

COLUMN NUMBER	1	2	3	4
LOADING CONDITION	TORPEDO 1 MK 13-2	TORPEDO 1 MK 13-2	TORPEDO 1 MK 13-2 Two Tanks External	BOMBER 2-1600#A.P.
GROSS WEIGHT LBS.	17011	17011	18488	18231
EMPTY WEIGHT (Calculated) LBS.	11022			
FUEL/OIL GALS.	317/18	317/18	517/29	317/18
FIXED GUNS/AMMUNITION	3-.50/600		3-.50/750	
FLEXIBLE GUNS/AMMUNITION	Tunnel-1-.30/500,		Turret-1-.50/400	
ENGINE POWER USED FOR PERFORMANCE	MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING LBS/SQ.FT.	38.8	38.8	42	41.7
POWER LOADING ① LBS/BHP.	10.6	11.1	12.1	12.0
V-MAX. SEA LEVEL MPH.	293	273	252	272
V-MAX. AIRPLANE CRIT. ALT. MPH.	306/13000	303/14100	278/13900	301/14100
V-STALL. GROSS WEIGHT. ② MPH.	78.7	78.7	82.1	81.5
V-STALL. WITHOUT FUEL ② MPH.	74.2	74.2	74.9	77.2
TIME-TO-CLIMB -10000FT.- MIN.	7.2	8.3	10.1	9.5
TIME-TO-CLIMB -20000FT.- MIN.	18.4	20.1	25.4	23.4
SERVICE CEILING FT.	27700	27500	25500	26400
TAKE-OFF DISTANCE -CALM- FT.		748	961	891
TAKE-OFF DISTANCE -15 KN- FT.		475	621	574
TAKE-OFF DISTANCE -25 KN- FT.		323	435	399
RATE OF CLIMB - S.L. - FT./MIN.	1720	1300	1080	1140
MAX. RANGE /V-AV. ③ ST.MI/MPH.		1075/170	1505/168'	1000/178
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.		190	395	185
ENGINE /PROP.GEAR RATIO	P & W R-2800-20 (2:1)			
ENGINE RATING BHP/RPM/ALT.	NORMAL 1675/2550/S.L.-5700 1525/2550/8400-12900		MILITARY 2000/2700/S.L.-1800 1600/2700/8000-11800	
	2000/2700/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 5000' ALTITUDE			

	TANKAGE IN GALLONS	OIL	FUEL	OFFENSIVE ARMAMENT
FIXED	PROTECTED	32	317	Fuselage Bomb-Bay
	UNPROTECTED			Torpedoes: 1 MK 13-2,-1, or MK 13
	TOTAL-INCL.PROT.	32	317	Bombs : 2-1600#, 2-1000#,
	INCREASE-REMOVED PROTECTION (Not removable)			4-500# or 12-100#
AUX.				Depth Bombs: 4-325#, 4-650#
	DROPPABLE - Wings - 2 @ 100		200	
	DROPPABLE			
	PROTECTED+UNPROTECTED+DROPPABLE.	32	517	

REMARKS- Max. range in the ferry condition is 1900 st. miles at 146 st. m.p.h. at 5000' altitude at gross weight of 14995 lbs. and 517 gals. fuel

Vmax is increased approximately 3 st. m.p.h. at 14000 ft. by removal of scanning disc nacelle and radar equipment.

