

HELICOPTERS

European Safety Promotion Network – Rotorcraft (ESPN-R) Hoist Operation

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ESPN-R Hoist Presentation - European Rotors 2024

AIRBUS



What / Who is ESPN-R?

Developing Practical Material - ESPN-R

European Safety Promotion Network Rotorcraft (ESPN-R)

- A mixed industry-authorities partnership aiming to develop, disseminate and evaluate Safety Promotion (SP) material and contribute to SP campaigns
- Ensuring that SP material reaches the target audience in addition to authority and industry channels

Many expert contributors are working voluntarily and partly in their leisure time!

→ OEMs, Operators, Associations, Industry and Aeronautic suppliers like Simulator Manufacturers, NAA and EASA, etc.



An as wide as possible outreach is key!!
As well outside of Europe!



Aviation Safety:

Worldwide SAFETY Promotion in the Rotorcraft Sector & Keyplayers



ExVertical Aviation Safety Team RoadMaps



[European Safety Promotion Network Rotorcraft \(ESPN-R\) | EASA \(europa.eu\)](#)

[Vertical Aviation Safety Team – VAST](#)

[VAST Members - VAST](#)

5 Teams for Leverage in Focus Areas



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Hoist

ESPN-R Task Force Sling Load Safety Promotion

Lead: michael.behrens@airbus.com

Sling Load

ESPN-R LinkedIn main forum (> 3000 members !!)



 **John Franklin MBE** • 1st
Head of Safety Promotion at EASA - European Aviation Safety Agency
21h

 **EASA - European Union Aviation Safety Agency**
175,221 followers
21h • 

#EASA issues report recommending additional actions to enhance the survivability of helicopter underwater accidents.
<https://lnkd.in/dkTNVze> ...see more

EASA issues research report including recommendations related to underwater escape from helicopters





#EASAResearch 



 4


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 **Andy Evans** • Group Owner
Director - Aerassurance 2d

Helicopter Downdraft Dangers

Congratulations to the BP North Sea Aviation Team for winning the Sharing and Learning Award at today's Offshore Safety Awards, jointly organised by Oil & Gas UK and Step Change in Safety. Well work a look if you operate an offshore helideck or onshore helipad.
<https://www.youtube.com/watch?v=09bvuVRKwvc>


 **Helicopter Downdraft Dangers**
This video highlights the risk of helicopter downdraft which is present when an aircraft is in close proximity to an installation.

[Like](#) [Comment](#) |  9  4

ABOUT THIS GROUP
This forum was created in 2014 by the European Helicopter Safety Team (EHST). EHST was a 10 year programme that started in 2006. It's safety promotion role has now been taken over by the new EASA Rotorcraft Sectorial Committee (RSC) of the EASA St... [Show more](#)

[Group rules](#)

MEMBERS 1,402 members



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[European Safety Promotion Network Rotorcraft \(ESPN-R\) | EASA \(europa.eu\)](#)
[ESPN-R Sling Load Operations Safety Promotion | Groups | LinkedIn](#)



Thanks for your attention!

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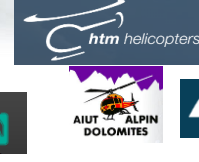


Your safety is our mission.

Core working member of the hoist operational task force:

- Karl Mueller – Swiss Air Forces
- Christoph Hess – Swiss Air Forces
- Klaus Hopf – Police Helicopter Squadron Bavaria (retired)
- Frank Weiskopf – Bavarian Helicopter Police Squadron
- Stefan Timmermans - Police Helicopter Squadron Hessen
- Fabrice Legay, Jan Loncke, Eric Bennet, Michel Masson, John Franklin – EASA
- Dario De Liguoro - Leonardo Helicopters Company
- Julien Eymard - Leonardo Helicopters Company
- Walter Traversa – Avincis Italy
- Michele Valenza - THC
- Sebastian Schneider - DRF Luftrettung
- Jörg Redetzky - DRF Luftrettung
- Roland Benning – ADAC Luftrettung
- Davide Losa – KONG
- Michael Kammerer - KronSafety
- Thomas Knudstrup – LiteFlite
- Markus Greil – Tyromont
- Stefan Blochum - Bergwacht Bayern
- Arjan Dehaan – Northern HeliCopter
- Simon Kremser - Northern HeliCopter
- Ivo Airaudi – Airgreen
- Davide Subrero - Starworksky
- Philippe Dugourd – LAR
- Renaud Guillermet – Securite Civile
- Rupert Gleissl – Airbus Helicopters & Bergwacht Bayern
- Christian Balta – Airbus Helicopters
- Bernd Osswald – Airbus Helicopters
- Alexander Weissenboeck – Airbus Helicopters

....and many more contributors from all over the world.....



