

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

| COLUMN NUMBER | 1 | 2 | 3 | 4 |
|--------------------------------------|--|-----------|-------------------------------|------------------------|
| LOADING CONDITION | PATROL | PATROL | BOMBER 3-1000# | BOMBER 2-1000# * |
| GROSS WEIGHT LBS. | 29735 | 29735 | 32893 | 33493 |
| EMPTY WEIGHT - Actual LBS | 20446 | | | |
| FUEL/OIL GALS. | 974/54 | 974/54 | 974/54 | 1189/66 |
| FIXED GUNS/AMMUNITION | 6-.50/2200rds | | | |
| FLEXIBLE GUNS/AMMUNITION | 4-.50/1100rds | | | |
| ENGINE POWER USED FOR PERFORMANCE | MILITARY | NORMAL | NORMAL | NORMAL |
| WING LOADING LBS/SQFT | 48.7 | 48.7 | 53.8 | 54.9 |
| POWER LOADING ① LBS/BHP. | 10.2 | 11.0 | 12.2 | 12.6 |
| V-MAX. SEA LEVEL MPH. | 256 | 244 | 241 | 241 |
| V-MAX. AIRPLANE CRIT. ALT. MPH. | 266/11500 | 264/12500 | 260/12500 | 259/12500 |
| V-STALL. GROSS WEIGHT. ② MPH. | 81.2 | 81.2 | 85.4 | 86.2 |
| V-STALL. WITHOUT FUEL ② MPH. | 72.8 | 72.8 | 77.4 | 76.4 |
| TIME-TO-CLIMB -10000FT.- MIN. | 8.2 | 9.0 | 11.5 | 12.1 |
| TIME-TO-CLIMB -20000FT.- MIN. | 22.1 | 23.6 | 32.3 | 34.5 |
| SERVICE CEILING FT. | 24600 | 24900 | 22800 | 22400 |
| TAKE-OFF DISTANCE -CALM- FT. | 1704 | 1704 | 2243 | 2356 |
| TAKE-OFF DISTANCE -15 KN- FT. | 1204 | 1204 | 1616 | 1700 |
| TAKE-OFF DISTANCE -25 KN- FT. | 912 | 912 | 1244 | 1318 |
| RATE OF CLIMB -SL- FT/MIN. | 1480 | 1200 | 960 | 920 |
| MAX. RANGE/V-AV. ③ ST. MI/MPH. | | 1635/159 | 1485/161 | 1845/160 |
| BOMBING RADIUS/V-AV.-20% R- NMI/KN. | | | 505/141 | 620/141 |
| BOMBING RADIUS/V-AV.-33% R- NMI/KN. | | | 420/141 | 510/141 |
| PATROL RADIUS/V-AV.-20% R- NMI/KN. | | 370/139 | | |
| PATROL RADIUS/V-AV.-33% R- NMI/KN. | | 310/139 | | |
| SCOUT. RADIUS NMI. | | | | |
| COMBAT RADIUS NMI. | | | | |
| ENGINE /PROP.GEAR RATIO | 2 W.A.C. R-2600-13 (16:9) | | | |
| ENGINE RATING BHP/RPM/ALT. | NORMAL 1500/2400/SL-5800 | | MILITARY 1700/2600/SL-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-WITH POWER ③ AT 1500' ALTITUDE | | | |

| | TANKAGE IN GALLONS | OIL FUEL | OFFENSIVE ARMAMENT |
|-------|----------------------------------|----------|-----------------------------|
| FIXED | PROTECTED | 76 974 | FUSELAGE BOMB-BAY |
| | UNPROTECTED | | Bombs : 1-2000#, 2-1600#, |
| | TOTAL-INCL.PROT. | 76 974 | 3-1000#, 6-500#, or |
| | INCREASE-REMOVED PROTECTION | FIXED | 20-100# |
| AUX. | BOMB - BAY - PROT. - FIXED | 215 | Depth Bombs: 6-325# |
| | DROPPABLE - BOMB-BAY - | 335 | Torpedoes : 1 MK13-2, or -1 |
| | DROPPABLE | | WINGS : (External) |
| | PROTECTED+UNPROTECTED+DROPPABLE. | 76 1524 | Bombs : 8-100# |
| | | | Depth Bombs: 6-325# |

REMARKS- One 585 gal. unprotected droppable tank may be installed for ferry condition in lieu of the 215 gal. and 335 gal. bomb-bay tanks.