SUPERSEDES TBU-1 SHEETS OF 8/11/42

NAVAL AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	5	6	7
LOADING CONDITION	BOMBER 2-500# Two Tanks External	SCOUT	SCOUT Two Tanks External
GROSS WEIGHT LBS.	17364	14884	16317
EMPTY WEIGHT (Calculated) LBS.	11022		
FUEL/OIL GALS.	517/29	317/18	517/29
FIXED GUNS/AMMUNITION	3-.50/750		
FLEXIBLE GUNS/AMMUNITION	Tunnel-1-.30/500, Turret-1-.50/400		
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL
WING LOADING LBS./SQ.FT.	39.5	33.8	37.1
POWER LOADING ① LBS./BHP.	11.4	9.7	10.6
V-MAX. SEA LEVEL MPH.	253	276	255
V-MAX. AIRPLANE CRIT. ALT. MPH.	279/13900	306/14100	281/13900
V-STALL. GROSS WEIGHT. ② MPH.	79.6	73.7	77.2
V-STALL. WITHOUT FUEL ② MPH.	72.1	68.8	69.4
TIME-TO-CLIMB -10000FT.- MIN.	8.9	6.6	8.0
TIME-TO-CLIMB -20000FT.- MIN.	21.9	15.4	19.0
SERVICE CEILING FT.	26600	30000	27800
TAKE-OFF DISTANCE -CALM- FT.	813	548	699
TAKE-OFF DISTANCE -15 KN- FT.	520	333	440
TAKE-OFF DISTANCE -25 KN- FT.	359	212	297
RATE OF CLIMB -S.L.- FT./MIN.	1220	1620	1360
MAX. RANGE /V-AV. ③ ST.MI./MPH.	1615/161	1185/161	1700/156
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.		285	440
COMBAT RADIUS NMI.	400		