...busy times 2022, 2023 & 2024...

**Workshop
Leonardo
Helicopters
Sesto Calende/
IT
November 2021**



**Collins User
Conference
March 2022
HAI Dallas/US**



**May 2022
PCDS
Workshop
KONG / IT**



**ICAR
October 2022**



**Collins User
Conference
March 2023
HAI Atlanta/US**



**3rd DRF HHO
Symposium
September
2023**



**ICAR
October 2023**



September 2024



4th HHO Symposium

**ICAR
October 2024**



....and more
virtual
meetings &
workshops...



**EUROPEAN
ROTORS
November 2021**



**March 2022
PCDS
Workshop
Bergwacht
Bad Tölz**



**2nd DRF HHO
Symposium
September
2022**



**EUROPEAN
ROTORS
November 2022**



**May 2023
PCDS & Hoist Pilot Workshop**

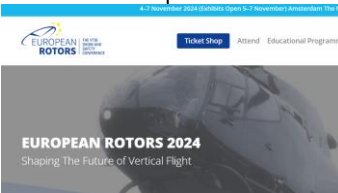
**EUROPEAN
ROTORS**

November 2023



**February 2024
HAI Los
Angeles/US**

**2024 GOODRICH HOIST OPERATORS
CONFERENCE AGENDA**



November 2024



Reminder of Airbus Helicopters Safety Promotion Notice for Hoist Operations

Hoist OPS Safety Promotion Task Force AH DRF HHO Symposium AW Rev 0, 09.2024



No. 3195-P-00

SAFETY PROMOTION NOTICE

SUBJECT: GENERAL

ESPN-R Hoist Task Force recommendations

For the attention of



AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
EC120	B	
AS350	B, BA, BB, B1, B2, B3, D	L1
AS350		A2, C2, C3, U2
AS355	E, F, F1, F2, N, NP	
AS355		AF, AN, SN, UF, UN, AP
EC130	B4, T2	
SA330 / AS330	C1, C2, C3, N, N1, N2, N3	F, FA, FI, K, K2
AS355		MA, ME, SA, SE, UE, ME
SA350		GA
EC155	B, B1	
SA330	J	Ba, L, Jm, S1, Sm
SA341	G	B, C, D, E, F, H
SA342	J	L, L1, M, M1, Mu
ALOUETTE II	313B, 313C, 318B, 318C, 318D	
ALOUETTE III	318B, 318C, 318D, 319B	
LAMA	319B	
EC225	LP	
EC725		AP
AS332	C, C1, L1, L2	B, B1, F1, M, M1
AS332		A2, U2, AC, AL, SC, UE, UL
EC175	B	
EC339		KUH variant
BO105	C (C2), CB, CB-A, CB-S), D (DB, DBS, DB-A, DB-S), S (CS, CBS, CBS-A, CBS-S), LS A-3	CBS-5 KUH, E-4
MBB-BK117	A-1, A-3, A-4, B-1, B-2, C-1, C-2, C-3a, D-2, D-3m	D-2m
EC135	T1, T2, T21, T3, P1, P2, P21, P3, ECSS T1, ECSS T21, ECSS T3, ECSS P21, ECSS P3, T3H, P3H, ECSS T3H, ECSS P3H	

Revision 0 2019-09-19

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This document is available on the internet: www.airbus.com/hoistops



No. 3195-P-00

2.2 OPERATIONAL RECOMMENDED PRACTICES

Depending on whether the hoisting operations are performed by night or during the day, onshore or offshore, specific recommended practices & scenarios can be identified.

2.2.1 OFFSHORE HOISTING OPERATIONS

One of the specifics of offshore flight is usually laminar wind conditions. However, with the increasing use of large tankers or cruisers, specific risks need to be tackled.

