

ISSUE OF 3 PAGES
AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT

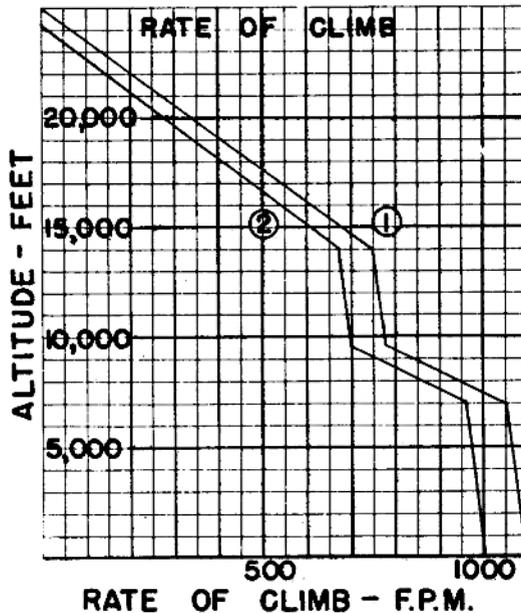
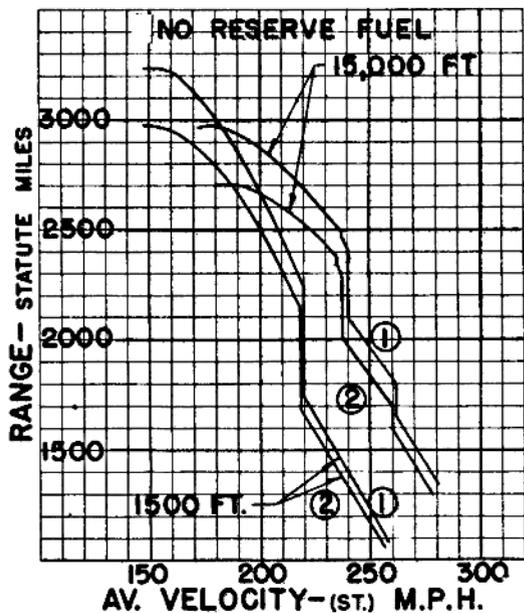
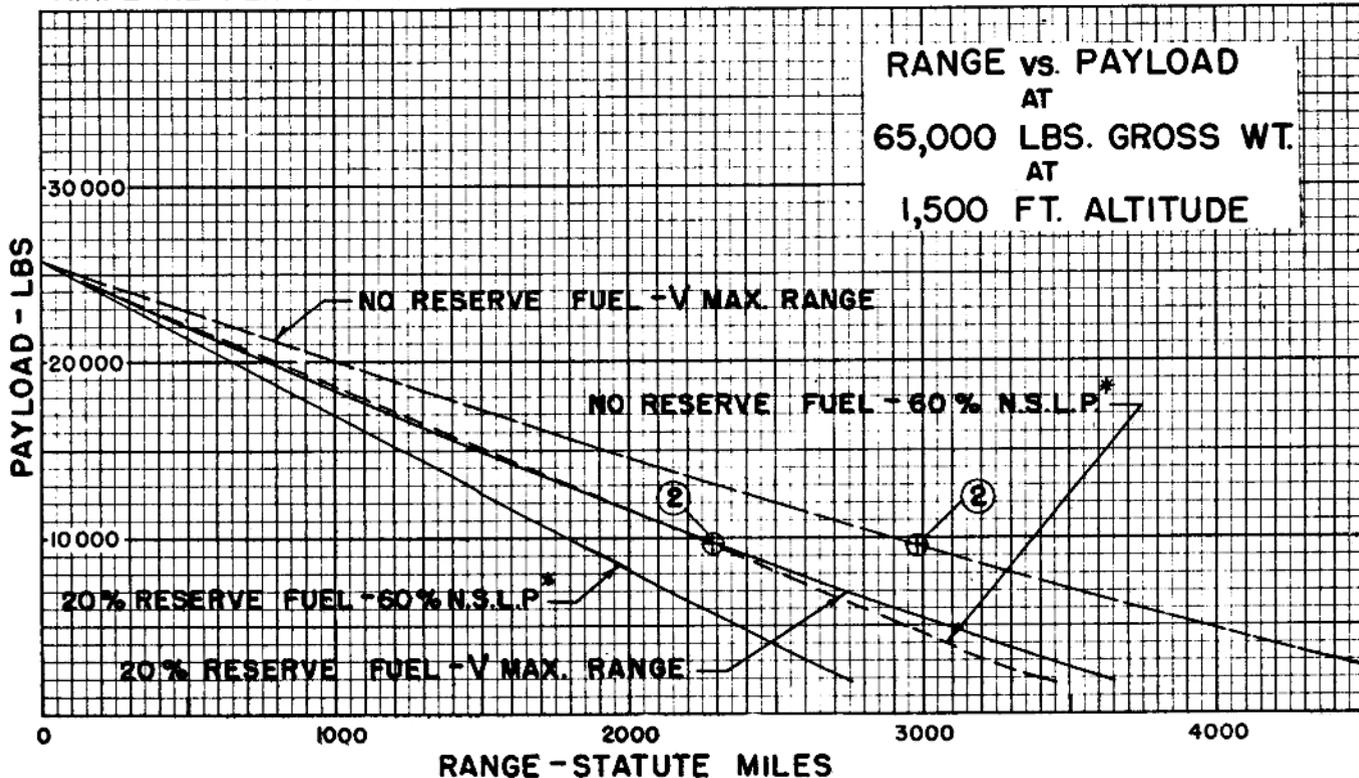
| COLUMN NUMBER | | 1 | 2 | | |
|------------------------------------|---|--|---|--|--|
| LOADING CONDITION | | TRANSPORT 30 TROOPS | CARGO TRANSPORT | | |
| GROSS WEIGHT | LBS. | 62000 | 65000 | | |
| EMPTY WEIGHT | Actual LBS. | 37040 | | | |
| FUEL/OIL | GALS. | 2596/138 | 2500/138 | | |
| FIXED USEFUL LOAD | LBS. | 2145 | | | |
| PAYLOAD | LBS. | 6180 | 9780 | | |
| ENGINE POWER USED FOR PERFORMANCE | | NORMAL | NORMAL | | |
| WING LOADING | LBS./SQ.FT. | 42.4 | 44.5 | | |
| POWER LOADING ① | LBS./BHP. | 15.5 | 16.3 | | |
| V-MAX. SEA LEVEL | MPH. | 253 | 252 | | |
| V-MAX. AIRPLANE CRIT. ALT. | MPH. | 281/15200 | 279/15200 | | |
| V-STALL GROSS WEIGHT ② | MPH. | 82.5 | 84.4 | | |
| V-STALL WITHOUT FUEL ② | MPH. | 71.3 | 73.9 | | |
| TIME-TO-CLIMB -10000FT- | MIN. | 9.9 | 10.8 | | |
| TIME-TO-CLIMB -20000FT- | MIN. | 26.1 | 29.4 | | |
| SERVICE CEILING | FT. | 23500 | 22700 | | |
| TAKE-OFF DISTANCE OVER 50 FT OBST. | FT. | 2400 | 2640 | | |
| TAKE-OFF DISTANCE -15 KN- | FT. | | | | |
| TAKE-OFF DISTANCE -25 KN- | FT. | | | | |
| TAKE-OFF TIME | SECONDS | | | | |
| RATE OF CLIMB -SL- | FT/MIN | 1090 | 1010 | | |
| MAX. RANGE /V-AV. ③ | STMI/MPH. | 3245/152 | 2970/155 | | |
