



HEC

Applicant's licence number:

HEC 1 (Sling or cable length is less or equal to 25m)

HEC 2 (Sling or cable length is greater than 25m)

Provisions according to Commission Regulation (EU) No 965/2012 Part-SPO (SPO.SPEC.HEC) and the non-binding FOCA recommendations (Guidance Material)

Applicant

Last name: _____ First name: _____ Date of birth: _____

e-mail: _____ Signature of applicant: _____

Operator

Name: _____ AOC / Declaration No: _____

HEC Instructor

Last name: _____ First name: _____ License No: _____

Last name: _____ First name: _____ License No: _____

HUMAN EXTERNAL CARGO OPERATIONS – GROUND INSTRUCTION

OM/SOP	
Content of OM including relevant SOPs	<input type="checkbox"/> <input type="checkbox"/>
Flight and duty times	<input type="checkbox"/> <input type="checkbox"/>
Max. cycles / day	<input type="checkbox"/> <input type="checkbox"/>
Min. and max. fuel	<input type="checkbox"/> <input type="checkbox"/>
Refuelling procedures	<input type="checkbox"/> <input type="checkbox"/>
Radio communications / hand signals	<input type="checkbox"/> <input type="checkbox"/>
Human factors / CRM / nutrition	<input type="checkbox"/> <input type="checkbox"/>
Safety equipment / operational briefing	<input type="checkbox"/> <input type="checkbox"/>
Pilot / task specialist responsibilities	<input type="checkbox"/> <input type="checkbox"/>
Aircraft Flight Manual	
Limitations	<input type="checkbox"/> <input type="checkbox"/>
Mass and balance	<input type="checkbox"/> <input type="checkbox"/>
Abnormal and emergency procedures	<input type="checkbox"/> <input type="checkbox"/>
Performance / HOGÉ	<input type="checkbox"/> <input type="checkbox"/>
Cargo hook supplement	<input type="checkbox"/> <input type="checkbox"/>
Flight Procedures	
Short / long line flying techniques	<input type="checkbox"/> <input type="checkbox"/>
Airspeed selection with load	<input type="checkbox"/> <input type="checkbox"/>
Flight path selection (3rd party)	<input type="checkbox"/> <input type="checkbox"/>
Bank / load factor / load drag	<input type="checkbox"/> <input type="checkbox"/>
Load stabilisation techniques / hover & in-flight	<input type="checkbox"/> <input type="checkbox"/>
Downwash / load rotation	<input type="checkbox"/> <input type="checkbox"/>
Visual hover reference	<input type="checkbox"/> <input type="checkbox"/>
Rotor clearance	<input type="checkbox"/> <input type="checkbox"/>
Environment / slope / forest / canyon	<input type="checkbox"/> <input type="checkbox"/>

Minimum requirements before starting practical HEC instruction:	
- Min. 10h on type of helicopter	<input type="checkbox"/>
- Type rating completed	<input type="checkbox"/>
- HESLO 1 or 2 completed	<input type="checkbox"/>
- Relevant experience in the field of operation	<input type="checkbox"/>
- Training in human factors principles	<input type="checkbox"/>
- Ground instruction completed (marshaller syllabus)	<input type="checkbox"/>

Manual & electrical load release	<input type="checkbox"/> <input type="checkbox"/>
Decision / exposure time	<input type="checkbox"/> <input type="checkbox"/>
Load Rigging Techniques	
Single person extraction (vertical)	<input type="checkbox"/> <input type="checkbox"/>
Single person extraction (horizontal)	<input type="checkbox"/> <input type="checkbox"/>
Multi persons extraction	<input type="checkbox"/> <input type="checkbox"/>
Worksite Preparation	
Worksite layout	<input type="checkbox"/> <input type="checkbox"/>
Fuel area designation and access	<input type="checkbox"/> <input type="checkbox"/>
Ground personnel safe area	<input type="checkbox"/> <input type="checkbox"/>
Safety measures / traffic control	<input type="checkbox"/> <input type="checkbox"/>
Special Equipment	
PCDS	<input type="checkbox"/> <input type="checkbox"/>
Load lifting means (cargo hook / BQRS, dual hook, hoist, etc.)	<input type="checkbox"/> <input type="checkbox"/>
Special equipment used by operator	
1.	<input type="checkbox"/> <input type="checkbox"/>
2.	<input type="checkbox"/> <input type="checkbox"/>
3.	<input type="checkbox"/> <input type="checkbox"/>
4.	<input type="checkbox"/> <input type="checkbox"/>
Emergency / Limitations	
Flight control stops	<input type="checkbox"/> <input type="checkbox"/>
Tail rotor failure	<input type="checkbox"/> <input type="checkbox"/>
Engine failure / OEI operation	<input type="checkbox"/> <input type="checkbox"/>
Height velocity diagram / exposure time	<input type="checkbox"/> <input type="checkbox"/>
Emergency procedures in HEC operations	<input type="checkbox"/> <input type="checkbox"/>
Review of HEC accidents / incidents	<input type="checkbox"/> <input type="checkbox"/>
Dangers / Hazards	
Flights in valleys / cables / wires	<input type="checkbox"/> <input type="checkbox"/>
Flight over congested areas / roads / 3rd party	<input type="checkbox"/> <input type="checkbox"/>
Airflow / up and downdrafts	<input type="checkbox"/> <input type="checkbox"/>
Sun / shadow / snow / rain / static electricity	<input type="checkbox"/> <input type="checkbox"/>
Settling with power / vortex	<input type="checkbox"/> <input type="checkbox"/>
Emergency load release	<input type="checkbox"/> <input type="checkbox"/>

Conditions: - Maximum sling length according to the applicable level - 1 Task specialist (with radio) at pickup point - 1 Task specialist (with radio) at drop off point / on the line - helicopter equipped with: <ul style="list-style-type: none"> ▪ additional mirror(s) and/or video camera(s) ▪ a bubble window 	OPERATIONAL Equipment 1 MERS..... 5 2 6 3 7 4 8
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EMERGENCY PROCEDURES	
1 Engine failure	5
2 OEI operation	6
3 Loss of communication	7
4 Rotating load	8

Flight instruction DC / min. 10 HEC cycles which of 5 cycles 'Human Cargo': (every square is 1 cycle) Mirror Vertical ref.

Cycle No: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Ops. equipment:

Emergency procedures:

Date training started:

WARNING: NO human cargo during emergency procedure training. Human cargo always has to be a task specialist.

Trainee may perform solo HEC with on-site supervision

Date training ended: Signature HEC instructor:

Flight PIC under supervision / min. 10 HEC cycles: (every square is 1 cycle/use codes) Mirror Vertical ref.

Cycle No: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Ops. equipment:

Date training started:

Pilot proficiency has been assessed as **sufficient for the intended operations and environment**. The trainee's logbook has been endorsed with 'HEC Level 1' or 'HEC Level 2' satisfactorily completed

Date training ended: Signature HEC instructor:

Additional requirements before acting as unsupervised PIC for HEC 1:

- 1'000h helicopter flight experience as PIC
- For mountain operations, 500h of flight experience as PIC in mountain operations

Additional requirements before acting as unsupervised PIC for HEC 2:

- HESLO 2 completed

Sign-off by the operator

Last name: _____ First name: _____ Licence No: _____

Function: _____ Signature: _____ Date: _____