

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

| COLUMN NUMBER | | 1 | 2 | 3 | 4 |
|-----------------------------------|---|------------------------|---------------------|---|---------------------------------------|
| LOADING CONDITION | | COMBAT * | COMBAT * | COMBAT * | FIGHTER One 150 gal. Tank External |
| GROSS WEIGHT | LBS. | 13015 | 13015 | 13015 | 14074 |
| EMPTY WEIGHT - ACTUAL - | LBS. | 9331 | | | |
| FUEL / OIL | GALS. | 250/16 | 250/16 | 250/16 | 400/19 |
| FIXED GUNS/AMMUNITION | | 6-.50/2400 | | | |
| FLEXIBLE GUNS/AMMUNITION | | None | | | |
| ENGINE POWER USED FOR PERFORMANCE | | COMBAT | MILITARY | NORMAL | NORMAL |
| WING LOADING | LBS./SQ.FT. | 38.7 | 38.7 | 38.7 | 42.1 |
| POWER LOADING ① | LBS./BHP. | 6.6 | 7.9 | 8.4 | 9.1 |
| V-MAX. SEA LEVEL | MPH. | 305 | 302 | 288 | 274 |
| V-MAX./CRITICAL ALT. | MPH./FT. | 360/18000 | 361/23400 | 356/23900 | 337/23700 |
| V-STALL GROSS WEIGHT ② | MPH. | 88.7 | 88.7 | 88.7 | 92.2 |
| V-STALL WITHOUT FUEL ② | MPH. | 83.4 | 83.4 | 83.4 | 84.0 |
| TIME-TO-CLIMB -10000FT- | MIN. | 3.3 | 3.8 | 4.4 | 5.0 |
| TIME-TO-CLIMB -20000FT- | MIN. | 7.4 | 8.0 | 9.2 | 10.6 |
| SERVICE CEILING | FT. | 38100 | 38100 | 37400 | 36000 |
| TAKE-OFF DISTANCE -CALM- | FT. | 695 | 695 | 695 | 850 |
| TAKE-OFF DISTANCE -15 KN- | FT. | 457 | 457 | 457 | 570 |
| TAKE-OFF DISTANCE -25 KN- | FT. | 324 | 324 | 324 | 412 |
| TAKE-OFF DISTANCE -50 FT. OBST. | FT. | | | | |
| TAKE-OFF TIME | SECONDS | | | | |
| RATE OF CLIMB -SL- | FT./MIN. | 3090 | 2970 | 2380 | 2100 |
| MAX. RANGE / V-AV. ③ | ST. MI. / MPH. | | | 865/161 | 1235/161 |
| 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 (F-1) | N MI. | | | 110 | 315 |
| ENGINE / PROP GEAR RATIO | | P & W R-2800-10W (2:1) | | | |
| ENGINE RATING BHP/RPM/ALT. | COMBAT | MILITARY | NORMAL | TAKE-OFF | |
| | 2250/2700/S.L. | 2000/2700/S.L.-1700 | 1675/2550/S.L.-5500 | 2000/2700 | |
| | 2075/2700/1800 | 1755/2700/5400 | 1570/2550/7200 | | |
| | 2135/2700/12400 | 1800/2700/15700 | 1625/2550/16750 | | |
| | 1965/2700/14600 | 1640/2700/18100 | 1530/2550/18200 | | |
| | 1975/2700/16900 | 1650/2700/21000 | 1550/2550/22000 | | |
| See page 3 | | | | | |
| AUX. FIXED | TANKAGE IN GALLONS | OIL | FUEL | OFFENSIVE ARMAMENT | |
| | PROTECTED | 19 | 250 | FUSELAGE - external - alternate with droppable tank | |
| | UNPROTECTED | | | Bombs: 1-2000#, 1-1600#, 1-1000#, or 1-500# | |
| | TOTAL - FIXED INTERNAL | 19 | 250 | Torpedoes: 1 MK13-3 | |
| | DROPPABLE | | | Rockets: 1-11.75" A.R. | |
| | DROPPABLE - FUSELAGE - | | 150 | | |
| NOTE | WINGS - 2 @ 100 | | 200 | WINGS - external - alternate with droppable tanks | |
| | TOTAL | 19 | 600 | Bombs: 2-1000#, 2-500#, 2-250#, or 6-100# | |
| | STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS | | | Rockets: 2-11.75" A.R. | |
| | ① BHP AT MAX. CRIT. ALT. | | | WINGS - on MK5-2 rocket launchers | |
| | ② STALL - WITHOUT POWER | | | Rockets - 6-5" HVAR, or 6-5" AR | |
| | ③ AT 1500' ALTITUDE | | | | |
| | | * See page 2 | | | |