| RANGE /V-AV -60%NSP ③ | STMI/MPH | 2400/211 | 2290/210 | | |
| 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 | N MI. | | | | |
| COMBAT RADIUS | N MI. | | | | |
| ENGINE / PROP GEAR RATIO | | 4 - P&N - R-2000-7/2 to 1 | | | |
| ENGINE RATING BHP/RPM/ALT. | NORMAL | NOTES. | | | |
| | 1100/2550/SL-7000 | PAYLOAD = Cargo, passengers, or baggage. | | | |
| | 1000/2550/9600-14000 | FIXED USEFUL LOAD = Crew, trapped fuel and oil, and equipment. | | | |
| | TAKE - OFF 1350/2700 | WEIGHT EMPTY includes Communicating equipment, De-icing boots, and propeller anti-icing fluid. | | | |
| TANKAGE IN GALLONS | | OIL FUEL | | | |
| AUX. FIXED | PROTECTED | | | Performance with one engine inoperative (propeller feathered, and with flaps and landing gear up) is as follows. | |
| | UNPROTECTED | 138 | 3742 | Gross Weight - 65000# | |
| | TOTAL - FIXED INTERNAL | 138 | 3742 | Rate of climb at SL (T.O. Power) - 770 f.p.m. | |
| | DROPPABLE | | | Service Ceiling (normal power) - 18300 ft. | |
| | DROPPABLE | | | | |
| TOTAL | 138 | 3742 | | | |
| NOTE | STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS | | The performance data are based on flight test. Range and radius is based on engine requirement fuel consumption increased by 15% to conform with past experience. | | |
| | ① BHP AT MAX. CRIT. ALT. | | | | |
| | ② STALL-WITH POWER | | | | |
| | ③ AT 1500' ALTITUDE | | | | |

