

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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COMMANDER OF THE NAVAL AIR SYSTEMS COMMAND

AUGUST 1974

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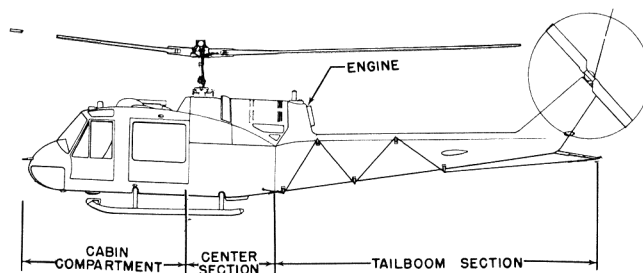
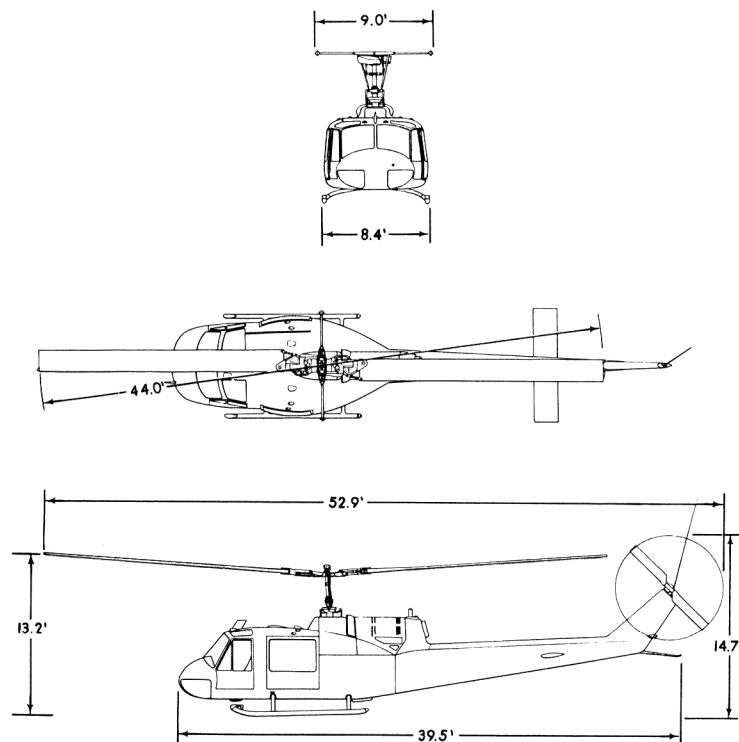
STANDARD AIRCRAFT CHARACTERISTICS

UH-1E(540)

