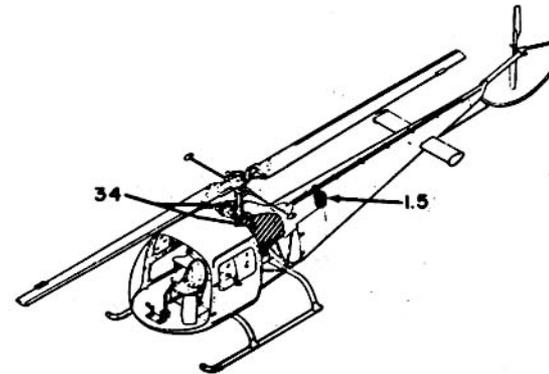
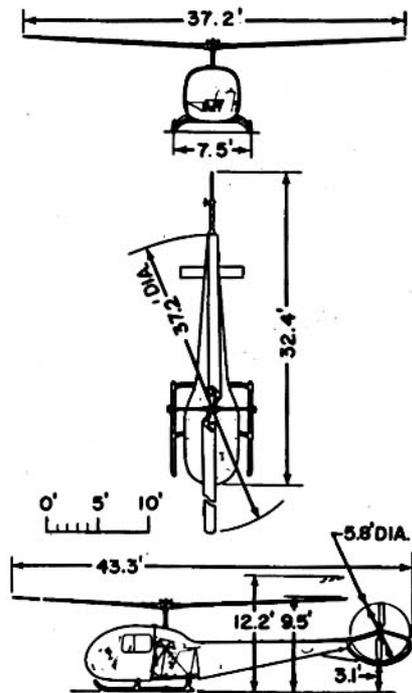




STANDARD AIRCRAFT CHARACTERISTICS

UH-13D



 Fuel (Gal)

 Oil (Gal)

POWER PLANT

NO & MODEL (1) O-435-6
 MFR LYCOMING
 MAIN ROTOR GEAR RATIO 0.111
 TAIL ROTOR GEAR RATIO 0.600

RATINGS

| | BHP | RPM | ALT |
|----------------------|-----|------|-------|
| TAKE-OFF (5 Min.) | 240 | 3200 | 1900' |
| NORMAL | 220 | 3200 | 3600' |

Spec. No. 2207B of
 23 Oct 1957

ACCOMMODATIONS

PILOT 1
 PASSENGERS 3

or

PILOT 1
 LITTERS (Internal) 2
 LITTER ATTENDANT 1

MISSION AND DESCRIPTION

The basic mission of the HUL-1 are the transportation of personnel and supplies and general utility. Kits are provided for incorporation of hoist, litters, floats, winterisation, and staff liaison.

The HUL-1 incorporates a two-blade semi-rigid rotor with stabiliser bar, and a two-blade tail rotor mounted on a delta hinge. The fuselage is seminonocoque with a large enclosed cabin section. The landing gear is of the skid-type with small handling wheels. Provisions are made for carrying litters internally. The communications system provided permits direct contact with ground personnel.

DEVELOPMENT

First Flight January 1956
 Service Use December 1956

WEIGHTS

| LOADING | LBS |
|----------------|------|
| EMPTY | 1652 |
| BASIC | 1681 |
| DESIGN | 2565 |
| MAX T. O. | 2700 |

All weights are actual

FUEL AND OIL

| NO. OF TANKS | GALS | LOCATION |
|---------------------|------------|----------|
| 2 | 35 | Fuselage |
| GRADE | 115/145 | |
| SPECIFICATION | MIL-P-5572 | |

OIL

| | |
|----------------------|------------|
| CAPACITY (Gal) | 3 |
| GRADE | 1065/1100 |
| SPEC | MIL-L-6082 |

DIMENSIONS

| | |
|------------------------|--------------|
| DISC AREA..... | 1085 sq. ft. |
| ROTOR DIA. | 37' 2" |
| BLADE AREA | 34.2 sq. ft. |
| LENGTH (Fuselage)..... | 32' 4" |
| HEIGHT | 9' 6" |
| TREAD | 7' 6" |