2.2.1.1 Operating close to large vessels: 1 Cliff effect

Large vessels are an obstacle to laminar winds at sea and can generate dynamic updrafts and vortices, much like what can be encountered in mountain flying.
Risk identified: quick variations of dynamic updraft due to ship heading change or squalls from a different direction can induce significant height gain or loss.



Mitigation: strong awareness to this effect must be maintained

- by the pilot for choosing the hovering area, approach vector and the risk caused by obstacles in case of downdraft,

- by the hoist operator, to make sure that height variations do not occur with a hoist passenger close to the ship.

Revision 0 2019-09-19

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Revision 1 2020-07-07

This document is available on the internet: www.airbus.com/hoistops



No. 3195-P-00

2.2.1.2 Operating close to large vessels: 2 Swing back effect

Large obstacles windward will "mask" the wind from the hoist passenger at some point on the way down.
Risk identified: No longer pushed by the wind, the hoist passenger will swing back to a position vertically below the helicopter.



Risk mitigation: the hoist operator needs to anticipate this effect and adapt the approach vector and cable reeling speed accordingly.

Revision 0 2019-09-19

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Revision 1 2020-07-07

This document is available on the internet: www.airbus.com/hoistops

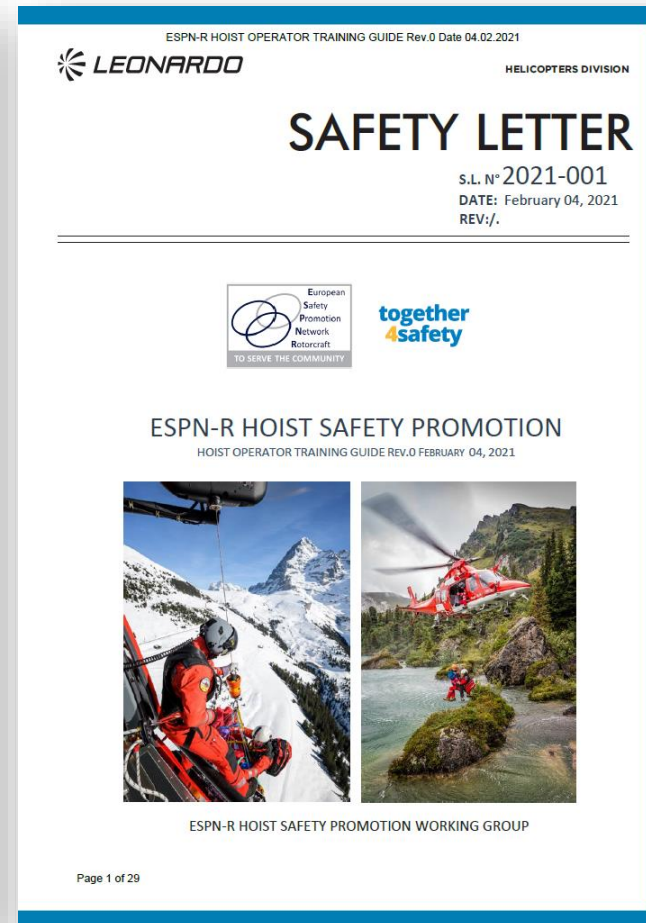
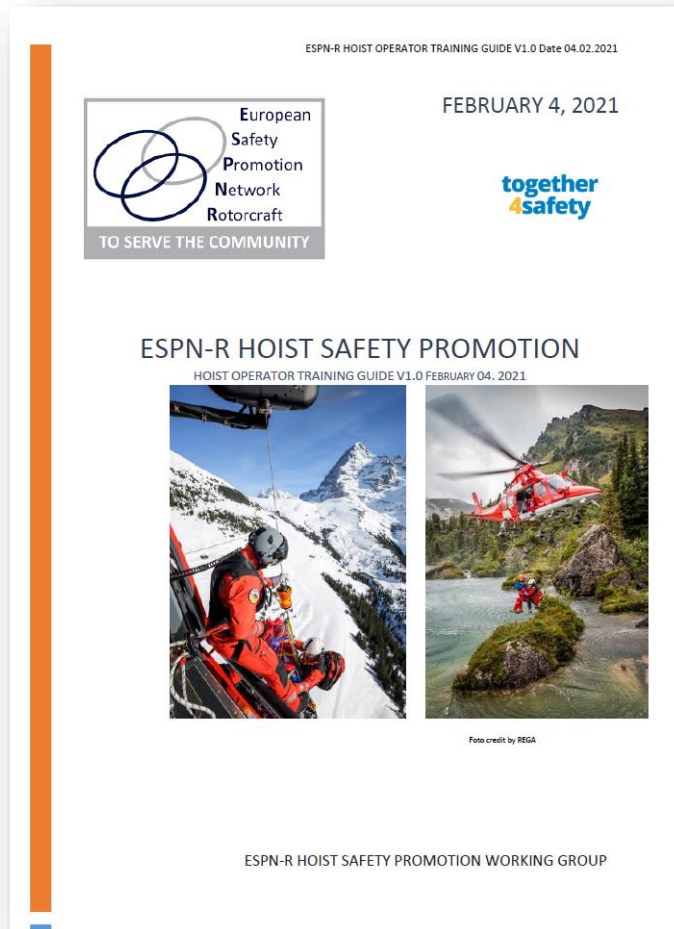
Notice (SPN) 3195-P-00-Rev-0-EN in September 2019 and revision in 2020 to also include e.g. off-shore hoisting operation information