SUPERSEDES 1 NOVEMBER 1944

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

| COLUMN NUMBER | | | | |
|--|--|--|--|--|
| LOADING CONDITION | | | | |
| GROSS WEIGHT LBS. | | | | |
| EMPTY WEIGHT LBS. | | | | |
| FUEL/OIL GALS. | | | | |
| FIXED GUNS/AMMUNITION | | | | |
| FLEXIBLE GUNS/AMMUNITION | | | | |
| ENGINE POWER USED FOR PERFORMANCE | | | | |
| WING LOADING LBS./SQ.FT. | | | | |
| POWER LOADING ① LBS./BHP. | | | | |
| V-MAX. SEA LEVEL MPH. | | | | |
| V-MAX./ CRITICAL ALT. MPH./ FT. | | | | |
| V-STALL. GROSS WEIGHT ② MPH. | | | | |
| V-STALL. WITHOUT FUEL ② MPH. | | | | |
| TIME-TO-CLIMB -10000FT- MIN. | | | | |
| TIME-TO-CLIMB -20000FT- MIN. | | | | |
| SERVICE CEILING FT. | | | | |
| TAKE-OFF DISTANCE -CALM- FT. | | | | |
| TAKE-OFF DISTANCE -15 KN- FT. | | | | |
| TAKE-OFF DISTANCE -25KN- FT. | | | | |
| TAKE-OFF DISTANCE -50 FT. OBST. FT. | | | | |
| TAKE-OFF DISTANCE SECONDS | | | | |
| RATE OF CLIMB -SL- FT./ MIN. | | | | |
| MAX. RANGE / V-AV. ③ ST. MI./ MPH. | | | | |
| 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. | | | | |
| COMBAT RADIUS NMI. | | | | |

PERFORMANCE IS BASED ON - FLIGHT TEST OF F6F-3

RANGE & RADIUS ARE BASED ON

F6F-5

FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

* COMBAT CONDITION: Fuselage bomb-shackles & "T"- bracing, faired wing bomb-racks and sway bracing, and AIA-6 radar nacelle aboard. Rocket launchers not aboard. Addition of 6 MK5-2 rocket launchers reduces Vmax/S.L. by 4 mph at Combat Power.

NOTE: MK4 fuselage shackles and T-bracing, faired MK51-7 wing bomb-racks and sway-bracing, AIA radar nacelle, flame dampers and flash eliminator in all conditions. Water available for approximately 15 mins. at combat power.

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BUREAU OF AERONAUTICS, NAVY DEPT.