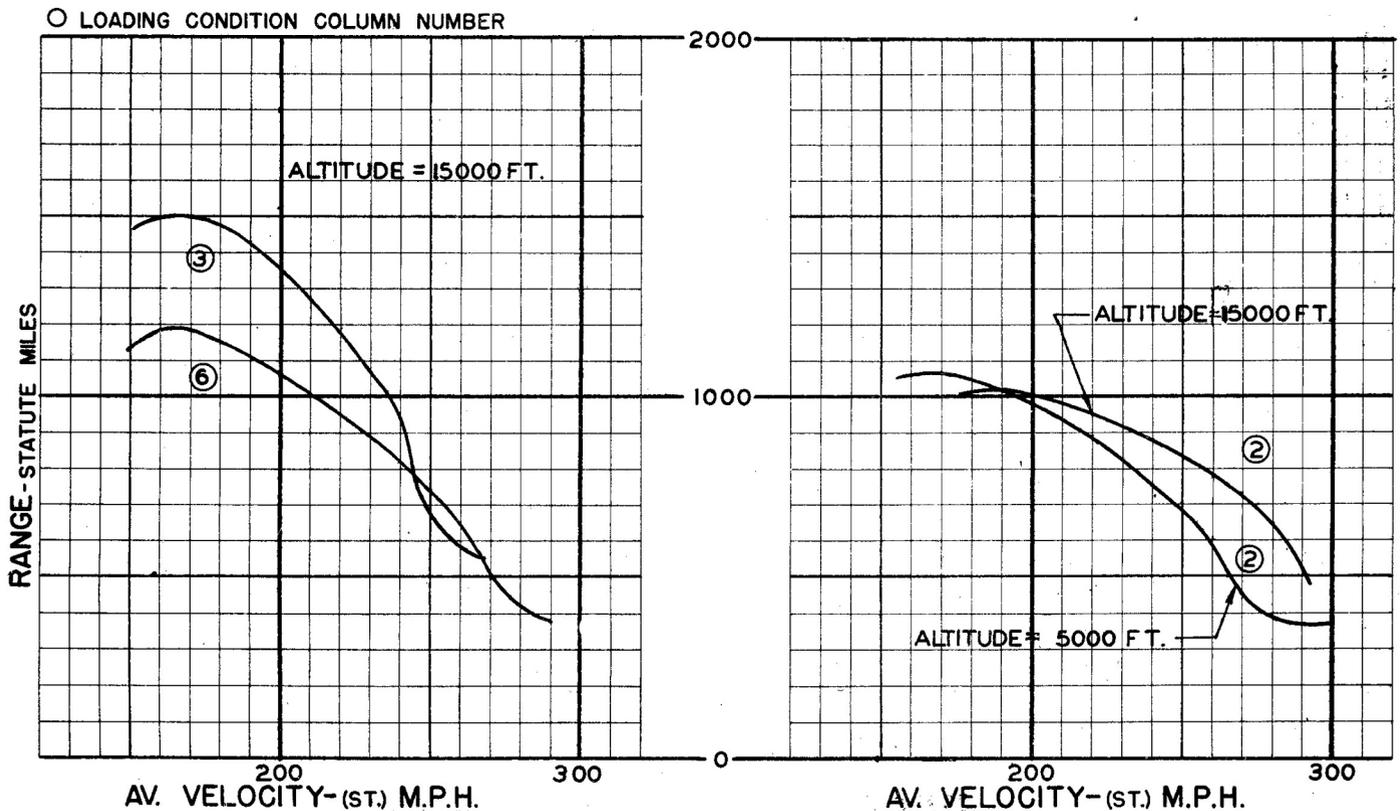
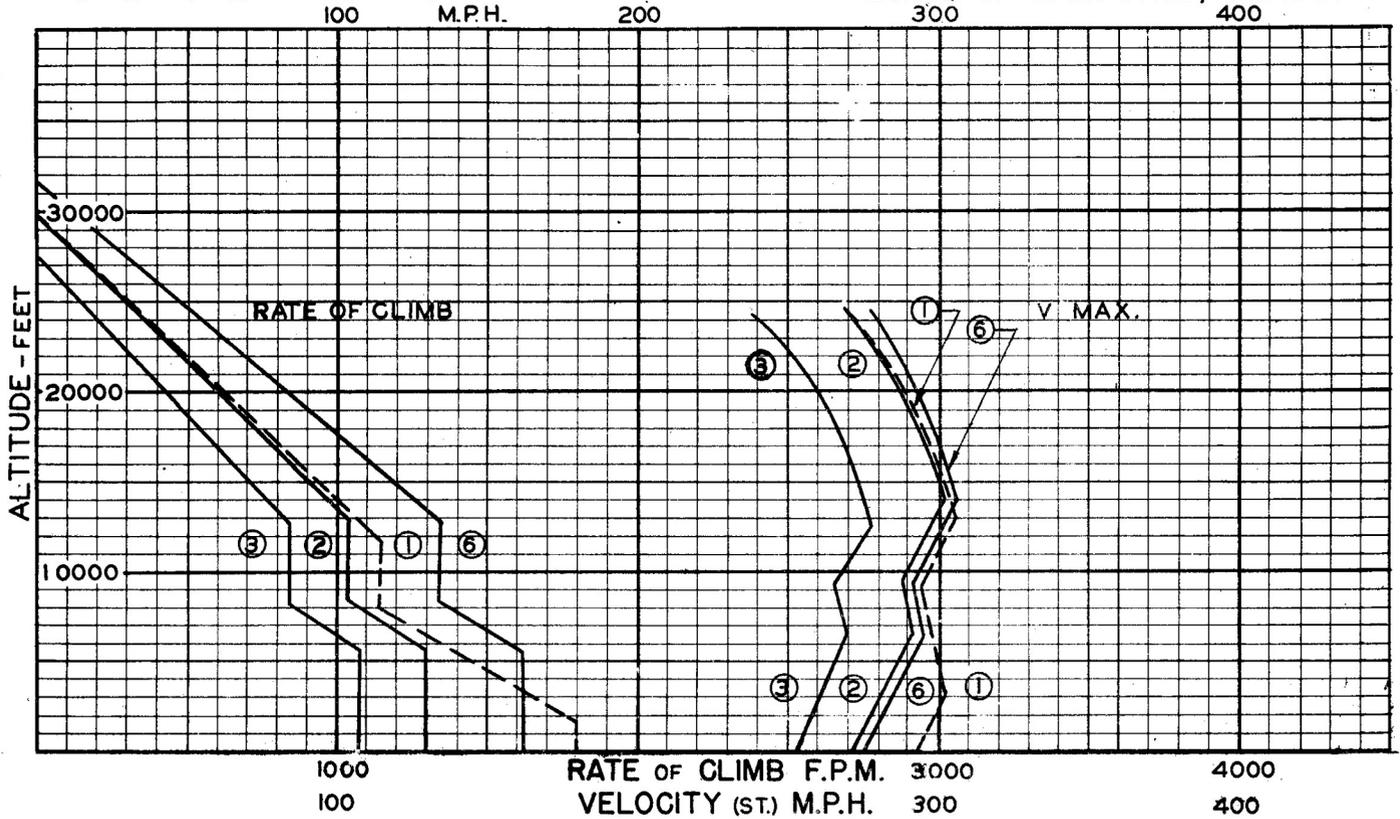
PERFORMANCE IS BASED ON- Prototype Flight Tests

RANGE & RADIUS ARE BASED ON Engine Requirement FUEL CONSUMPTION DATA INCREASED BY 15 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-lean; 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. rendezvous, landing and reserve.

