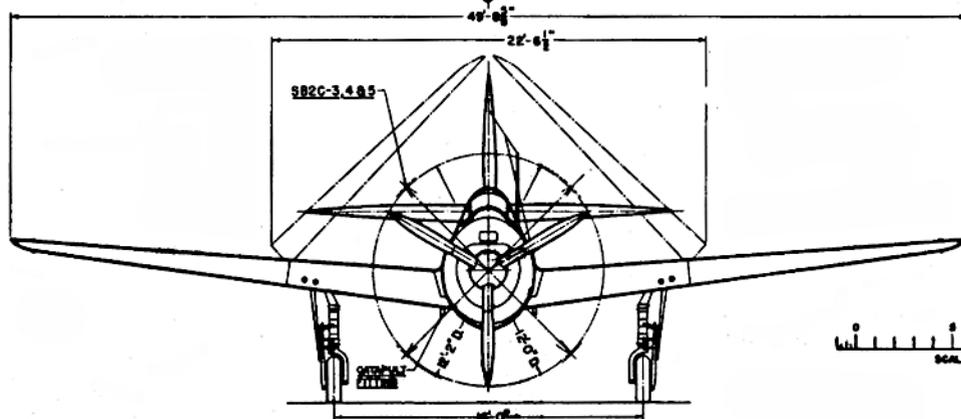
BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA-422 SQ. FT.
WING SECTION-
NACA 23017-23009
M.A.C.-109.3"
SB2C-1 & 1C (PROR-CURTISS C.S. (3 BLADE)
BLADE DES. NO. 89324

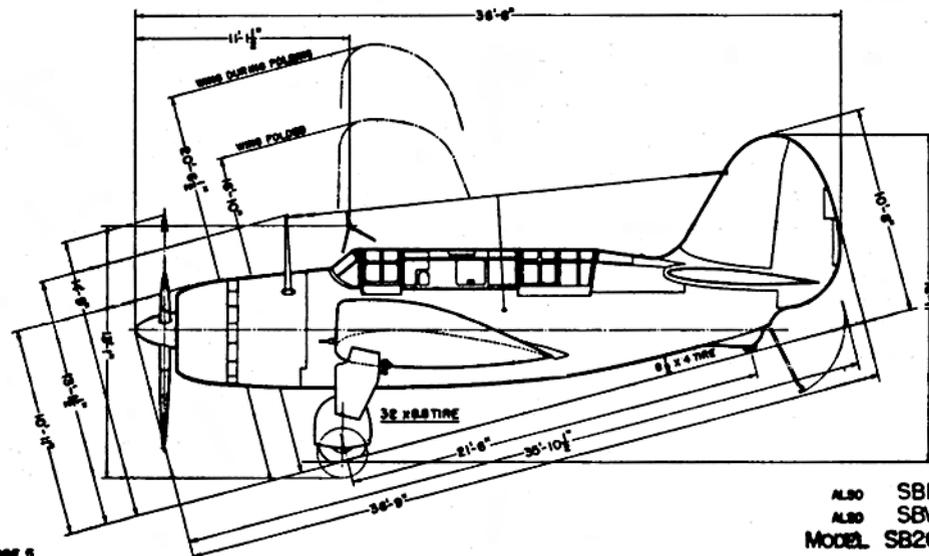


NOTE
MODEL SB2C-3,485
ENGINE J2600-20
PROPELLER - CURTISS ELECTRIC
4 BLADES - DIA. 12'-2"
BLADE DESIGN NO. C-27E1200 - SB2C-3&4
BLADE DESIGN NO. SPAS-200 - SB2C-5