* With 215 gal. auxiliary bomb-bay tank.

SUPERSEDES 4/1/43

DATE-1 DEC 1943

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MODEL-PBJ-IC,-ID

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

| COLUMN NUMBER | 5 | 6 | 7 | 8 |
|---|---------------------|--------------------------|------------------------------|-----------|
| LOADING CONDITION | TORPEDO 1 MK13-2 | TORPEDO 1 MK13-2 * | A. S. PATROL 6-325# ** | FERRY |
| GROSS WEIGHT LBS. | 32098 | 33798 | 35844 | 31255 |
| EMPTY WEIGHT - Actual - LBS. | 20446 | | | |
| FUEL/OIL GALS. | 974/54 | 1189/66 | 1524/76 | 1559/76 |
| FIXED GUNS / AMMUNITION | 6-.50/2200rds | | | None |
| FLEXIBLE GUNS / AMMUNITION | 4-.50/1100rds | | | None |
| ENGINE POWER USED FOR PERFORMANCE | NORMAL | NORMAL | NORMAL | NORMAL |
| WING LOADING LBS/SQ.FT. | 52.6 | 55.4 | 58.7 | 51.1 |
| POWER LOADING ① LBS/BHP. | 11.9 | 12.5 | 13.3 | 11.6 |
| V-MAX. SEA LEVEL MPH. | 234 | 232 | 220 | 247 |
| V-MAX. AIRPLANE CRIT. ALT. MPH. | 252/12500 | 249/12500 | 233/12500 | 267/12500 |
| V-STALL. GROSS WEIGHT. ② MPH. | 84.4 | 86.5 | 89.2 | 83.3 |
| V-STALL. WITHOUT FUEL ② MPH. | 76.3 | 76.9 | 77.0 | 69.7 |
| TIME-TO-CLIMB -10000FT.- MIN. | 11.0 | 12.7 | 16.5 | 10.0 |
| TIME-TO-CLIMB -20000FT.- MIN. | 30.8 | 37.6 | - | 26.8 |
| SERVICE CEILING FT. | 23000 | 21800 | 19700 | 24000 |
| TAKE-OFF DISTANCE -CALM- FT. | 2148 | 2490 | 3105 | 1916 |
| TAKE-OFF DISTANCE -15 KN- FT. | 1537 | 1797 | 2312 | 1372 |
| TAKE-OFF DISTANCE -25 KN- FT. | 1180 | 1390 | 1773 | 1044 |
| RATE OF CLIMB -SL- FT/MIN. | 1000 | 880 | 710 | 1090 |
| MAX. RANGE / V-AV. ③ ST.MI / MPH. | 1455/155 | 1720/156 | 1975/152 | 2710/164 |
| BOMBING RADIUS / V-AV.-20% R- NMI / KN. | 495/135 | 585/136 | | |
| BOMBING RADIUS / V-AV.-33% R- NMI / KN. | 410/136 | 480/137 | | |
| PATROL RADIUS / V-AV.-20% R- NMI / KN. | | | 445/133 | |
| PATROL RADIUS / V-AV.-33% R- NMI / KN. | | | 365/134 | |
| SCOUT. RADIUS NMI. | | | | |
| COMBAT RADIUS NMI. | | | | |

PERFORMANCE IS BASED ON- FLIGHT TEST

RANGE & RADIUS ARE BASED ON ENGINE REQUIREMENT FUEL CONSUMPTION DATA INCREASED BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

Practical Patrol Radius (Patrol and A.S. Loadings) is 1/3 of range at V for max. range at 1500' with fuel taken out for reserve.

Practical Patrol Bombing Radius (Bomber and Torpedo Loadings) is 1/2 of range at V for max. range at 1500' with fuel taken out for reserve.

Reserve considered 20% for good flight conditions and 33% for adverse flight conditions.