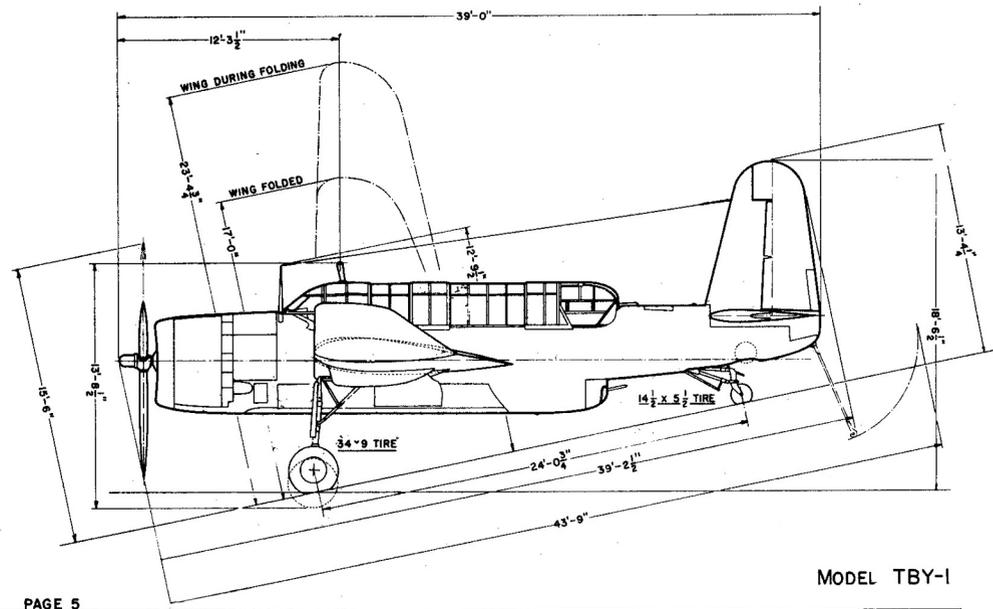
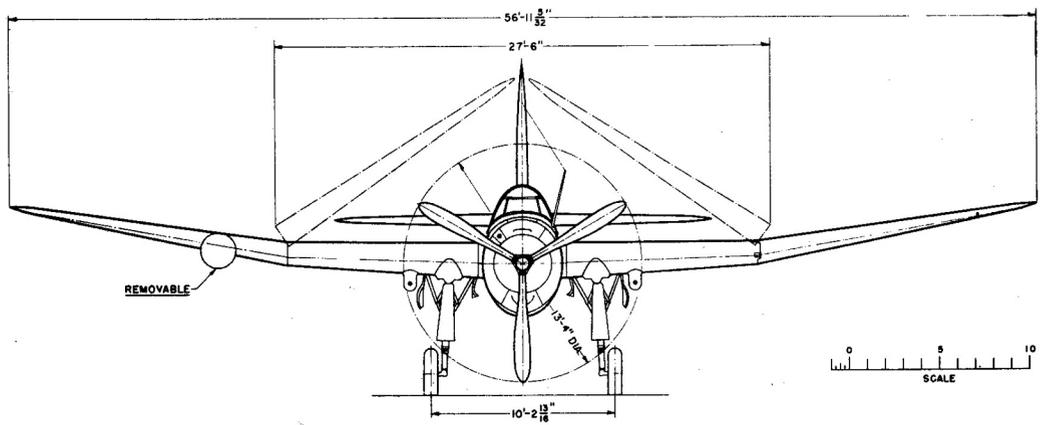
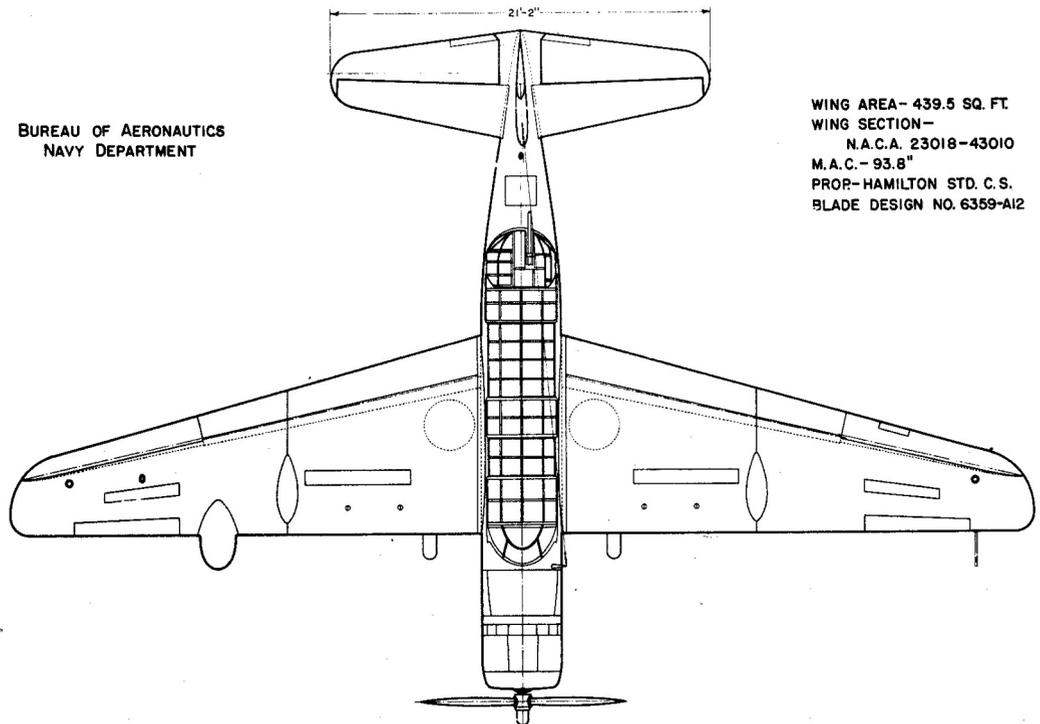
The following pending changes are incorporated - (1) Provisions for 2-100 gal. droppable wing tanks, (2) Provisions for installation of 2-.50 cal. wing guns.