4 50 GAL. GUNS FOR SB2C-1 AIRPLANES
2 - 80 M.M. CANNON 400 RDS. AMMUNITION



0 5 10'
SCALE



ALSO SBF-1,384
ALSO SBW-1,3485
MODEL SB2C-1,1C,3,485

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

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

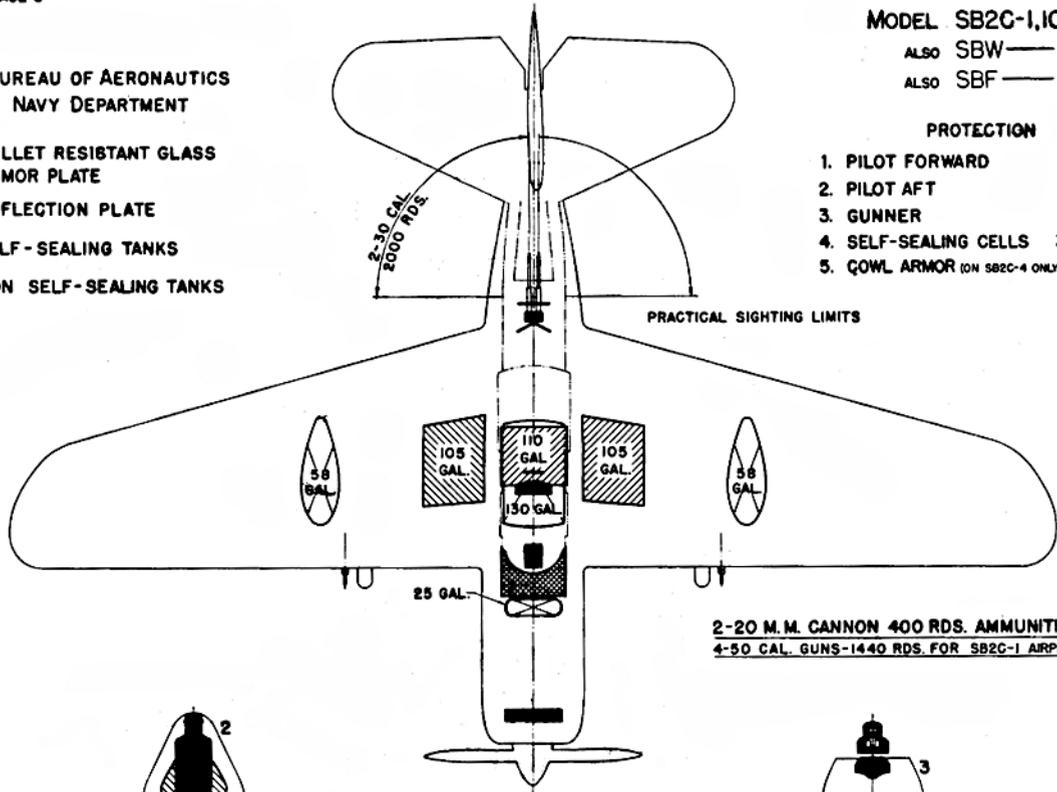
MODEL SB2C-1, IC, 3 & 4

ALSO SBW—1, 3 & 4

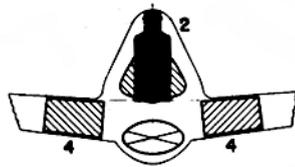
ALSO SBF—1, 3 & 4

PROTECTION

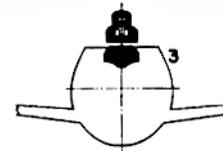
1. PILOT FORWARD 84 LBS.
2. PILOT AFT 81 LBS.
3. GUNNER 30 LBS.
4. SELF-SEALING CELLS 365 LBS.
5. QOWL ARMOR (ON SB2C-4 ONLY) 35 LBS.



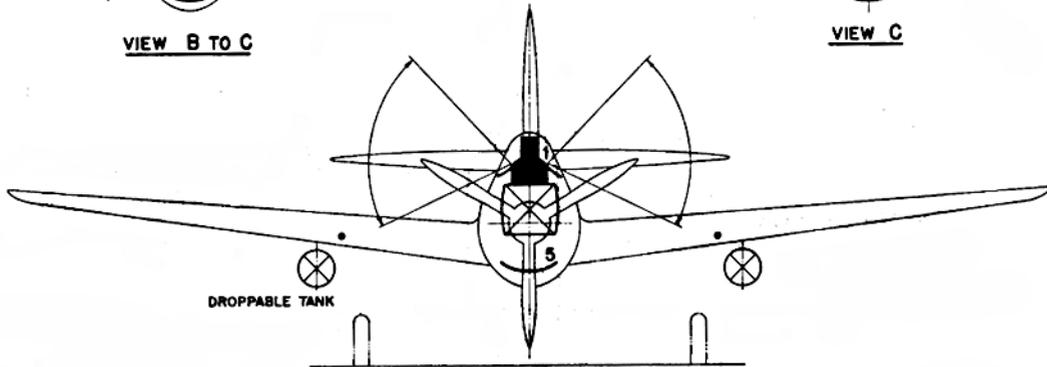
2-20 M. M. CANNON 400 RDS. AMMUNITION
4-50 CAL. GUNS-1440 RDS. FOR SB2C-1 AIRPLANES



VIEW B TO C



VIEW C



VIEW A TO B