BELL

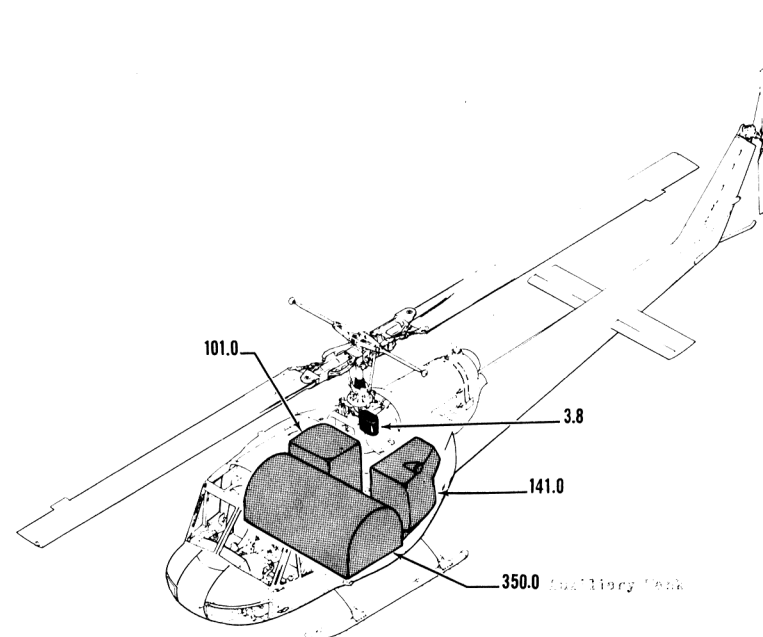
SERVICE

NAVAIR 00-110AH1-2



DESCRIPTIVE ARRANGEMENT

Disc Area	1520.0 sq ft	Airfoil Section(Root to Tip)
Blade Area	99.0 sq ft	9-1/3% Sym. Section Special