SUPERSEDES 1 JUNE, 1943

DATE 1 Sept. 1944

AMERICAN AVIATION HISTORICAL SOCIETY ARCHIVES - www.aahs-online.org

MODEL R5D-1

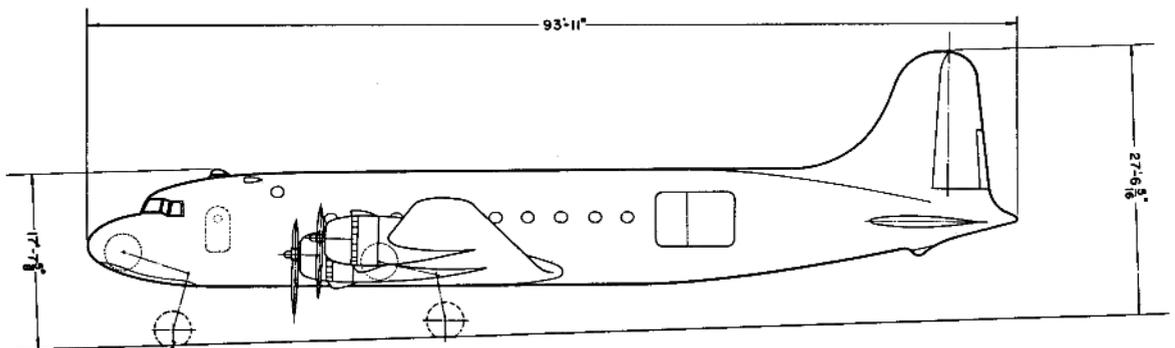
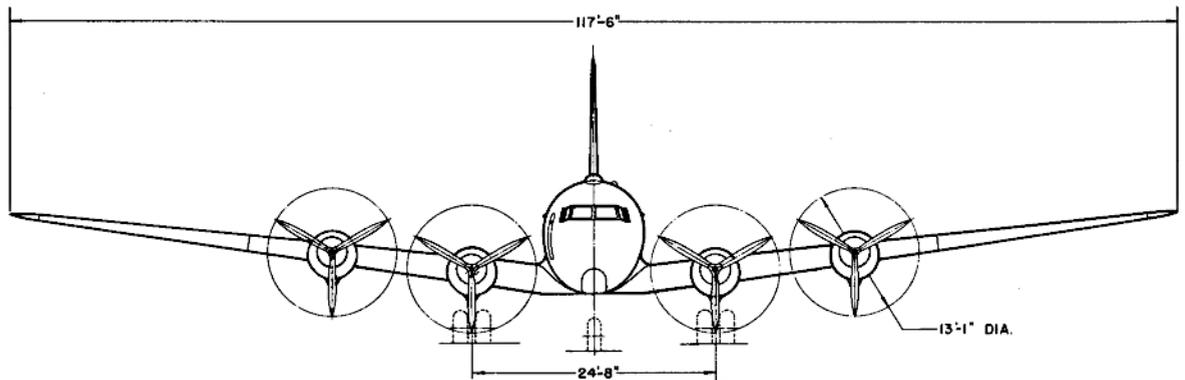
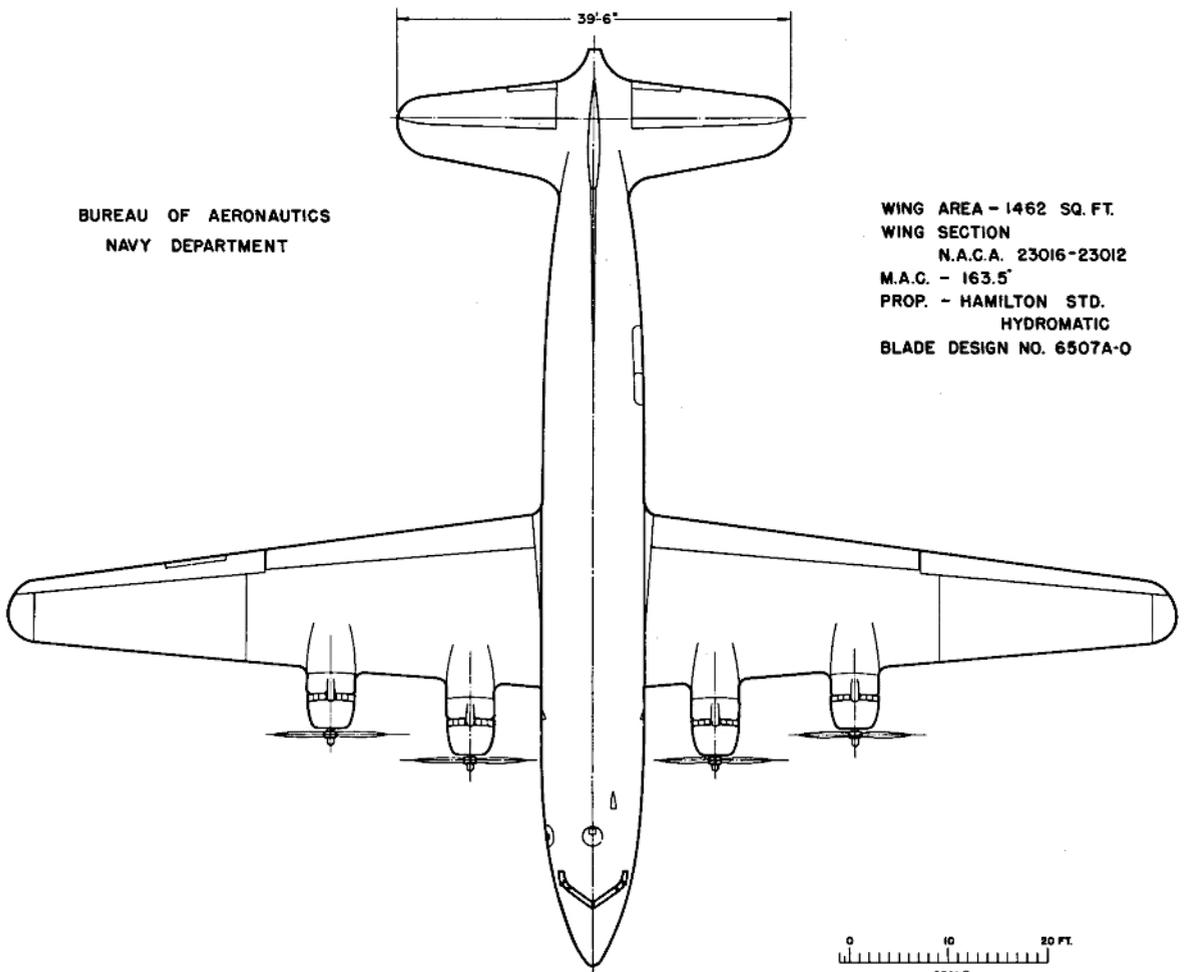