10

4 November, 2024



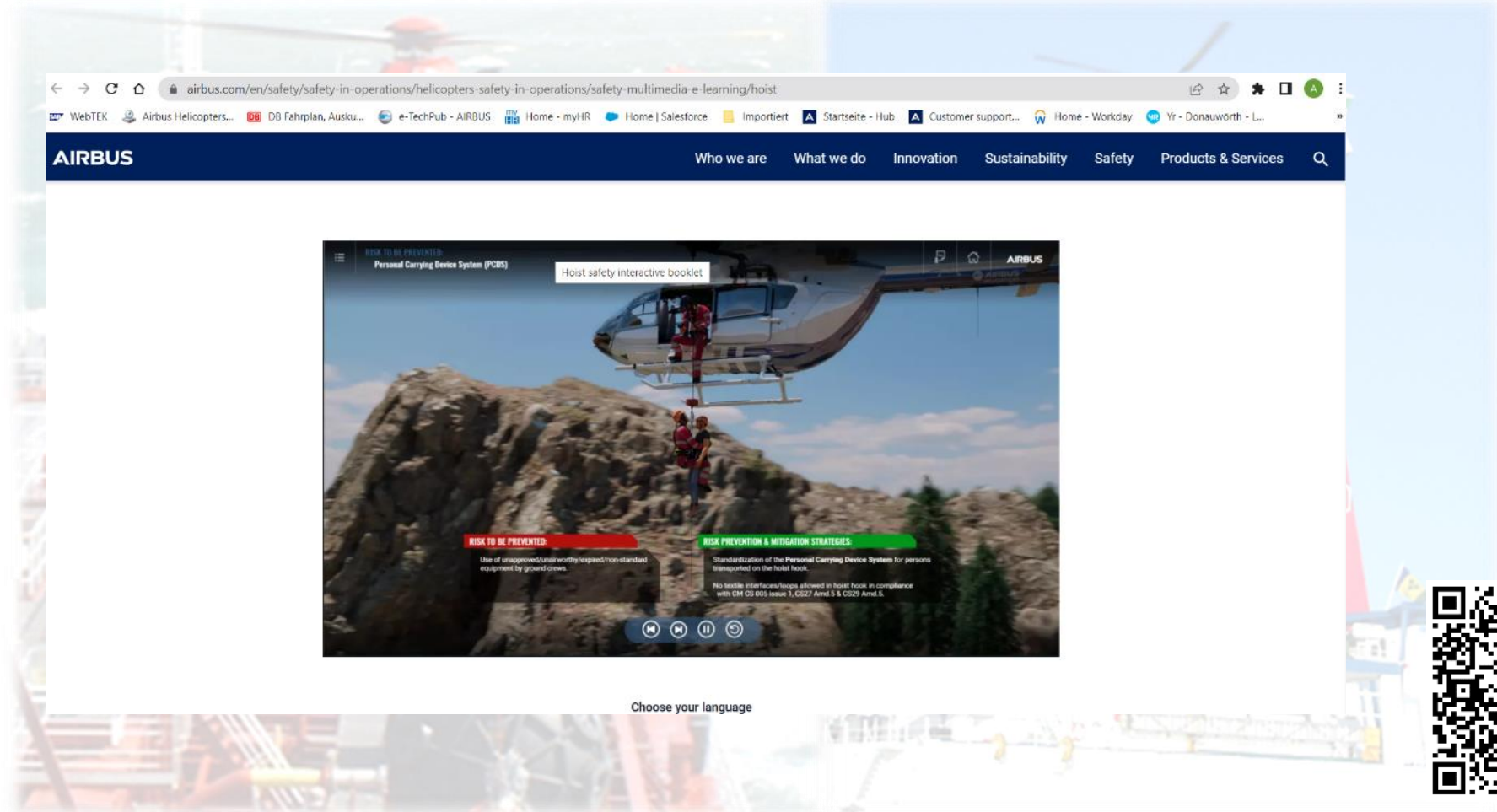
HOIST OPERATOR TRAINING GUIDE



On February 24th, 2021 the ESPN-R Hoist Operator Training Guide was released by together4safety, Leonardo Helicopters and Airbus Helicopters.

Link together4safety→ [here](#)

Free Airbus hoist operations e-learning in multiple languages available



Based on Notice (SPN) 3195-P-00-Rev-1-EN, Airbus Helicopters developed an interactive FOC e-learning booklet to safely carry out your hoist operations while preventing and mitigating associated risks.