Engine/Rotor Gear Ratio	20.4:1	Chord(Root to Tip)=27.0 in.



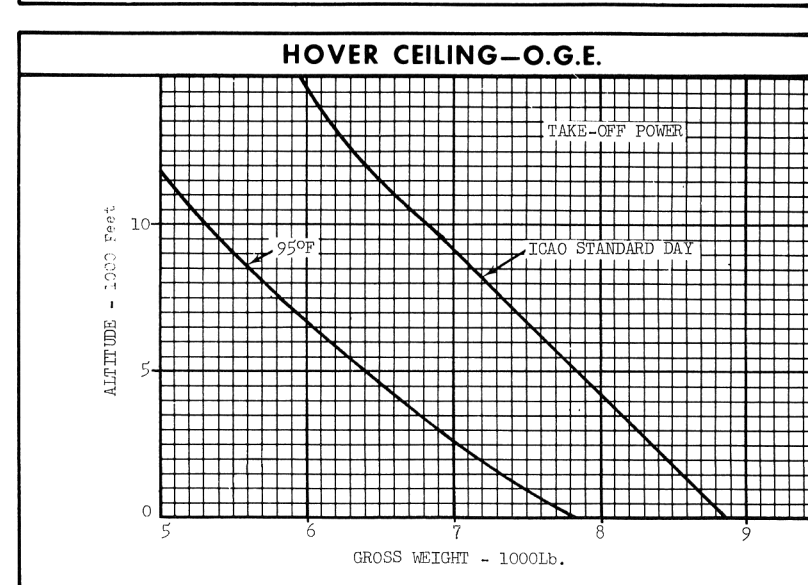
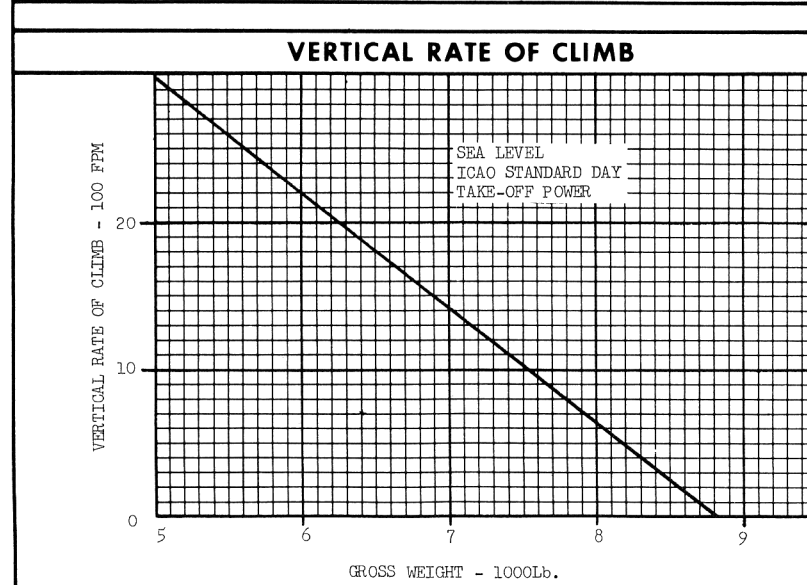
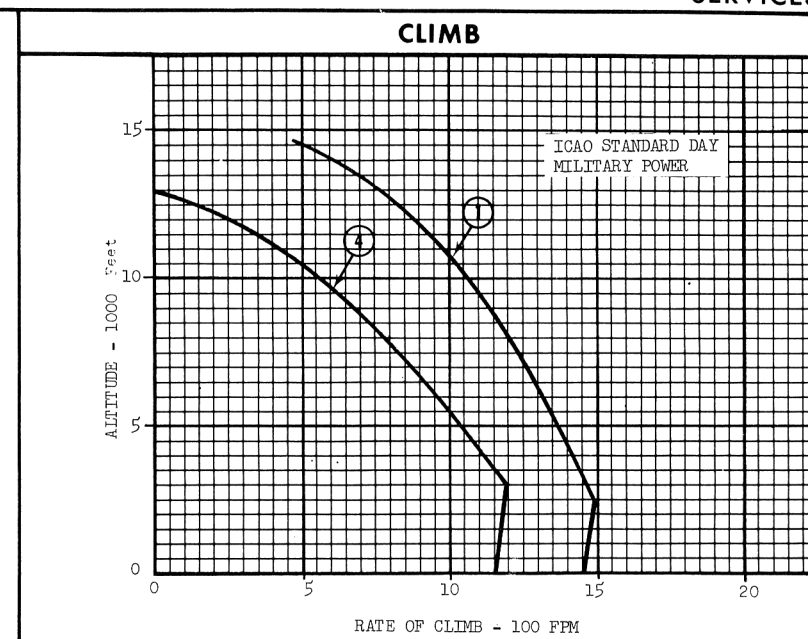
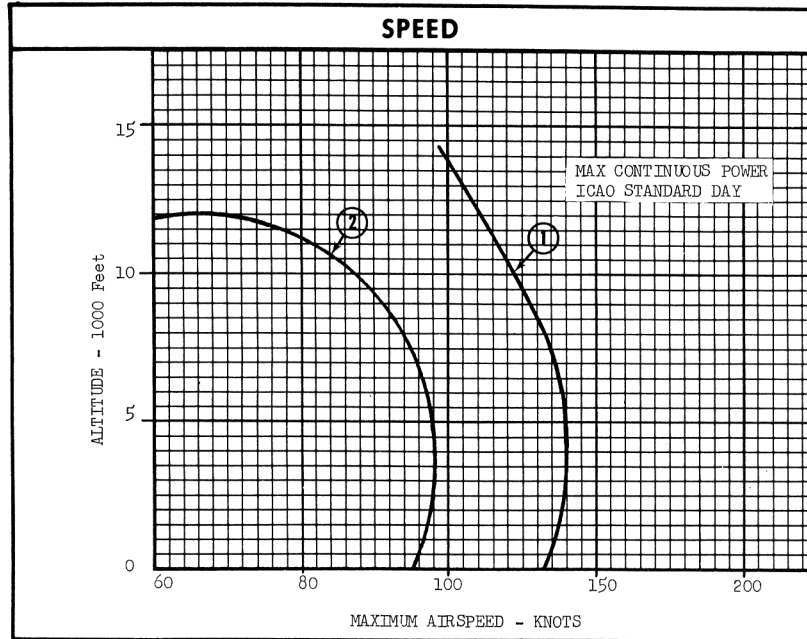
Fuel (Gal)