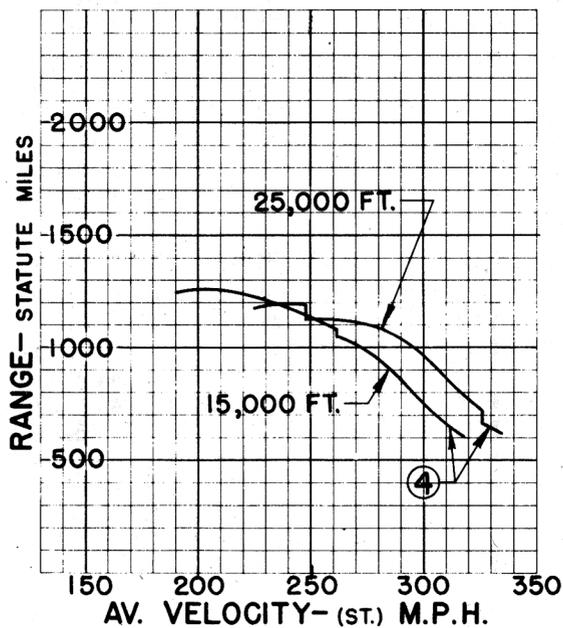
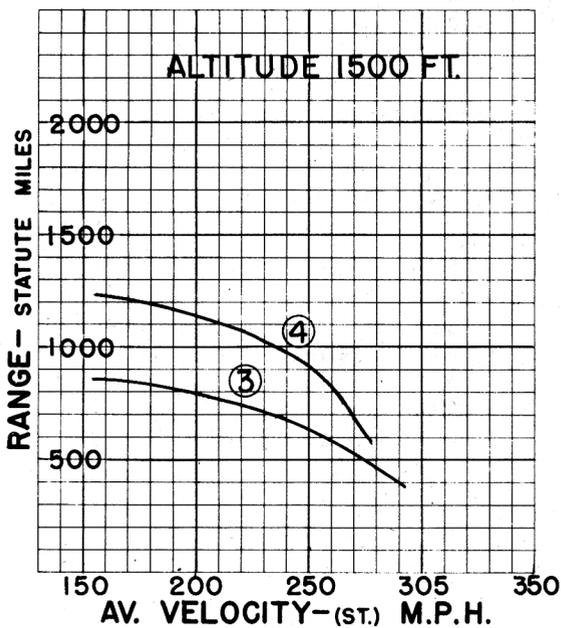
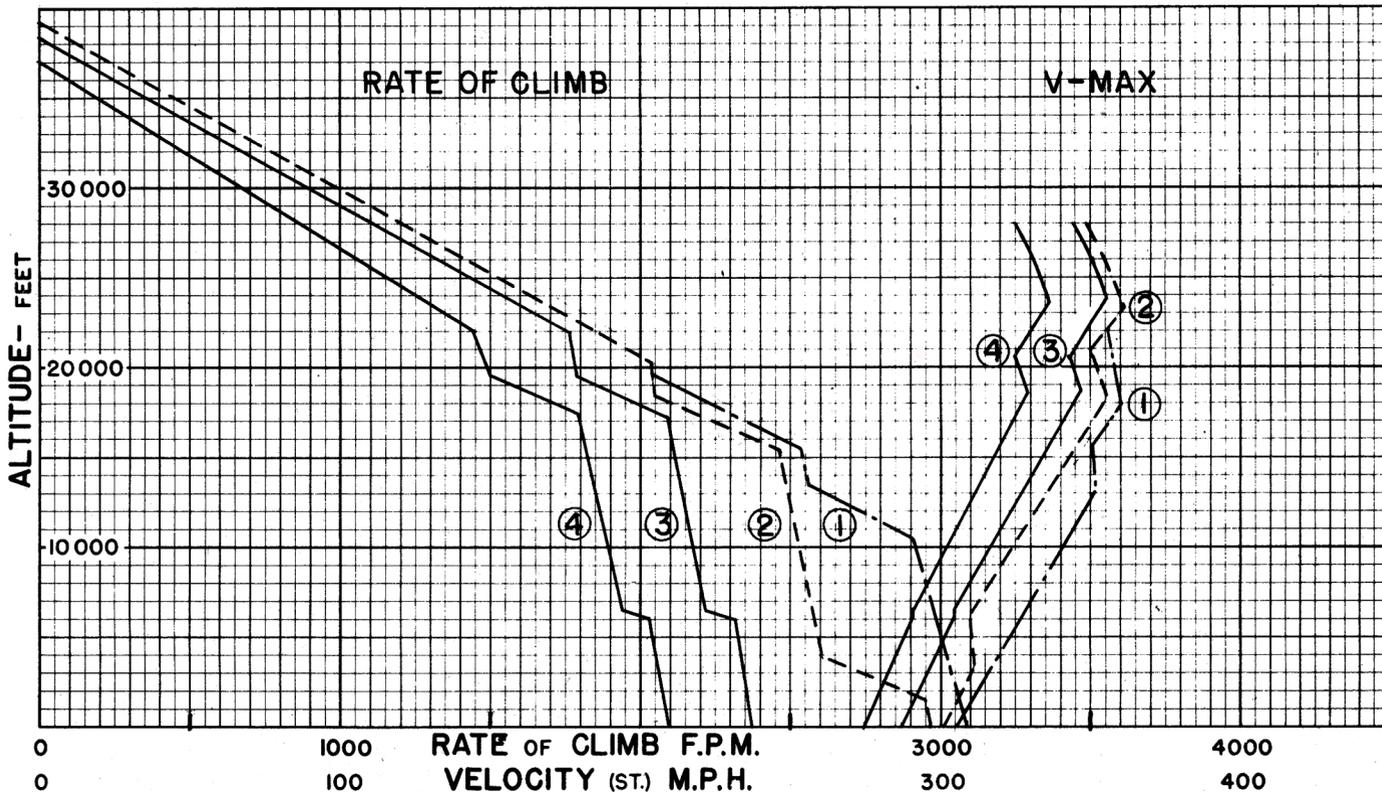
FIGHTER COMBAT RADIUS FORMULA NO. F-1-CONDITIONS NOS. - 3 & 4 RADIUS = CLIMB + CRUISE-OUT + CRUISE BACK