The following changes are incorporated: Service - thru #20

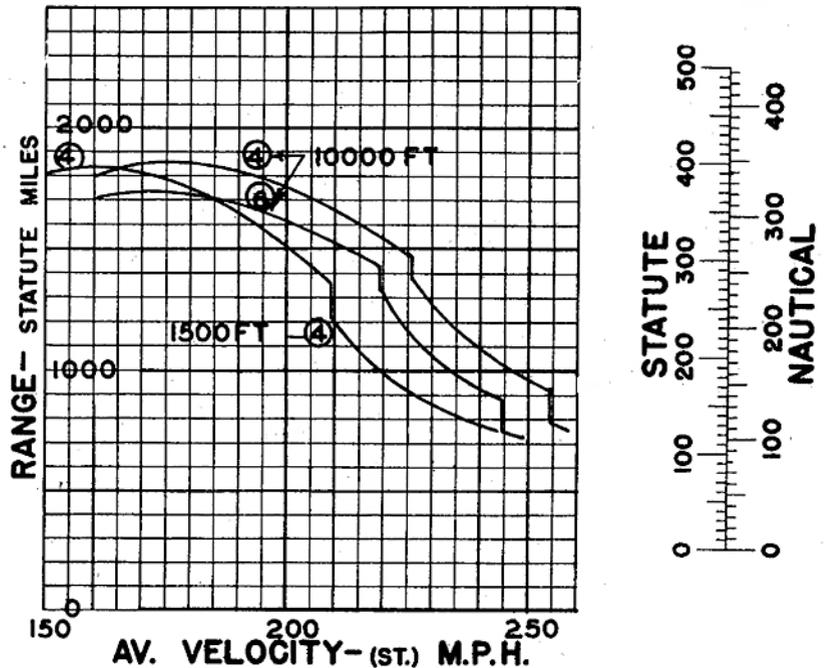