.... on August 29th, 2023 HeliOffshore referenced the ESPN-R Hoist Operator Training Guide in their **Wind Farm Recommended Practice (WinReP) V2**



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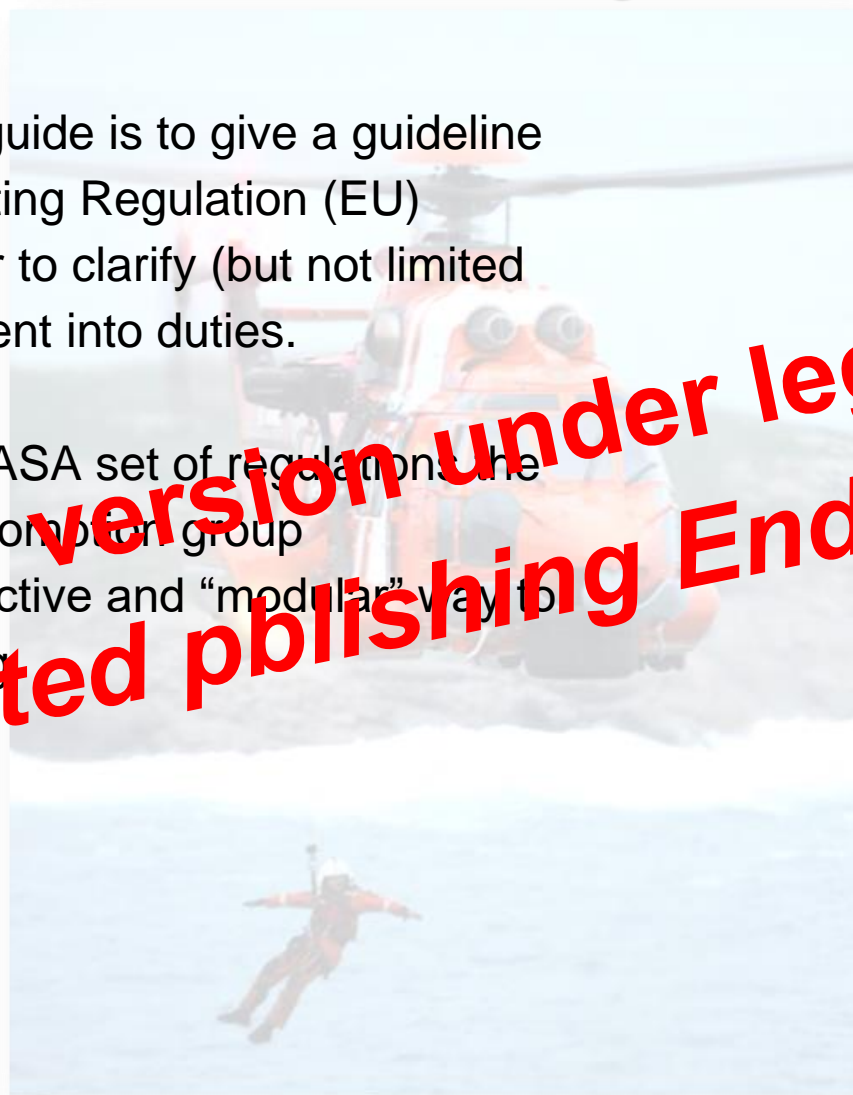


Link to HeliOffshore → [here](#)

Hoist Pilot Training Guide

The aim of this upcoming training guide is to give a guideline for pilot training, based on the existing Regulation (EU) 965/2012 on air operations in order to clarify (but not limited to) training, checking and assignment into duties.