○ LOADING CONDITION COLUMN NUMBER

* NORMAL SEA LEVEL POWER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 1462 SQ. FT.
WING SECTION
N.A.C.A. 23016-23012
M.A.C. - 163.5'
PROP. - HAMILTON STD.
HYDROMATIC
BLADE DESIGN NO. 6507A-0



MODEL R5D-1

BU. OF AERO., NAVY DEPT.
PERFORMANCE DATA

1 JUNE 1943

MODEL R5D-1 LAND

| (A) | CARGO-TRANSPORT | | | | |
|---------------------------------|----------------------|----------|----------|----------|----------|
| GROSS WEIGHT LBS | 62000 | 62000 | 62000 | 65000 | 65000 |
| WEIGHT EMPTY " | 37225 | | | | |
| FUEL/OIL GAL. | 1500/74 | 2500/124 | 3000/138 | 2500/124 | 3700/138 |
| (1) WING/ROSC/MAIN | 13755 | 7380 | 4274 | 10380 | 3074 |
| (2) " " " | 11020 | 17395 | 20501 | 17395 | 24701 |
| WING LOADING | 42.3 | 42.3 | 42.3 | 44.4 | 44.4 |
| POWER LOADING | 15.5 | 15.5 | 15.5 | 16.3 | 16.3 |
| ENGINE | 4 R-2000-7 (2:1) | | | | |
| ENGINE RATING (BHP/RPM/ALT) | NORMAL | | | MILITARY | |
| | 1100/2550/SL-7000 | | | NONE | |
| | 1000/2550/9750-14000 | | | | |
| | 1350/2700/Take-off | | | | |
| ENG. RATE FOR PER | | | | | |
| VM-SEA LEVEL MPH | 251 | 251 | 251 | 250 | 250 |
| - 7000 (NORM) " | 269 | 269 | 269 | 268 | 268 |
| - 9750 " | 265 | | | | |
| - 14000 " | 276 | 276 | 276 | 275 | 275 |
| - 15300 " | 280 | 280 | 280 | 279 | 279 |
| - 20000 " | 260 | | | | |
| - " " | | | | | |
| - " " | | | | | |
| - " " | | | | | |
| CLIMB-S.L. FT/MIN | 1030 | 1030 | 1030 | 950 | 950 |
| - 14000 " | 750 | 750 | 750 | 670 | 670 |
| TIME-10000' MIN | 10.1 | 10.1 | 10.1 | 11.0 | 11.0 |
| - 20000' " | 27.0 | 27.0 | 27.0 | 30.5 | 30.5 |
| SERVICE CEIL. FT | 23500 | 23500 | 23500 | 22600 | 22600 |
| VS-GR. WEIGHT MPH | 82.4 | 82.4 | 82.4 | 84.4 | 84.4 |
| - LESS FUEL " | 76.2 | 71.7 | 69.4 | 74.0 | 68.5 |
| END/60% VM | 12.0/161 | 21.0/161 | 25.4/161 | 19.9/160 | 31.1/160 |
| /75 " " | 8.7/202 | 14.8/202 | 17.8/202 | 14.4/201 | 22.0/201 |
| /90 " " | 4.3/242 | 7.2/242 | 8.7/242 | 7.1/241 | 10.7/241 |
| /VM | 2.8/269 | 4.7/269 | 5.7/269 | 4.7/268 | 7.0/268 |
| MAX END/VAV ⁺ MPH | 12.5/--- | 22.1/--- | 27.2/--- | 20.8/--- | 32.8/--- |
| " RANGE/VAV ⁺ MI/MPH | 1960/167 | 3410/165 | 4170/164 | 3255/167 | 5050/165 |
| TAKE-OFF-CALM FT. | 1180 | 1180 | 1180 | 1340 | 1340 |
| (LAND)-15 KN. " | 791 | 791 | 791 | 906 | 906 |
| -25 KN. " | 575 | 575 | 575 | 664 | 664 |
| TAKE-OFF(SEA) SEC. | --- | --- | --- | --- | --- |

⁺AT 7000 FT.

REMARKS IFF Equipment in all loadings.

Useful Load = (1) + (2)

(1) Cargo, etc.

(2) Crew (6 men), Fuel, Oil, Trapped Fuel and Oil.

BU. OF AERO., NAVY DEPT.
GENERAL DATA

1 JUNE 1943

MODEL R5D-1 LAND.

GENERAL

GROSS WEIGHT _____ LBS. C.G. _____ % M.A.C. C.G. FROM T. L. _____ INS.
MAX. CENTER OF GRAVITY RANGE _____ TO _____ % M.A.C.

SPAN _____ 117'-6" HEIGHT, LEVEL _____ 27'-6"
" , FOLDED _____
LENGTH, LEVEL _____ 93'-10" " , ON WHEELS Tricycle
" , ON WHEELS Tricycle " , " " , FOLDED _____
" , HOIST. ATTITUDE _____

WING AREA _____ 1461 SQ. FT. M.A.C. _____ 163.6 INS.
WING SECTION _____

DISP, MAIN FLOAT _____ LBS. DISP, AUX. FLOAT _____ LBS.
BEAM, MN. FL., HULL _____

PROPELLER

TYPE _____ Ham. Std. C. S. NO. OF BLADES _____ 3
DIAMETER _____ 13'-1" BLADE DEG. NO. _____ 6507

FUEL TANKAGE

FIXED TANKS (PROTECTED) _____ None GALS. TOTAL, FIXED TANKS _____ 3700 GALS.
" " (UNPROTECT) _____ 3700 GALS. " , " (PROT. REMOVED) _____ GALS.
AUX. TANKS, DROPPABLE _____ None

OIL TANKAGE

TOTAL (PROTECT, UNPROTECT) _____ 138* GALS. TOTAL (PROT. REMOVED) _____ 138 GALS.
*Includes 50 Gal. Auxiliary Tank

PROV. FOR BOMBS, ETC.

None

REMARKS