ELECTRONICS

| | |
|-----------------------|--------------|
| UHF | ARC- TYPE 12 |
| LF RECEIVER | R-11A |
| UHF RECEIVER | R-19 |
| UHF TRANSVERTER | TV-10 |

| PERFORMANCE SUMMARY | | | | | | |
|--------------------------------|--------------|--|--|--|--|--|
| TAKE-OFF LOADING CONDITION | | (1) GENERAL UTILITY 1 PILOT 3 PASSENGERS | (2) SEARCH AND RESCUE 1 PILOT 2 PASSENGERS | (3) LONG RANGE FERRY 1 PILOT 1-55 GAL. AUX. TANK | | |
| TAKE-OFF WEIGHT | lb. | 2565 | 2451 | 2479 | | |
| Fuel | lb. | 210 | 210 | 540 | | |
| Payload | lb. | 510 | 340 | — | | |
| Disc loading | lb./sq.ft. | 2.26 | 2.26 | 2.28 | | |
| Vertical rate of climb at S.L. | (A)/(B) fpm. | 505/— | 680/120 | 630/70 | | |
| Absolute hovering ceiling | (B) ft. | (C) —/5500 (D) | (C) 4000/6400 (D) | (C) 3200/6200 (D) | | |
| Max. rate of climb at S.L. | (B) fpm. | 890 | 1120 | 1060 | | |
| Service ceiling (100 fpm) | (B) ft. | 14500 | 16400 | 15900 | | |
| Speed at S.L. | (B) kn. | 80 | 81 | 81 | | |
| Max. speed/altitude | (B) kn./ft. | 82/3500 | 83/3500 | 83/3500 | | |
| Combat range | n.mi. | 138 | — | 365 | | |
| Average cruising speed | kn. | 68 | — | 73 | | |
| Cruising altitude | ft. | S.L. | — | 5000 | | |
| Combat radius | n.mi. | — | 71 | — | | |
| Average cruising speed | kn. | — | 72 | — | | |
| Cruising altitude | ft. | — | S.L. | — | | |
| Max. Endurance | hr. | — | 2.49 | — | | |
| Average cruising speed | kn. | — | 40 | — | | |
| Cruising altitude | ft. | — | S.L. | — | | |