| WARM-UP | RENDEZVOUS | CLIMB | CRUISE OUT | DROP TANKS and BOMBS | COMBAT | CRUISE BACK | RESERVE |
|-----------------|--------------------------|--------------------------|--------------------------|-------------------------|---------------------------------|--------------|--------------------------|
| 20 min. | 20 min. at sea level | to 15000 ft. | at 15000 ft. | | 20 min. at 15000 ft. | at 1500 ft. | 60 min. at |
| TAKE-OFF | at | at | Vel. for | FIRE | 10 min. WEP. | 170 kts. TAS | Vel. for |
| 1 min. | 60% N.S.P. Auto Lean. | 60% N.S.P. Auto Rich. | Max. Range Auto Lean. | ROCKETS | 10 min. Mil. Pr. and descend | Auto Lean. | Max. Range Auto Lean. |

NOTE: (1) Engine ratings are AEL ratings. These ratings do not conform to engine data obtained from F6F flight test. The flight test data are used in performance calculations.

(2) Rammed engine ratings for performance from flight test clean condition.

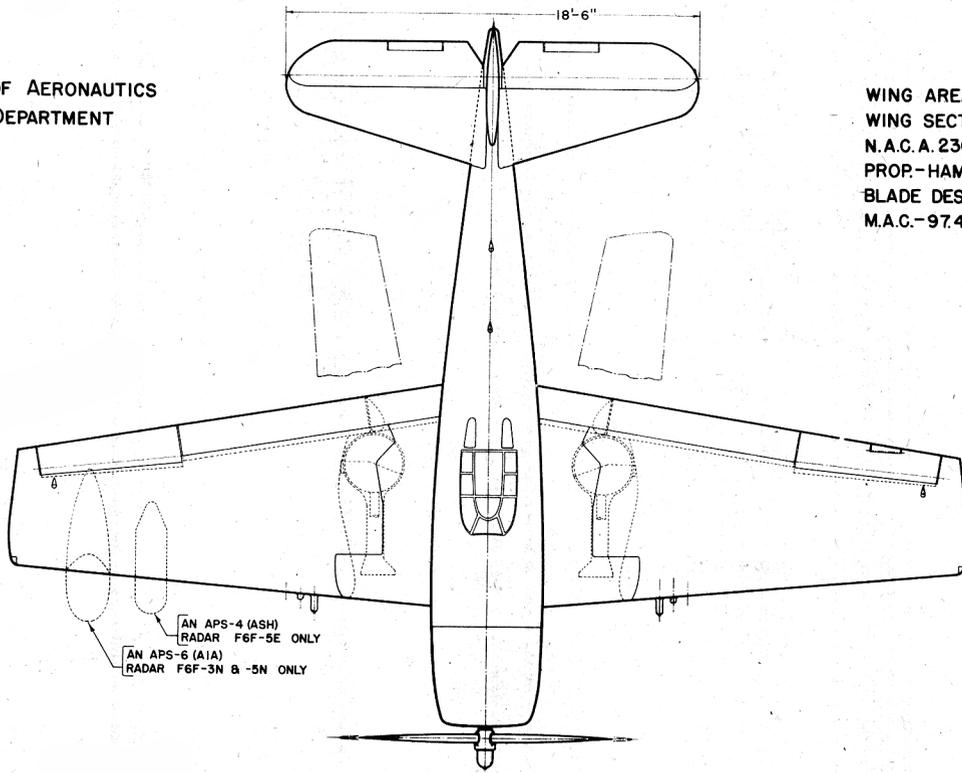
| COMBAT | MILITARY | NORMAL | TAKE-OFF |
|-----------------|---------------------|-----------------------|----------------|
| 2030/2700/S.L. | 1960/2700/S.L.-3400 | 1710/2550/S.L.-6200 | 2000/2700/S.L. |
| 2110/2700/13100 | 1790/2700/6100 | 1690/2550/6500-19000 | |
| 1930/2700/15700 | 1840/2700/18200 | 1580/2550/20800-24100 | |
| 1940/2700/18000 | 1660/2700/21000 | | |
| | 1670/2700/23400 | | |



