### NAVAIR 00-110AH1-2

## Standard Aircraft Characteristics

NAVY MODEL UH-1E(540) AIRCRAFT

THIS PUBLICATION SUPERSEDES
NAVAIR 00-110AH1-2 DATED JULY 1974

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#### NAVAIR 00-110AH1-2

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NAVAIR 00-110AH1-2 SERVICE



# STANDARD AIRCRAFT CHARACTERISTICS

UH-1E(540) BELL

AUGUST 1974 1 UH-1E (540)

NAVAIR 00-110AH1-2 SERVICE 1520.0 sq ft Airfoil Section(Root to Tip) 99.0 sq ft 9-1/3% Sym. Section Special 20.4:1 Chord(Root to Tip)=27.0 in. Disc Area Blade Area Engine/Rotor Gear Ratio \_350.0 fustliery Cenk 13.21 Fuel (Gal) Oil (Gal) -TAILBOOM SECTION-TANKAGE **DESCRIPTIVE ARRANGEMENT** 

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AUGUST 1974

UH-1E (540)

NAVAIR 00-110AH1-2 SERVICE

POWER PLANT	MISSION AND DESCRIPTION	WEIGHTS		
No. and Model	The basic mission of the UH-1E(540) are visual observation and target acquisition, reconnaissance and command control. The UH-1E (540) is capable of flight from established airfields, carriers of the LPH and CVS class, advanced bases, areas of ships with individual landing platforms of limited landing facilities, and from unprepared fields. It may be handled on carrier elevators without any folding of components.  In addition, the UH-1E(540) may be used for medical evacuation, to transport personnel, special teams or crews, equipment and supplies. By the attachment of appropriate weapons it is possible to deliver point target and area fire.  The gas turbine p owered UH-1E(540) is of compact design having a low silhouette. The two-bladed main and tail rotors are of all metal construction. The fuselage is of semi-monocoque construc-	LOADING LB. L.F.  Empty 5450 Basic 5610 Design 6600 3.0 Combat 7029* 2.3 Max. T.O. 9500 2.1 Max. Land 9500  *For Basic Mission		
MIL. 1000 115 6610 30	tion.	FUEL AND OIL		
NOR. 900 107 66 <b>0</b> 0 Cont.	The cabin has large sliding doors, allowing straight-through loading. Litters may be loaded from either side or from both			
ELECTRONICS  UHF Transceiver AN/ARC-52  LF Automatic Direction Finder AN/ARN-59  HF-AM/SSB Transceiver AN/ARC-94  Intercommunications  System AN/AIR-14  Gyro Compass System AN/ARC-44  UHF Homing Group AN/ARA-25A  IFF Radar Identification Set AN/APX-6B  Coder Group AN/APX-89  TACAN Radio Set AN/ARN-52(V)	sides simultaneously. The cargo floor is knee high for easy loading. The copilot's controls are easily removed; thus providing accomodations for a passenger in the copilot seat or when the copilot seat is removed, an additional 8.75 square feet of cargo area for a total of 47.2 square feet.  DEVELOPMENT  Fifty-two (52) production articles procured for the Department of the Navy.  Contract Placement Jun 1965 First Delivery Jan 1966  First Flight Dec 1965 Final Delivery Nov 1966	FUEL  LOCATION NO. TANKS GALS.  Fuselage 2 242.0  Fuselage, Ferry 1 350.0  Grade JP-4, JP-5  Specification MIL-J-5624D  OIL  Fuselage 3.8  Specification MIL-L-7808D		
	DIMENSIONS	ACCOMMODATIONS		
	Rotor Diameter 44.0' Length Rotors Operating 52.9' Rotors Static 52.9' Fuselage 39.5' Span (Max. Lateral) 9.0' Height 14.7' Tread 8.4' Rotor Ground Clearance (Static, Against Stops) 6.9'	Crew (Observation)		