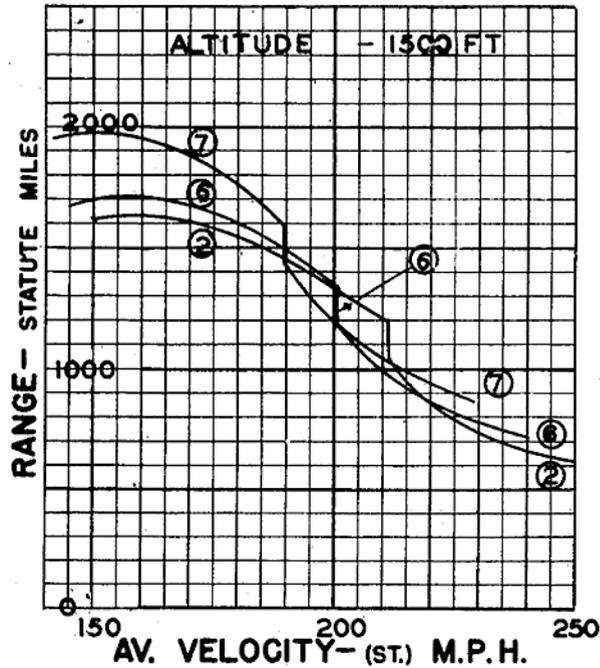
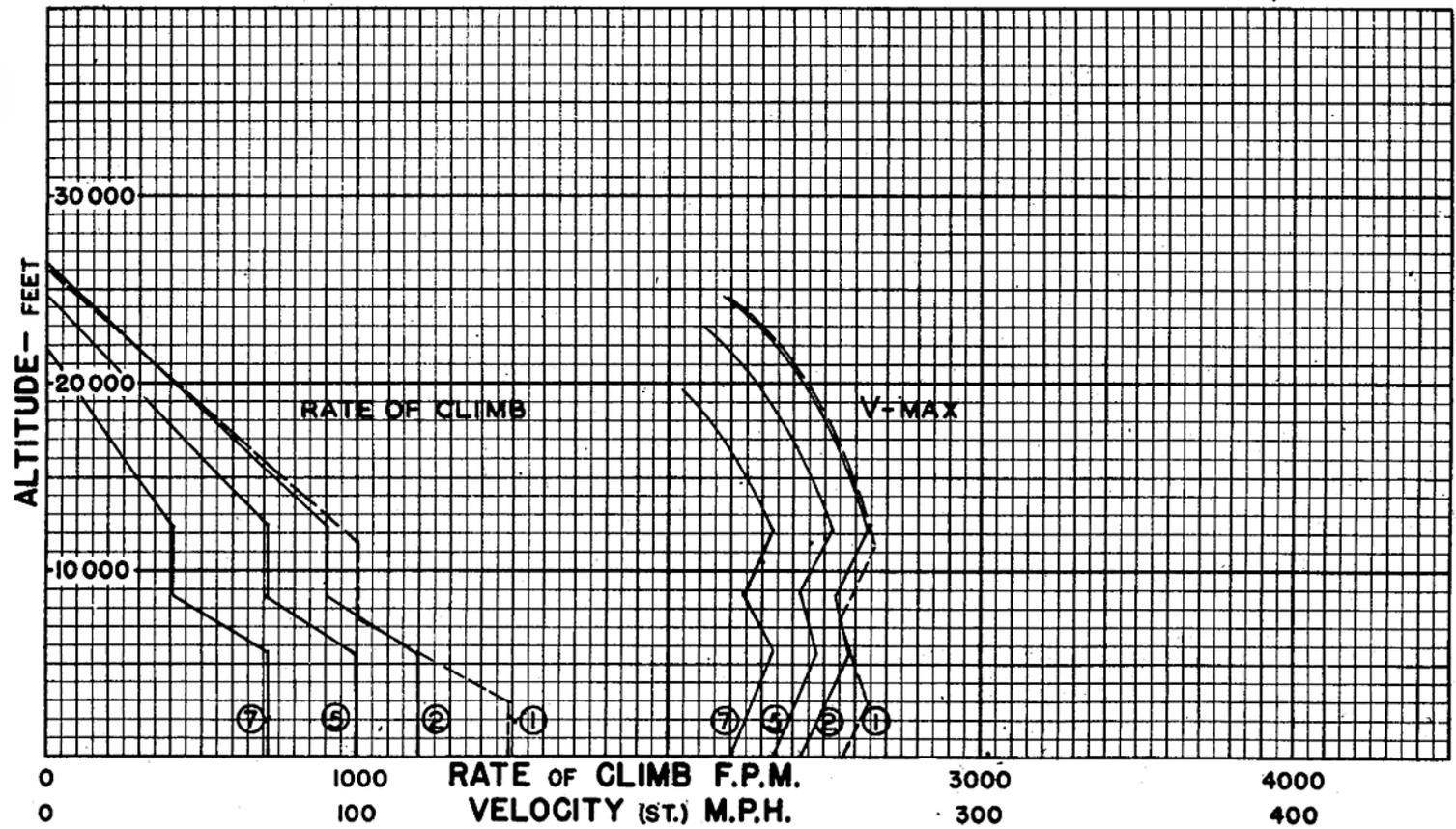
* With 215 gal. auxiliary bomb-bay tank.