Oil (Gal)

TANKAGE

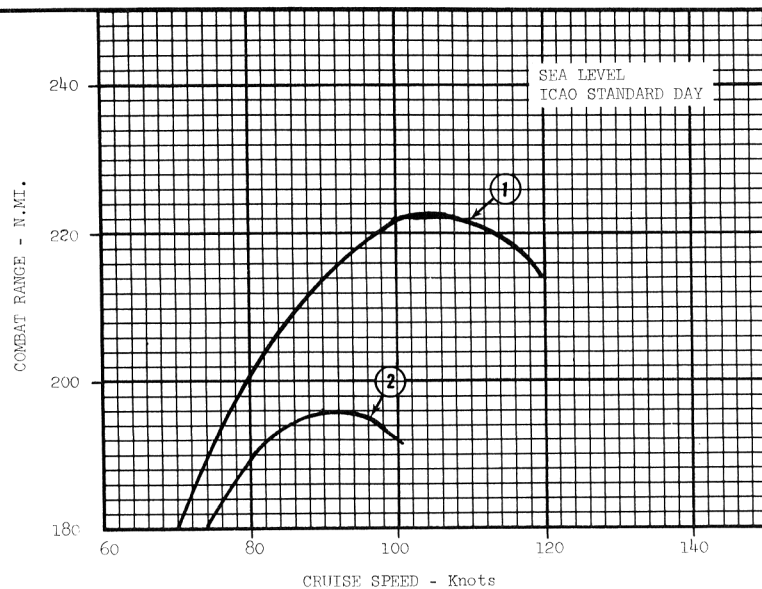
AUGUST 1974

PERFORMANCE SUMMARY										
TAKE-OFF LOADING CONDITION	①	CLEAN	②	TRANSPORT CARGO	③	OVERLOAD TRANSPORT CARGO	④	MEDICAL EVACUATION	⑤	FERRY
TAKE-OFF WEIGHT	lb.	7687		8287		8500		7749		9500
Fuel internal (JP-5)	lb./lb.	1645		1645		1645		1645		3656
Payload	lb.	0		800		1013		400		0
Disc loading	lb./sq.ft.	5.05		5.45		5.59		5.09		6.25
Vertical rate of climb at S.L. (A)	fpm.	930		450		280		900		0
Absolute hovering ceiling (OGE) (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		8000
Speed at S.L. (B)	kn.	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.	116		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		SL		SL		5000		-
Range	n.mi.	221		216		214		-		634
Average cruising speed	kn.	113		112		112		-		105
Cruising altitude	ft.	SL		SL		SL		-		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) Mission 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%.										