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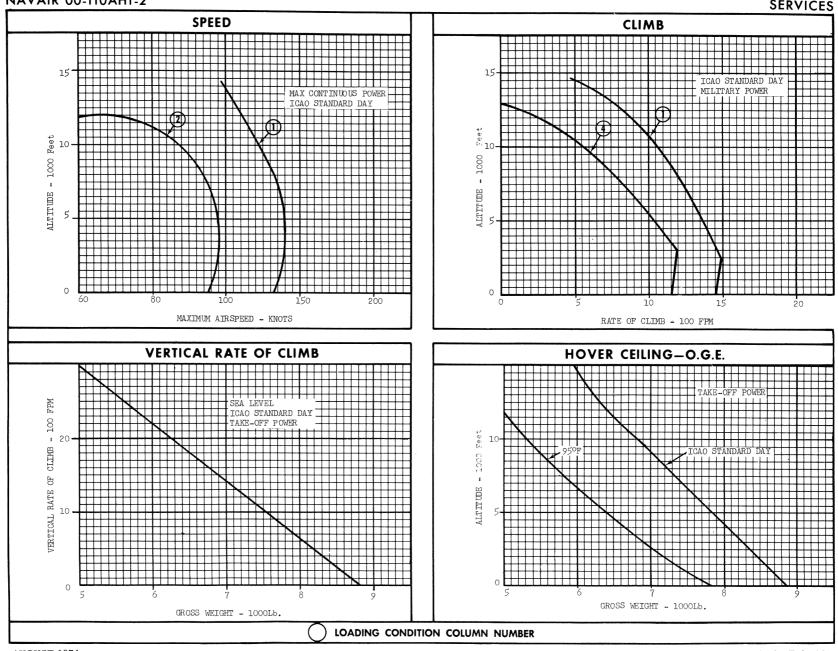
PERFORMANCE SUMMARY						
TAKE-OFF LOADING CONDITION	1 CLEAN	2 TRANSPORT CARGO	3 OVERLOAD TRANSPORT CARGO	MEDICAL EVACUATION	5 FERRY	
TAKE-OFF WEIGHT 1b	7687	8287	8500	7749	9500	
Fuel internal (JF-5) lb./lb	1645	1645	1645	1.645	3€58	
Payload lb	. 0	800	1013	400	Э	
Disc loading lb./sq.ft	5.05	5.45	5.59	5.09	6.25	
Vertical rate of climb et S.L. (A) fpm	930	450	280	900	o	
Absolute hovering ceiling (CGE) (A) ft	. 5800	2600	1500	5500	0 ·	
Max. rate of climb at S.L. (A) fpm	. 1470	1260	1175	1440	890	
Service ceiling (B) ft	15100	12700	11800	14900	0003	
Speed at S.L. (B) km	. 113	111	110	114	104	
Max. speed/altitude (B) kn./ft	. 117/4000	113/4000	112/3000	117/4000	105/2000	
O.E.I. Service ceiling ft		-	-	-	-	
Min. speed (O.E.T.) kn	-	-	-	-	-	
Max. Speed (O.F.I.) kn	-	-	-	-	-	
Combat radius n.mi	. 11 <i>6</i>	116	115	122	-	
Mission time (C) hrs	2.13	2.09	2.08	2.15	-	
Average cruising speed kn	. 113	113	112	120	-	
Cruising altitude ft	. SL	∂L	SIr	5000	-	
Runge n.mi	. 221	216	214	-	634	
Average cruising speed kn	. 113	112	112	-	105	
Cruising altitude ft	. SL	SL	ST	-	1000	
Maximum endurance HRS	3.12	2.76	-	-	-	
Endurance speed kn	. 45	- /	-	-	-	
Endurance altitude ft	. SL	SL	-	-	-	

#### **NOTES**

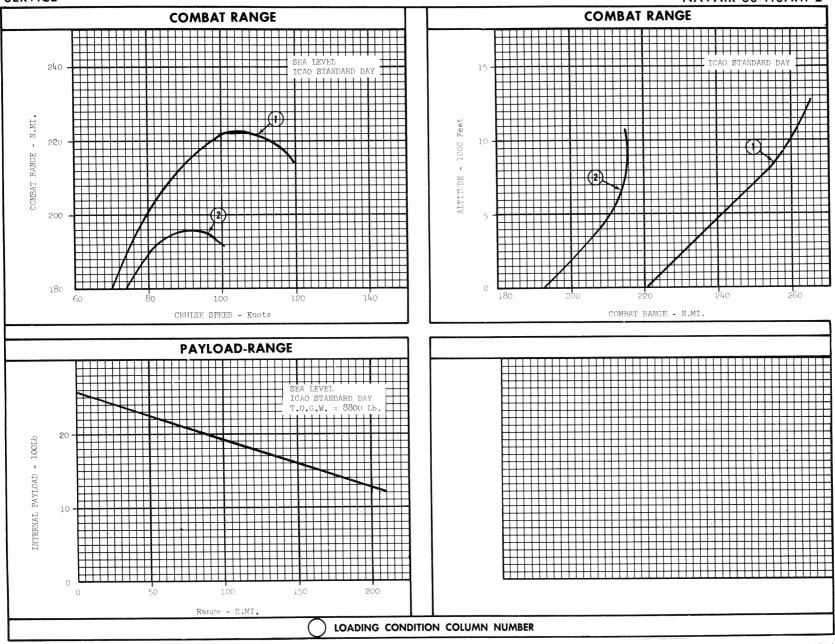
- (A) Military rated power
  (B) Maximum continuous power
- (c) Missier time Time in air (excludes time before start of enroute climb and reserve, unless otherwise specified and noted.)

#### Performance Basis:

- (1) All performance at standard day conditions.
  (2) Aerodynamic flight test data.
  (3) Engine specification fuel consumption increased 5%.



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