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PREFLIGHT - Power-Up Checklist

- | | |
|---|--------------------|
| 1. ALL DC CIRCUIT BREAKERS (Default) | IN |
| <i>OVERHEAD CONSOLE & BREAKER PANEL (LEFT FOOT)</i> | |
| 2. DOME LIGHTS (Recommended: Green) | AS REQUIRED |
| 3. PITOT HEAT (Default) | OFF |
| 4. EXTERNAL & ANTI -COLLISION LIGHTS | ON |
| 5. POSITION LIGHTS (Recommended: Steady) | AS REQUIRED |
| 6. CARGO RELEASE | OFF |
| 7. WIPERS (Default) | OFF |
| 8. CABIN HEAT/BLEED AIR (Default) | OFF |
| 9. CABIN LIGHTING | AS REQUIRED |
| 10. AC POWER | AC PHASE |
| 11. INVERTER (Default) | OFF |
| 12. DC POWER (Flip Cover) | MAIN GEN to ON |
| 13. VM | ESS-BUS |
| 14. NON ESS BUS (Default) | NORMAL ON |
| 15. STARTER GENERATOR (Default) | ON |
| 16. BATTERY | ON |
| 17. LOW RPM SWITCH | OFF |
| 18. FIRE WARNING INDICATOR | TEST |
| 19. CAUTION/WARNING LIGHTS | TEST & RESET |
| 20. ARMAMENT & COUNTERMEASURE PANEL (Default) | OFF/SAFE |
| 21. JETTISON SWITCH (Default) | DOWN/COVERED |
| 22. GOV SWITCH (Default) | AUTO |
| 23. DE-ICE SWITCH (Default) | OFF |
| 24. MAIN FUEL SWITCH | ON |
| 25. FORCE TRIM | ON |
| 26. HYD CONT | ON |
| 27. CHIP DET (Default) | BOTH |
| 28. IFF TRANSPONDER MASTER | STBY |
| 29. CHECK FLIGHT CONTROLS | RESPONSE TO INPUT |
| 30. SET ALTIMETER | AIRFIELD ELEVATION |



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STARTUP - Engine Start Checklist

31. SET THROTTLE TO IDLE-START POSITION

"IDLE RELEASE" switch pressed down. Safety gate is now off to prevent from shutting down the engine. Use "PAGE UP" to throttle all the way to fully open. Use "PAGE DOWN" to throttle back to the "START" position. You will know you have reached this position when the "IDLE RELEASE" switch pops up.

32. START ENGINE

*Lower Collective, press and HOLD START SWITCH (HOME key)
Wait until N1 RPM reaches 40%, RELEASE START SWITCH
(DO NOT HOLD for more than 40 seconds or 760°C for 5 seconds)
Wait until N1 RPM reaches 68%-72%*

33. INVERTER

MAIN ON

34. STARTER GEN

STBY GEN

35. VERIFY CORRECT ENGINE OPERATION

(in the Green)

*EXHAUST GAS TEMPERATURE (EGT) (in the green)
ENGINE TEMPERATURE < 100°C
ENGINE PRESSURE (in the green)
TRANSMISSION TEMPERATURE < 110°C
TRANSMISSION PRESSURE (in the green)*

36. VERIFY CORRECT AC & DC OPERATION

112V to 118V, 27V to 28.5V

37. RADAR ALTIMETER (Power switch overhead panel)

ON

*Rotate left knob to activate radar altimeter
Click right knob test switch
Rotate left & right knobs to set the LOW & HIGH warnings.*

38. ARMAMENT AND COUNTERMEASURE PANELS

ON

FLARE/ROCKET INDICATORS (SET MANUALLY)

39. PITOT HEAT

AS REQUIRED

40. RADIO COMPASS

SYNC WITH MAGNETIC

41. RADIOS

AS REQUIRED

42. DOORS

CLOSE

NOTE: Doors need to be open to communicate with Ground Crew.