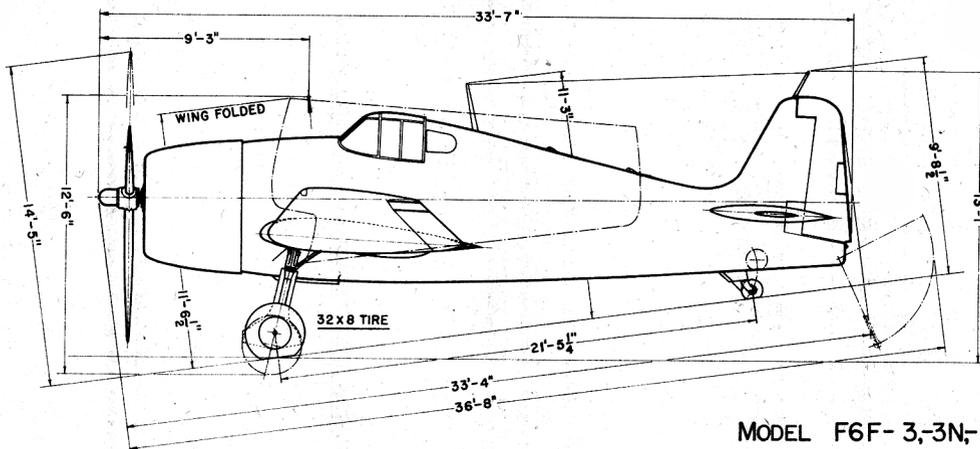
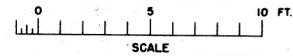
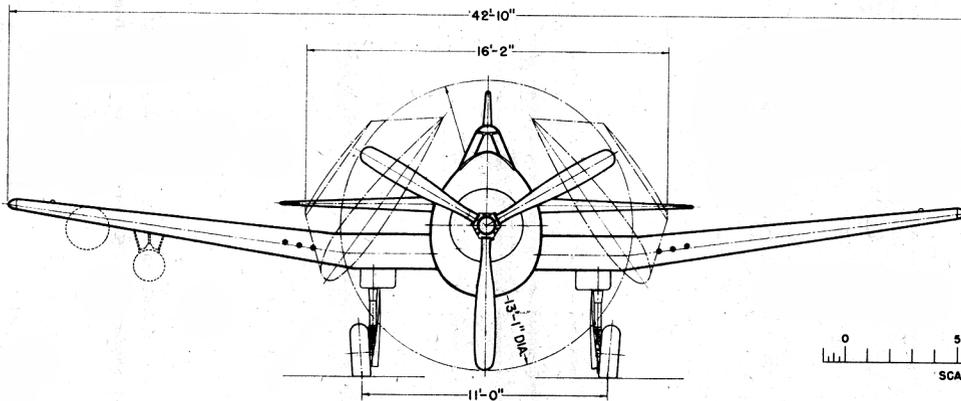
○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 334 SQ. FT.
WING SECTION -
N.A.C.A. 23015.6-23009
PROP - HAMILTON STD. C.S.
BLADE DESIGN NO. 6501A-0
M.A.C. - 97.4