NOTES

- (A) TAKE-OFF POWER (5MIN RATING)
 (B) NORMAL RATED POWER
 (C) OUT OF GROUND EFFECT
 (D) IN GROUND EFFECT

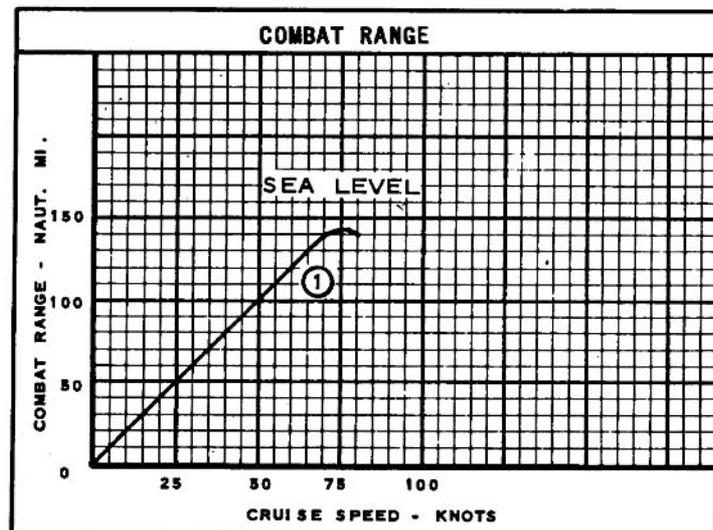
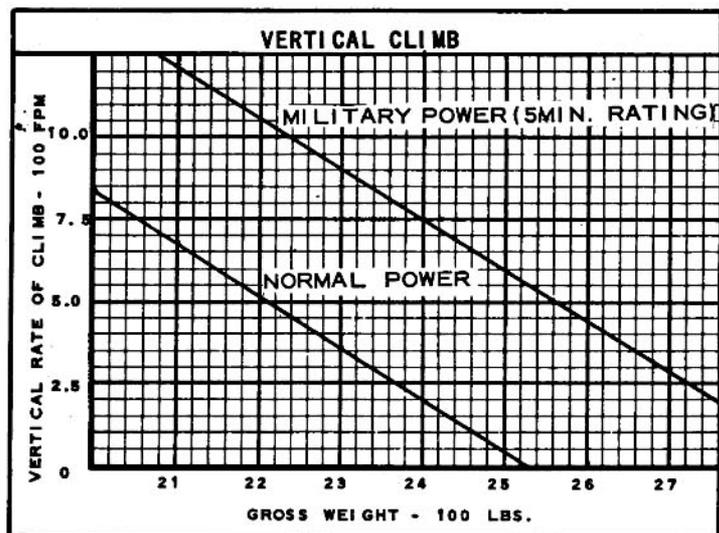
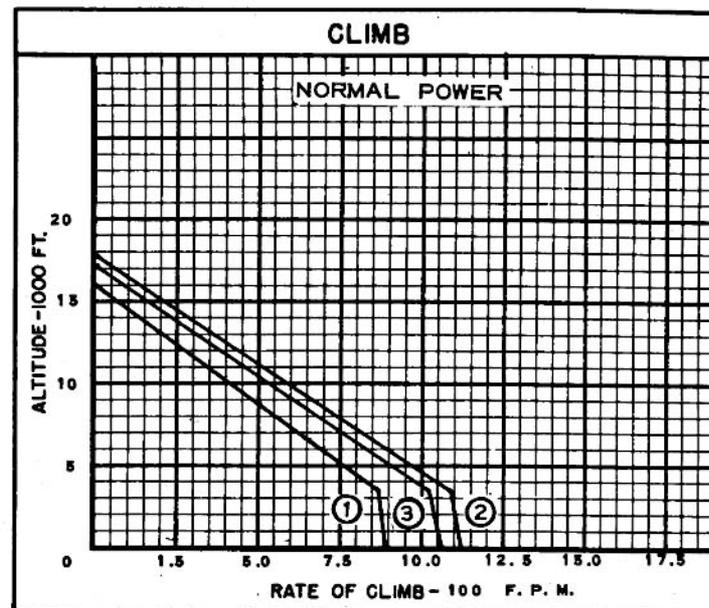
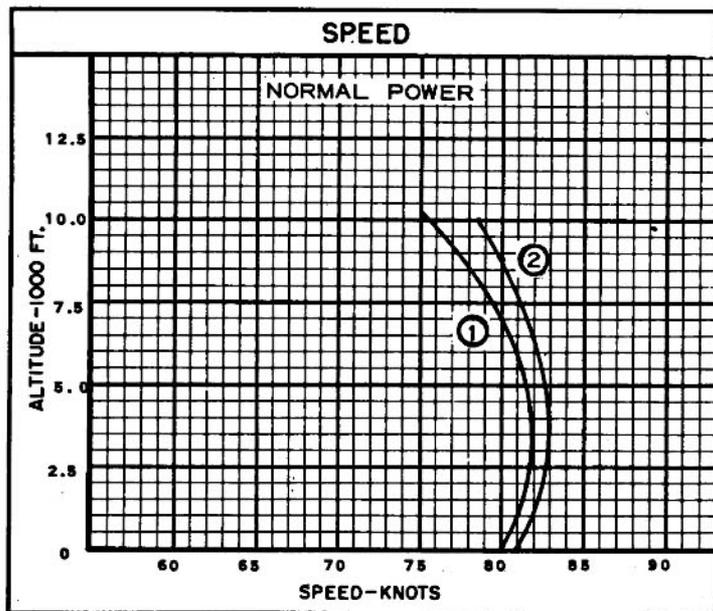
PERFORMANCE is based on NATESTGEN evaluation of the Model HUL-1 Helicopter
 RANGE, RADIUS, and ENDURANCE are based on NATESTGEN fuel consumption tests of the Model HUL-1 Helicopter
 All performance data presented is for the skid gear configuration.

GENERAL UTILITY MISSION

WARM-UP AND TAKE-OFF: 5 minutes at Normal Rated Power
 CRUISE OUT: At sea level at 80% Normal Rated Power
 RESERVE: 10% of initial fuel load

SEARCH AND RESCUE RADAR MISSION

WARM-UP AND TAKE-OFF: 5 minutes at Normal Rated Power
 CRUISE OUT: At sea level at best cruise speed
 PICK-UP SURVIVOR: Hover 2 minutes at sea level at Normal Rated Power
 CRUISE BACK: At sea level at best cruise speed
 RESERVE: 10% of initial fuel load



○ LOADING CONDITION COLUMN NUMBER

NOTES

SEARCH AND RESCUE ENDURANCE MISSION

WARM UP AND TAKE-OFF: 5 Minutes at NRP
CRUISE OUT: At sea level at speed for maximum endurance
PICK-UP SURVIVOR: Hover 2 minutes at sea level at NRP
CRUISE BACK: At sea level at speed for maximum endurance
RESERVE: 10% of initial fuel load

LONG RANGE FERRY MISSION

WARM UP AND TAKE-OFF: 5 minutes at NRP
CLIMB: to 5000' at NRP
CRUISE OUT: at 5000' at speed for best range
RESERVE: 10% of initial fuel load

○ LOADING CONDITION COLUMN NUMBER