Standard Aircraft Characteristics

NAVY MODEL
UH-1N
AIRCRAFT

THIS PUBLICATION SUPERSEDES
NAVAIR 00-110AH1-3 DATED JULY 1974

PUBLISHED BY DIRECTION OF THE
COMMANDER OF THE NAVAL AIR SYSTEMS COMMAND

AUGUST 1974
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STANDARD AIRCRAFT CHARACTERISTICS

UH-1N

BELL

T400-CP-400 ENGINE

AUGUST 1974
Disc Area 1809.0 sq ft
Blade Area 93.3 sq ft
Engine/Rotor Gear Ratio 20.38:1
Airfoil Section (Root to 80%) 10.8% thick (80% to Tip) Tapers to 3.4% thick at tip, modified droop shoot.
Chord (Root to Tip) = 23 3/8 in

FUEL (GAL) *Auxiliary fuel tanks OIL (GAL)
POWER PLANT

No. & Model: (1) T640-CP-409
Manufacturer: United Aircraft of Canada
Engine Spec. No.: 732 C
Type: Twin Section Free Power Turbine with Reduction Gearbox
Main Rotor: 20,383.1
Tail Rotor: 3,974.1

RATINGS

HP RPM ALB
Intermediate 1300 6600 SL
Max. Continuous 1530** 6600 SL
Single Power Section Intermediate 900 6600 SL
Max. Continuous 765 6600 SL
Transmission Limits 1200 HP
**1134 HP

MISSION AND DESCRIPTION

The basic missions of the UH-1N are visual observation and target acquisition, reconnaissance, and command control. The UH-1N is capable of flight from established airfields, carriers of the LPH and CVE, and areas with individual landing platforms or limited landing facilities, and from unprepared fields. It may be handled on carrier elevators without any folding of components.

In addition, the UH-1N may be used for medical evacuation, to transport personnel, special teams or crew and supplies. These missions may be performed under instrument operations including light icing and day or night flight.

The twin power section installation improves both hot day and altitude performance.

The semi-monocoque fuselage is of all metal construction as are the tail rotor blades and the two main rotor blades. The large sliding door along each side allows rapid entry and exit and simplified straight-through loading from either side or both sides simultaneously. The knee-high cargo floor also contributes to loading ease.

WEIGHTS

<table>
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<tr>
<th>Loading</th>
<th>Weight</th>
<th>L.F.</th>
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<td>Operating</td>
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<td>Combat</td>
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<tr>
<td>Overload</td>
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<tr>
<td>Maximum Takeoff</td>
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<tr>
<td>Maximum Landing</td>
<td>10,500</td>
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</table>

*UH-1N (Navy) is 91 lbs. heavier

FUEL AND OIL

FUEL

5 Gall. No. of Tanks Locations
300.0* 5 Fuselage
350.0 2 Fuselage
Fuel Grade: JF-4 JF-5
Fuel Spec.: MIL-D-24444
* Estimated with tons.

OIL

Engine (Gall.): 3.2
Spec.: MIL-L-7808

DEVELOPMENT

Contract Placement: September 1969
First Flight (Com. 212): April 1969
(CEAF UH-1N): March 1970
(USN UH-1N): January 1971
First Delivery: March 1971
Final Delivery: In Production

DIMENSIONS

Rudder Diameter 48.0'
Length
Rotor Operating 57.3'
Rotor Static 57.3'
Fuselage 42.4'
Span (Max Lateral) 22.5'
Height 14.9'
Tread 8.5'
Ground Clearance
(Static, Against Stops) 7.0'

ACCOMMODATIONS

Crew (Observation): 4
Cabin Size Clearance:
Length (Overall) 7.6'
Width (Maximum) 7.7'
Height (Maximum) 4.1'
Usable Volume
Cargo Area 220 Cu-ft
Copilot Area 20 Cu-ft
Provision for Troop Seats: 6
Provision for Litters: 6
Cargo Hook Capacity: 5,000 Lb.
Limit Floor Loading: 100Lb/sq. ft.
at L.F. 3.5

ELECTRONICS

VHF-FM Radio Set AN/ARC-114
Attenuator Encoder AN/AI-21/A
UHF-Radio Set AN/ARC-116
Communication Sys C-5931/ARC
Gyromag Compass Set AN/ADM-43
UHF Dir Find Sys AN/AM-50
TACAN Navigation Set AN/AM-105
Transponder Set AN/AMQ-2
Radar Warning Set AN/ARC-102
Auto Direct Finder AN/AMX-69
Radar Altimeter AN/RM-171(Y)
Transponder Test Set TS-18N-34/AMX

PROVISIONS FOR

Loudspeaker System Kit TBRC/XY-28
Common Security Set AN/ARC-135
UHF-Radio Set AN/RM-135
Mark XII Computer KTT-1A/TBRC

AUGUST 1974

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## PERFORMANCE SUMMARY

<table>
<thead>
<tr>
<th>TAKE-OFF LOADING CONDITION</th>
<th>Observation</th>
<th>Rescue</th>
<th>Medical Evacuation</th>
<th>Troop Transport</th>
<th>External Transport</th>
<th>Ferry</th>
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<tr>
<td><strong>TAK-E-OFF WEIGHT</strong></td>
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<td>Absolute hovering ceiling (OOG)</td>
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<td>Combat radius</td>
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<td>Range</td>
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<td>Maximum endurance</td>
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<td>Endurance speed</td>
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</tbody>
</table>

## NOTES

(a) Take-off Transmission rating of 1250 HP
(b) Military E ted Power
(c) Maximum Continuous Power
(d) Avg. Mission Time - Time in air (excludes time before start of exroute climb and reserve, unless otherwise specified and noted).
NAVAIR 00-441-3

SERVICE

LOADING CONDITION COLUMN NUMBER

UH-1N

AUGUST 1974

OBSERVATION

DATA

NOTES

PROOF

EXTERNAL TRANSITION

INTERIOR TRANSITION

PRACTICE MENTION

1. Warm up and take-off.
   2. Full allowance of 5 minutes at sea level.
   3. 10 minutes at full continuous power at sea level.

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