** Depth Bombs are external; 215 gal. S.S. and 335 gal. droppable tanks carried in bomb-bay.

Torpedo installation is partially external (bomb-bay doors open) and requires torpedo installation rack.

With 215 gal. aux. bomb-bay tank internal offensive armament is limited to 2-1600#, 2-1000#, or 4-500# bombs, or 4-325# depth bombs, or 1 torpedo;

Installation of either droppable bomb-bay tank permits offensive armament to be carried externally only.

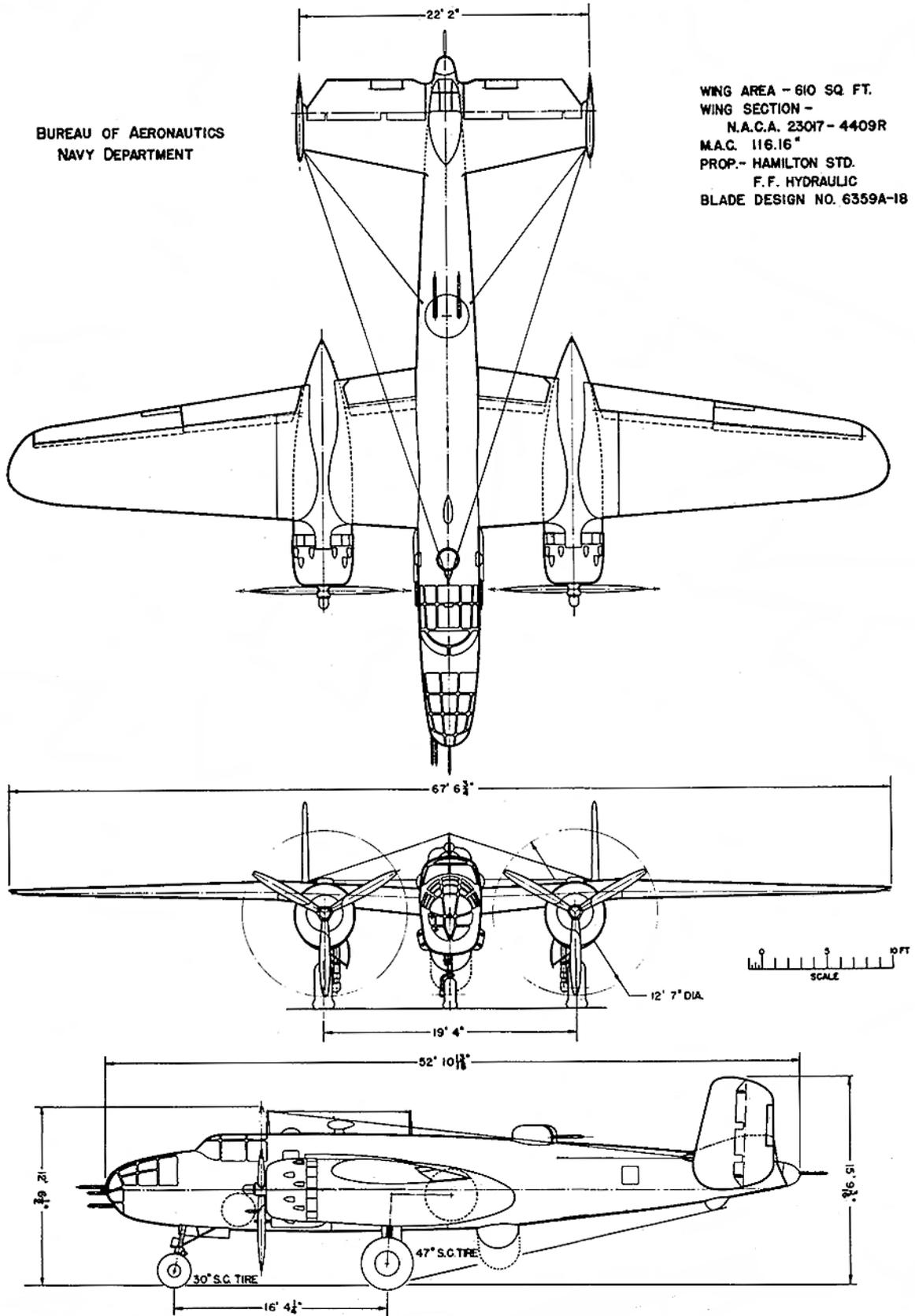


○ LOADING CONDITION COLUMN NUMBER

PERFORMANCE FOR ALL CONDITIONS EXCEPT FERRY ARE COMPUTED WITH THE RADAR NACELLE FULLY EXTENDED. V_{max} . AT AIRPLANE CRITICAL ALTITUDE IS INCREASED APPROXIMATELY 5 ST. MPH. WITH NACELLE RETRACTED.

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 610 SQ. FT.
WING SECTION -
N.A.C.A. 23017 - 4409R
M.A.C. 116.16"
PROP. - HAMILTON STD.
F. F. HYDRAULIC
BLADE DESIGN NO. 6359A-18



BUREAU OF AERONAUTICS
NAVY DEPARTMENT

- ARMOR PLATE
- ▨ SELF-SEALING TANKS
- ⊠ NON SELF-SEALING TANKS

PROTECTION

| | |
|--------------------------|-----------|
| 1. PILOT & CO-PILOT FW'D | 218 LBS. |
| 2. PILOT AFT | 98 LBS. |
| 3. CO-PILOT SEAT & DOOR | 95 LBS. |
| 4. TURRET | 109 LBS. |
| 5. TAIL GUNNER | 72 LBS. |
| 6. SELF-SEALING CELLS | 1321 LBS. |

