





Transport of external loads with helicopters "Level 3" required by RFP Art. 133 g After completion of training send this form to: Bundesamt für Zivilluftfahrt (BAZL), FA / Helikopter, Maulbeerstrasse 9, 3003 Bern

Name:	First Name:	Date of birth:			
Tel Privat:	Tel Mobile:	Fax:			
Change of address (indicate new address)	Oui / <i>ja</i>	E-Mail:			
Zip code / City:		Street:			
Pilot in charge of theoretical instruction (must have	e a minimum of 500h ECS ex	cperience):			
Name:					
LOGGING GROUND INSTRUCTION					
FOM		Single log (short stem, long stem)			
Flight and duty times		Multiple chokers			
Max. cycles / day		Multiple logs			
Min. and max. fuel		Combined loads			
Refueling procedures					
Radio communications		Special Equipment			
Human factors / CRM / nutrition		Concrete bucket			
Safety equipment / Operational Briefing		Electrical remote hook / swivel hook / double hook			
Pilot / marshaller responsibilities		Chokers / steel cables / chains			
•		Long lines			
Flight Manual		Load meter / printer			
Limitations		Mirrors			
Performance / HOGE		Bubble window / vertical refernces			
Cargo hook supplement		Audio / vibration warning			
Flight Procedures		Emergency / Limitations			
Airspeed selection with load		Flight control stops			
Descent & approach (power, ROD, IAS)		TR failure			
Load ground clearance		Engine failure / OEI operation			
Flight path selection (3rd party)		Height velocity diagram / exposure time			
Bank / load factor / load drag		Emergency procedures in logging ops			
Log uplift and drop off technics		Review of logging accidents			
Load stabilisation techniques / hover & in-flig					
Downwash / Rotor clearance		Dangers			
Visual hover reference / vert, horiz		Flights in valleys / cables / wires			
Marshaller Hand signals		Logging over wires / roads / 3rd party			
Manual & Electrical load release		Airflow / up and downdrafts / settling with power / vortex			
Decision / exposure time		Sun / shadow / snow / rain / static electricity			
		Emergency load jettison			
<b>Load &amp; Person Preparation</b>		Remarks:			
Vertical loads					
Horizontal loads					
Minimum requirements before starting p instruction:  - CPL(H) / ATPL(H)		I herewith certify that the trainee has received the required ECS 3 ground instruction and is found competent to begin the practical ECS 3 instruction.  Date:			
<ul> <li>Type rating completed</li> <li>Min. 10 hours PIC on type of helicopte</li> <li>ECS 3 Ground instruction completed</li> <li>Marshaller syllabus reviewed / SUVA te</li> </ul>	ər	Name:			
Practical Marchaller training for loggir		Signature:			

# **FLIGHT INSTRUCTION**

CH-Licence N°

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## **LEVEL 3 LOGGING**

### Conditions:

- Maximum cargo weight 1'500 kg
- 1 marshaller (with radio) at pickup point
- 1 marshaller (with radio) at drop off point helicopter fitted with cargo mirror / bubble window\* \*if applicable

### **VERTICAL REFERENCES**

The trainee must be able to perform a stabilized hover flight by means of vertical references without any external cargo attached to the helicopter prior to commencing training with external loads.

DEFINITIONS

### Mission:

One mission is an ECS flight or series of ECS flights, conducted from site A to site B, for a particular customer, on a particular day.

A cycle is a flight from site A to site B with an external load and subsequent return to site A.

Pilot (preferably Flight Instructor) in charge of ECS practical training (must be qualified at minimum for must have a minimum experience of 500 hours ECS ). <b>maximum 2 persons.</b>	ECS level 1 and 3 and				
Name: Licer	nce Nr:				
Name: Licer	nce Nr:				
Flight instruction DC/minimum 3 hours: (every square is 1 hour)	☐ Mirror ☐ Vertical ref.				
Date training started:					
Cycles DC/minimum 30 cycles: (every square is 1 cycle) should include load types 1 through 4					
Cycles 257					
Trainee may perform solo ECS3 with on site supervision Date:	License N°:				
Flight instruction solo with on site supervision / min. 10 missions: (every square is 1 mission)	☐ Mirror ☐ Vertical ref.				
Cycles solo/minimum 100 cycles: (every square is 1 cycle)					
	Type of loads (use code in squares)				
	1 Vertical load				
	<ul><li>2 Logs with branches</li><li>3 Multiple logs</li></ul>				
	4 Combined multiple logs				
Trainee may perform solo ECS3 under supervision Date:	License N°·				
Trainee may perform solo ECS3 under supervision  Date: Signature / License N°:					
Flight instruction solo under supervision / min 10 missions: (every square is 1 mission)	☐ Mirror ☐ Vertical ref.				
SUPERVISOR NOT REQUIRED ON SITE					
Trainee is found properly qualified for LOGGING (ECS3) operations without supervision The trainee's logbook has been endorsed for "ECS Level 3"					
Date: Signature / License N°:					
Total Helicopter Flight experience:	Remarks:				
500h <hel<1000h< td=""><td></td></hel<1000h<>					