Considering the already existing EASA set of regulations, the ESPN-R Hoist Operation Safety Promotion group suggests and recommends an effective and “modular” way to perform pilot education and training.



ESPN-R HOIST SAFETY PROMOTION WORKING GROUP

DRAFT Guideline on PCDS for Helicopter Hoist Operations

- ❑ The intention of this document is to provide an overview regarding PCDS equipment set up and use to ensure proper and safe operations in H/C hoisting environments. This document provides guidelines for operators to define the configuration and use of PCDS.
- ❑ All PCDS in H/C hoist operations has to be in line with regulatory requirements covered with EASA CM no: CM-CS-005 Issue 01 / CS29.Amdt.5 & CS29.Amdt.6 Certification Memorandum Helicopter External Loads Personnel Carrying Device System and its internal referenced reference documentation. New issue to be respected.

ESPN-R “Hoist Safety Promotion” does not aim to establish a new standard concerning PCDS for Hoist Operation but has the scope to recommend a non exhaustive list of examples in order to provide guidance in the “equipment jungle”.

GUIDELINE ON PCDS FOR HELICOPTER HOIST OPERATIONS

MAIN TOPICS COVERED IN THE GUIDANCE:

- Involved PCDS components in Hoist operations
- PCDS /Helicopter compatibility
- Required functions for PCDS equipment and PCDS System
- H/C fixed equipment
- Hoist operator
- Rescuer/ TCM/ Task Specialist
- Hoist Passenger / HHOP, Commercial Air Transport (CAT)
- Rescue Equipment, Cargo Equipment
- Training
- Maintaining and management of the PCDS for continued usage



DRAFT Whitepaper on Simulated Helicopter Hoist Operations

- ❑ Nowadays the **environmental and financial impacts of flight training** need to be contained more than ever **maintaining the highest standards** in order to always **improve safety and efficiency of operations**.
- ❑ Helicopter Cabin Crew and especially Hoist Operator still have to perform almost all their flight training on helicopter while **Pilots and Technicians are largely using simulated training solutions**.
- ❑ However, with the constant evolution of technology and also with Operators new mindset orientation **a new era is coming for Helicopter Hoist Operation**.

ESPN-R “Hoist Safety Promotion” does not aim to establish a standard concerning Hoist Operation simulated training but has the scope to recommend a structured approach in order to give credits to such activity.

Work in progress – latest workshop
Last week @ Leonardo helicopters

Simulated Helicopter Hoist Operations for ab-initio, advanced, recurrent, etc...



Crew to receive training in simulator or similar device can reproduce various kind of normal & emergency procedures



Disruptive Hoist-Pendant Concept

European Safety Promotion Network – Rotorcraft (ESPN-R) Hoist Operation

Stefan Timmermanns Police Helicopter Squadron Hessen

Sebastian Schneider DRF Stiftung Luftrettung gAG



Hoist-Pendant



simple

few properties

few operating functions

Example of incorrect handling of the Hoist-Pendant:





Hoist pendants from the past
and present

HOIST PENDANTS MAYBE
IN THE FUTURE

Summary

What do we need in the future?

- ↪ A pendant adapted to different hand sizes
- ↪ As simple as possible
- ↪ Possible work with gloves
- ↪ Ergonomically improved to reduce fatigue



What happens next in this project?

- ☞ Cooperation with the TU Munich started in February 2024:
 - Consideration of ergonomics and optimization
 - Preparation of a thesis on this topic
- ☞ Frequent updates on the topic



European
Safety
Promotion
Network
Robotcraft



Hoist OPS Safety Promotion Task Force AH-DRF HHO Symposium AW Rev 0, 09.2024



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Thank you, for helping us to
increase safety on hoist
operations



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4 November, 2024