43. BEFORE TAKE-OFF CHECK

*RPM Set @ 6600 (Full throttle)
Check Engine, Transmission, Electrical and Fuel
Check Avionics (As required) - Xponder, Radios, Navigation
Final Check of Crew, Passenger and Mission Equipment*

YOU ARE NOW READY TO TAXI AND TAKEOFF



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SHUTDOWN - Engine Shutdown Checklist

- | | |
|--|--------------|
| 1. THROTTLE | IDLE |
| 2. FORCE TRIM | ON |
| 3. PITOT HEATER
<i>PITOT HEAT to ON position. Note slight load meter increase, then off.</i> | CHECK |
| 4. INVERTER
<i>Check for inverter caution light goes ON.</i> | OFF |
| 5. INVERTER
<i>Caution Light should now be off.</i> | SPARE |
| 6. MAIN GENERATOR
<i>Check voltage for 26 volts.
DC GEN Caution Lights should be illuminated.
Standby Gen Load Meter should indicate a load.</i> | OFF |
| 7. MAIN GENERATOR
<i>DC Gen Caution Light should go out and
Main Generator Load Meter should indicate a load.</i> | ON |
| 8. STARTER GENERATOR | START |
| 9. THROTTLE | OFF |
| 10. MAIN FUEL SWITCH | OFF |
| 11. INVERTER | OFF |
| 12. PITOT HEATER | OFF |
| 13. EXTERNAL & ANTI -COLLISION LIGHTS | OFF |
| 14. CABIN LIGHTING | OFF |
| 15. BATTERY | OFF |



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Description and Specifications

The Bell UH-1 Iroquois (nicknamed "Huey") is a utility military helicopter powered by a single turboshaft engine, with two-bladed main and tail rotors. The first member of the prolific Huey family, it was developed by Bell Helicopter to meet a 1952 US Army requirement for a medical evacuation and utility helicopter, and first flew in 1956. The UH-1 was the first turbine-powered helicopter produced for the United States military, and more than 16,000 have been built since 1960.

Neat things to know about the HUEY and some flight characteristics:

- The airspeed indicator is not reliable below 20 knots due to rotor wash.
- The HUEY will hover with the left skid lower due to the thrust of the tail rotor.
- It will take a little more power to hover in high grass and uneven terrain.
- Out of ground hover height is equal to 1 and ½ time the diameter of the rotor. The HUEY has a 48 ft 3.2 in rotor diameter rotor. So OGE height would be about 70 – 75 ft.
- Effective translational lift occurs between 16 – 24 knots. At that point, the nose will move slightly to the left and will pitch up slightly due to increased efficiency of the main rotor and tail rotor.
- With engine RPM at 6600, the engine torque will read 10-12 pounds of torque.
- ***An average loaded HUEY will hover at about 30 pounds of torque. That number is a good one to keep in the back of your mind.***
- The HUEY holds 202 imp gallons of JP-4 fuel. JP-4 weighs 6.5 pound per gallon. A full tank will give you 1358 pounds of fuel. For planning purposes, about 600 pounds per hour is a good number, or about 2 hours of flying time plus reserve time.
- Max weight for a sling load is 4000 pounds.

General characteristics

Crew:	1-4
Capacity:	3,880 lb (1,760 kg), including 14 troops or 6 stretchers
Length:	57 ft 1 in (17.4 m) with rotors
Width:	8 ft 7 in (2.62 m) (Fuselage)
Height:	14 ft 5 in (4.39 m)
Max fuel capacity:	242 US gal (920L)
Empty weight:	5,215 lb (2,365 kg)
Gross weight:	9,040 lb (4,100 kg)
Max. takeoff weight:	9,500 lb (4,309 kg)
Powerplant:	1 × Lycoming T53-L-13 turboshaft, 1,400 shp (1000 kW)

Performance

Maximum Speed	135 mph (220 km/h, 117 kn)
Cruise speed:	125 mph (205 km/h) 109 knots
Range:	315 miles (510 km, 274 nm)
Service ceiling:	19,390 ft (5,910 m) dependent on weight, air temp, etc
Rate of climb:	1,755 ft/min (8.9 m/s)