

HSAC Preferred Helicopter Equipment Fit # 2004-08

Background: Proper helicopter equipment fit is essential for safe operations involving offshore helicopter operations and HSAC recommends the following guidelines adopted for helicopters flown in the Gulf of Mexico.

Helicopter Equipment	Multi-Eng 10 or more passengers	Multi-Eng 9 or less passengers	Single Engine
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Avionics/ Navigation Equipment

2 primary transceivers with 1 VHF minimum	Minimum		
Means of constant flight following	Minimum		
GPS (with IFR TSO preferred)	Minimum		
ELT and/or EPIRB, 406 MHz preferred	Minimum		
1 ADF, 2 required if ADF is only navigation source	N/R VFR, Minimum IFR	Optional	
2 VOR/ILS & 1 DME	Minimum IFR and Night (5)		Minimum
Instantaneous vertical speed indicator (IVSI) preferred	Minimum IFR and Night (5)		
Radio altimeter with audio/visual alert (1)	Minimum	Recommended	
Weather radar with minimum scale 2.5nm	Minimum IFR/Night	N/R VFR (5)	Recommended
CVR/FDR if available	Recommended Long Term		N/R
Ground proximity warning system (GPWS/TAWS)	Recommended Long Term (Long Term = one year+)		
Health usage monitoring system (HUMS), or (2)			
Unit (engine) monitoring system (UMS), with (2)			
Airframe/engine vibration monitoring system (2)			
Altitude voice alert device (AVAD) (2)			

Survival equipment

Fire extinguisher(s) (with pressure gauges preferred)	2 each Minimum	1 each Minimum or 2 Minimum if a single is not accessible to all occupants	
First aid kits	Minimum - 2 with 50% overload		Minimum - 1 (7)
Raft(s), tethered to aircraft (external operable preferred) (2, 7)	Minimum		
Life raft emergency radio/ beacon /transponder (5)	Minimum		
Offshore survival kit (4)	Minimum		
Emergency pop-out windows for passenger cabin (2)	Minimum		
Sonar transmitter (Pinger)	Minimum		
Pilot vest w/emergency beacon/radio (3)	Minimum		
Aircraft flotation equipment	Recommended Long Term		
Auto inflation of fuselage floats (2)	Recommended Long Term		

Passenger Management/Survivability

Inner torso restraints All seats (2)	Recommended Long Term		
Passenger briefing Cards	Minimum		
Passenger life vests, constant wear (3)	Minimum		
Onboard passenger briefing system (6)	Optional		
Public address / intercom (PA) system	Minimum	Minimum (6)	
Loud hailer with externally mounted speaker	Recommended		

Other Equipment

Collision avoidance system	Recommended for All in High Density Areas, with no radar (active interrogating systems only -If certified)		
High visibility pulse or forward recognition lights	Recommended for All in High Density Areas, with no radar (active interrogating systems only -If certified)		
Mirrors for external situation awareness (2)	Minimum to improve situational awareness outside aircraft		
Heating for cabin	Minimum Long Term for temperatures below 15° C/R		
Emergency exit lighting system (2)	Recommended Long Term Night (5)	Optional	
Automated (satellite) flight following system (2)	Recommended Long Term		
Baggage bay restraint netting	Minimum		

- (1) Dual display required for dual pilot and AVAD (Automatic Voice Alert Device) for IFR operations Long Term
- (2) When an approved modification exists for the a/c type.
- (3) Where TSO approved and available life vests with crotch strap design preferred. Life vests should include a whistle, night light, "hypothermia bag" and a dye marker. 406 MHz ELT/beacon/radios are preferred for the pilot vests.
- (4) Recommended contents: One each day/night signaling device, signaling mirror, whistle, knife, 25 foot retaining line, magnetic compass, dye marker or equivalent, fishing kit, and sunblock. May be included inside the life raft.
- (5) All night flights SHOULD be flown multi eng equipped for IFR flight, using IFR flight procedures & dual pilot (see RP 2003-01)
- (6) Should have means of communication with passenger compartment, may be a phone type system.

Recommended Practices (RP) are published under the direction of the Helicopter Safety Advisory Conference (HSAC), P.O. Box 60220, Houston, Texas, 77205. RPs are a medium for discussion of aviation operational safety pertinent to the energy exploration and production industry in the Gulf of Mexico. RPs are not intended to replace individual engineering or corporate judgement nor to replace instruction in company manuals or government regulations. Suggestions for subject matter are cordially invited.

- (7) Life raft in single pilot helo should be pilot accessible from the cockpit, if not place a 2d small raft in the cockpit area or have externally deployable life raft. All rafts (internal/external) will be "tethered"/secured to the fuselage with a frangible cord (typically the raft's nylon strap).

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