AN APS-4 (ASH)
RADAR F6F-5E ONLY
AN APS-6 (A1A)
RADAR F6F-3N & -5N ONLY



MODEL F6F- 3,-3N,- 5,-5N & -5E

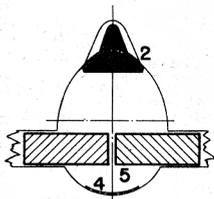
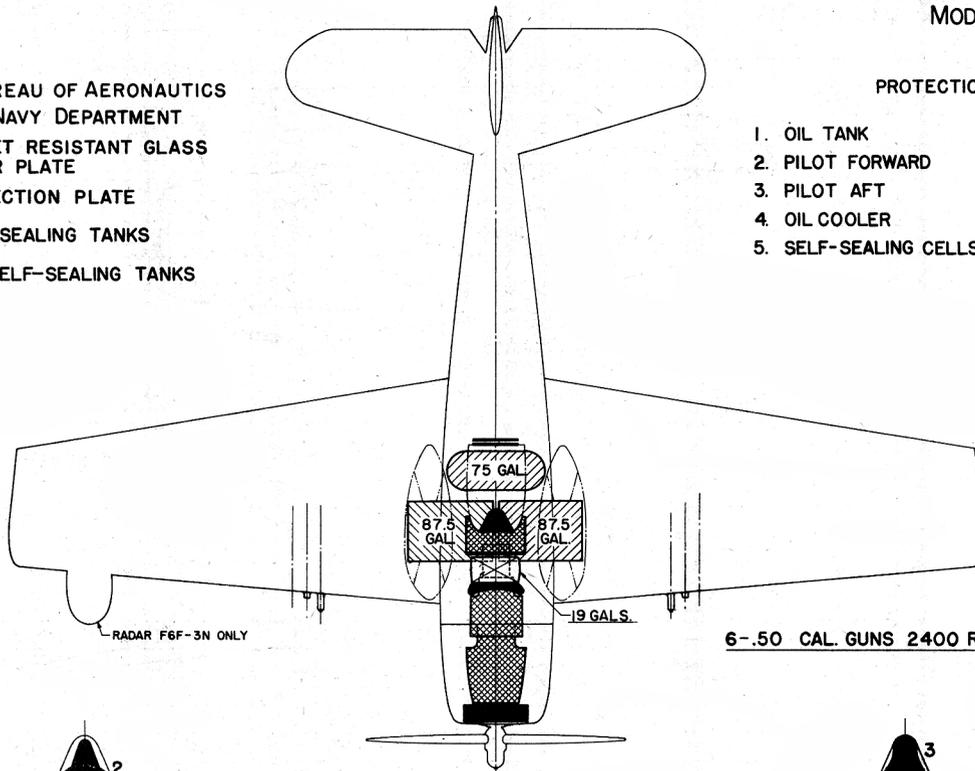
MODEL F6F-3 & 3N

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

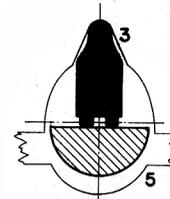
PROTECTION

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

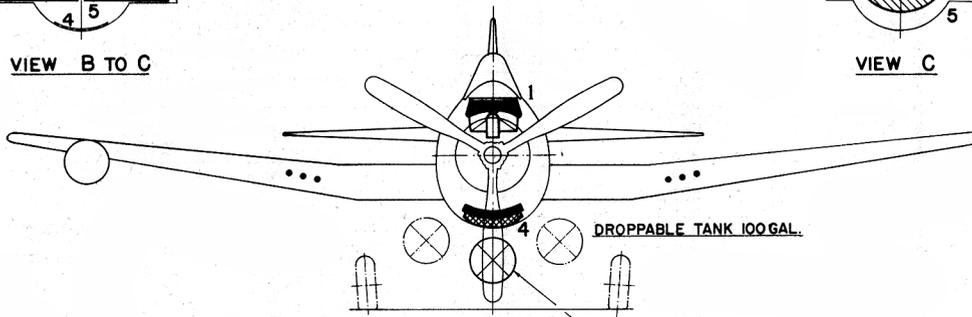
- 1. OIL TANK 19 LBS.
- 2. PILOT FORWARD 62 LBS.
- 3. PILOT AFT 103 LBS.
- 4. OIL COOLER 16 LBS.
- 5. SELF-SEALING CELLS 190 LBS.



VIEW B TO C



VIEW C



VIEW A TO B

DROPPABLE TANK 100 GAL.

DROPPABLE TANK 150 GAL.