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BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA- 439.5 SQ. FT.
WING SECTION-
N.A.C.A. 23018-43010
M.A.C. - 93.8°
PROR- HAMILTON STD. C.S.
BLADE DESIGN NO. 6359-A12

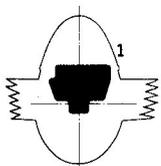
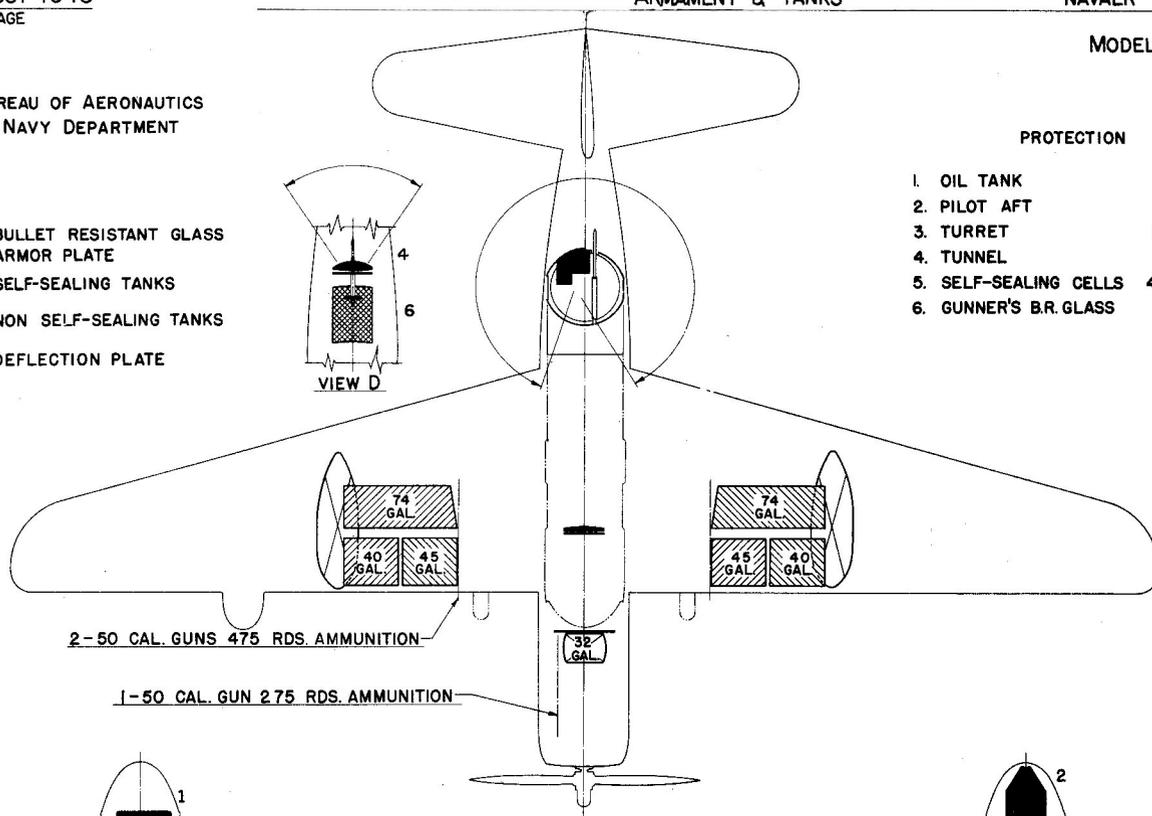


BUREAU OF AERONAUTICS
NAVY DEPARTMENT

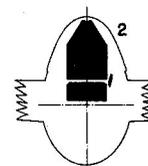
-  BULLET RESISTANT GLASS ARMOR PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS
-  DEFLECTION PLATE

PROTECTION

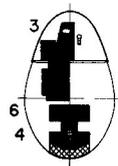
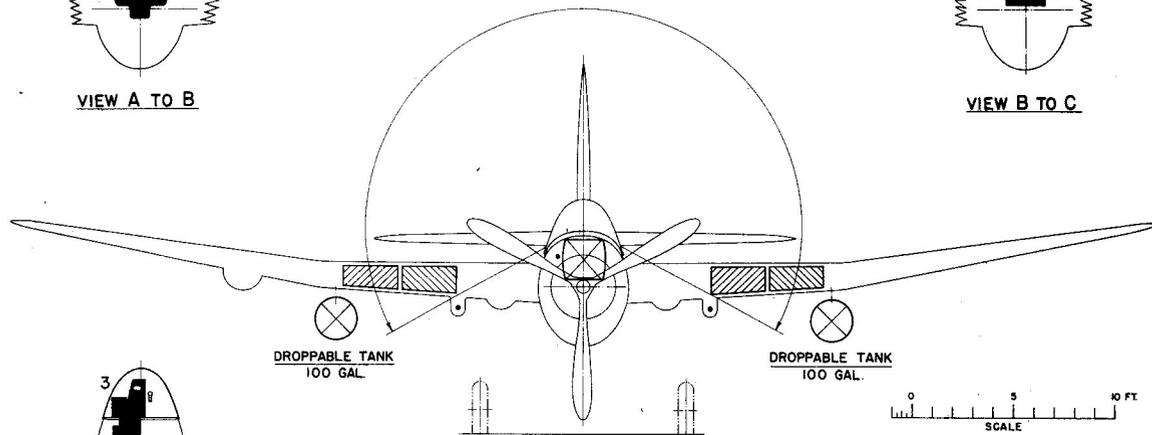
- | | |
|------------------------|----------|
| 1. OIL TANK | 60 LBS. |
| 2. PILOT AFT | 89 LBS. |
| 3. TURRET | 104 LBS. |
| 4. TUNNEL | 84 LBS. |
| 5. SELF-SEALING CELLS | 436 LBS. |
| 6. GUNNER'S B.R. GLASS | 21 LBS. |



VIEW A TO B



VIEW B TO C



VIEW C