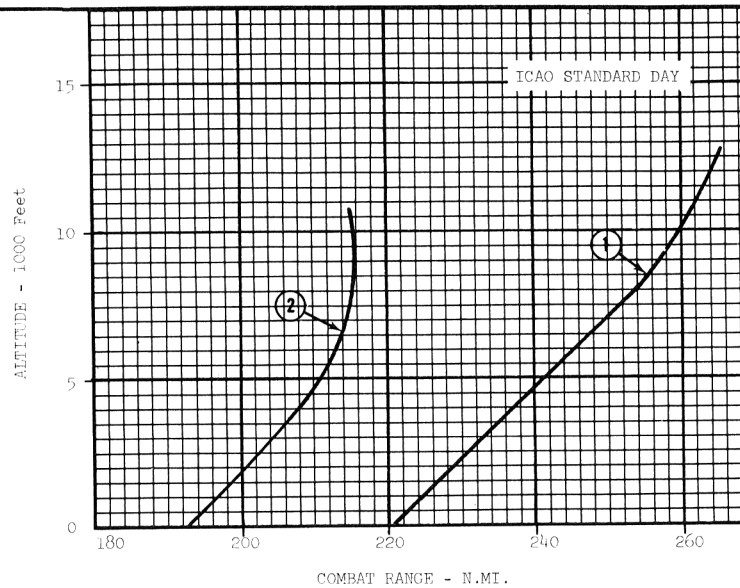


○ LOADING CONDITION COLUMN NUMBER

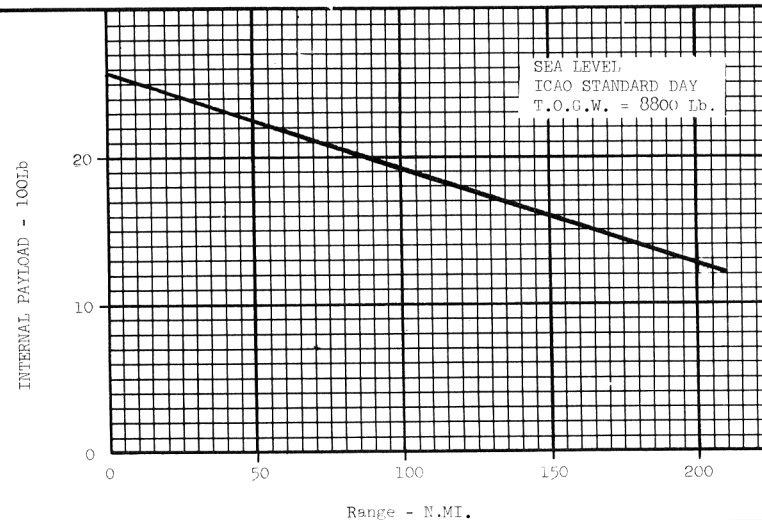
COMBAT RANGE



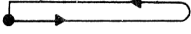
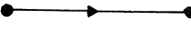
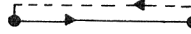
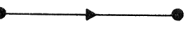
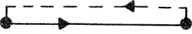
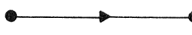
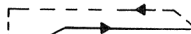
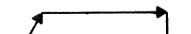
COMBAT RANGE



PAYLOAD-RANGE



LOADING CONDITION COLUMN NUMBER

NOTES				
① CLEAN	② TRANSPORT CARGO	③ OVERLOAD TRANSPORT CARGO	④ MEDICAL EVACUATION	⑤ FERRY
<p>RADIUS MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: At speed for best range at sea level. 3. Hover: 5 minutes out of ground effect at mid-mission. 4. Cruise back: To home base at speed for best range at sea level. 5. Landing Reserve: Fuel for 20 minutes at speed for maximum range at sea level. <p>RANGE MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: To remote base speed for maximum range at sea level. 3. Landing Reserve: Fuel for 30 minutes at speed for maximum range at sea level. 	<p>RADIUS MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: To remote base at speed for maximum range at sea level. 3. Land and unload payload: Mid-point fuel allowance of 2 minutes at maximum continuous power at sea level. 4. Cruise back: To home base at speed for maximum range at sea level. 5. Landing reserve: Fuel for 20 minutes at speed for maximum range. <p>RANGE MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: To remote base speed for maximum range at sea level. 3. Landing Reserve: Fuel for 30 minutes at speed for maximum range at sea level. 	<p>RADIUS MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: To remote base at speed for maximum range at sea level. 3. Land and unload payload: Mid-point fuel allowance of 2 minutes at maximum continuous power at sea level. 4. Cruise back: To home base at speed for maximum range at sea level. 5. Landing reserve: Fuel for 20 minutes at speed for maximum range. <p>RANGE MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Cruise out: To remote base speed for maximum range at sea level. 3. Landing Reserve: Fuel for 30 minutes at speed for maximum range at sea level. 	<p>RADIUS MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Climb out: On course at speed for best climb at intermediate power to 5000 feet. 3. Cruise out: To remote base at 5000 feet at maximum continuous power. 4. Descend to sea level: No fuel used, no distance gained. 5. Land and pick up two (2) litter patients: Mid-point fuel allowance of 2 minutes at maximum continuous power at sea level. 6. Climb back: On course at best climb speed at maximum continuous power. 7. Cruise back: To home base at 5000 feet at maximum continuous power. 8. Descend to sea level: No fuel used, no distance gained. 9. Landing reserve: Fuel for 20 minutes at speed for maximum range at sea level. 	<p>RANGE MISSION</p>  <ol style="list-style-type: none"> 1. Warm-up and take-off: Fuel allowance of 5 minutes at maximum continuous power at sea level. 2. Climb out: On course at best climb speed at intermediate power to optimum cruise altitude not to exceed 10,000 feet (unless limited by cruise ceiling). 3. Cruise out: To remote base at speed for maximum range at optimum cruise altitude not to exceed 10,000 feet (unless limited by cruise ceiling). 4. Descend to sea level: No fuel used, no distance gained. 5. Landing reserve: Fuel for 30 minutes at speed for maximum range at sea level.
○ LOADING CONDITION COLUMN NUMBER				