

HELICOPTERS

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

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Alexander Weissenboeck, Airbus Helicopters

ESPN-R Hoist Presentation - European Rotors 2024

AIRBUS



European
Safety
Promotion
Network
Rotorcraft

TO SERVE THE COMMUNITY



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



Safety Above All
www.vast.aero

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

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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

Like Comment



Back to LinkedIn.com

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Start a conversation with your group

Enter a conversation title...

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Andy Evans • Group Owner
Director - Aerossurance 2d

Helicopter Downdraft Dangers
Congratulations to the BP North Sea Aviation Team for winning the Shering 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](#) | 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

[Invite others](#)



[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:

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- 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
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- Michael Kammerer - KronSafety
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- Stefan Blochum - Bergwacht Bayern
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- 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...

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



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



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



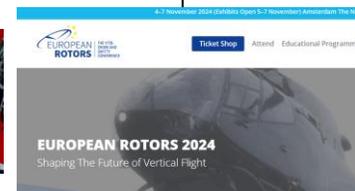
November 2023



February 2024 HAI Los Angeles/US



2024 GOODRICH HOIST OPERATORS CONFERENCE AGENDA



November 2024



Reminder of Airbus Helicopters Safety Promotion Notice for Hoist Operations

No. 3195-P-00

SAFETY PROMOTION NOTICE

SUBJECT: GENERAL
ESP-N-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, MB, SA, SE, UE, UE*
SA330		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, 3130, 3180, 318C, 318D	
ALOUETTE III	316B, 316C, 316D, 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/urion
BO105	C (C2), CB, CB-4, CB-5), D (DB, DBS, DB-4, DBS-4, DBS-5), S (CS, CBS, CBS-4, CBS-5), 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, T2*, T3, P1, P2, P2*, P3, ECSS T1, ECSS T2*, ECSS T3, ECSS P2*, ECSS P3, T3H, P3H, ECSS T3H, ECSS P3H	

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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
Page 42/48

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
Page 43/48

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

HOIST OPERATOR TRAINING GUIDE

ESPN-R HOIST OPERATOR TRAINING GUIDE V1.0 Date 04.02.2021

FEBRUARY 4, 2021



TO SERVE THE COMMUNITY



ESPN-R HOIST SAFETY PROMOTION
HOIST OPERATOR TRAINING GUIDE V1.0 FEBRUARY 04, 2021



Foto credit by REGA

ESPN-R HOIST SAFETY PROMOTION WORKING GROUP

ESPN-R HOIST OPERATOR TRAINING GUIDE Rev.0 Date 04.02.2021

LEONARDO HELICOPTERS DIVISION

SAFETY LETTER

S.L. N° 2021-001
DATE: February 04, 2021
REV: /




ESPN-R HOIST SAFETY PROMOTION
HOIST OPERATOR TRAINING GUIDE REV.0 FEBRUARY 04, 2021



ESPN-R HOIST SAFETY PROMOTION WORKING GROUP

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AIRBUS HELICOPTERS
No. 3626-P-00

SAFETY PROMOTION NOTICE

SUBJECT: GENERAL
ESPN-R publication: Hoist operator training guide

For the attention of 

AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
EC129	B	
AS350	B, BA, BB, B1, B2, B3, D	L1
AS550		A2, C2, C3, U2
AS355	E, F, F1, F2, N, NP	
AS555		AF, AN, SN, UF, UN, AP
EC130	B4, T2	
SA365 / AS365	C1, C2, C3, N, N1, N2, N3	F, F ₀ , F1, K, K2
AS565		MA, MB, SA, SB, UB, M3e
SA366		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, Ma
ALOUETTE II	313B, 3130, 318B, 318C, 3180	
ALOUETTE III	316B, 316C, 3160, 319B	
LAMA	319B	
EC225	LP	
EC725		AP
AS332	C, C1, L, L1, L2	B, B1, F1, M, M1
AS332		A2, U2, AC, AL, SC, UE, UL
EC175	B	
BO105	C (C23, CR, CB-4, CB-5), D (DB, DBS, DB-4, DBS-4, DBS-5), S (CS, CBS, CBS-4, CBS-5), LS A-3	CBS-5 KLH, E-4
MBB-BK117	A-1, A-3, A-4, B-1, B-2, C-1, C-2, C-2e, D-2, D-2m, D-3, D-3m	D-2m, D-3m
EC135	T1, T2, T2+, T3, P1, P2, P2+, P3, EC635 T1, EC635 T2+, EC635 T3, EC635 P2+, EC635 P3, T3H, P3H, EC635 T3H, EC635 P3H	

The goal of this Safety Promotion Notice is to share the recommendations of the ESPN-R taskforce on hoist training.

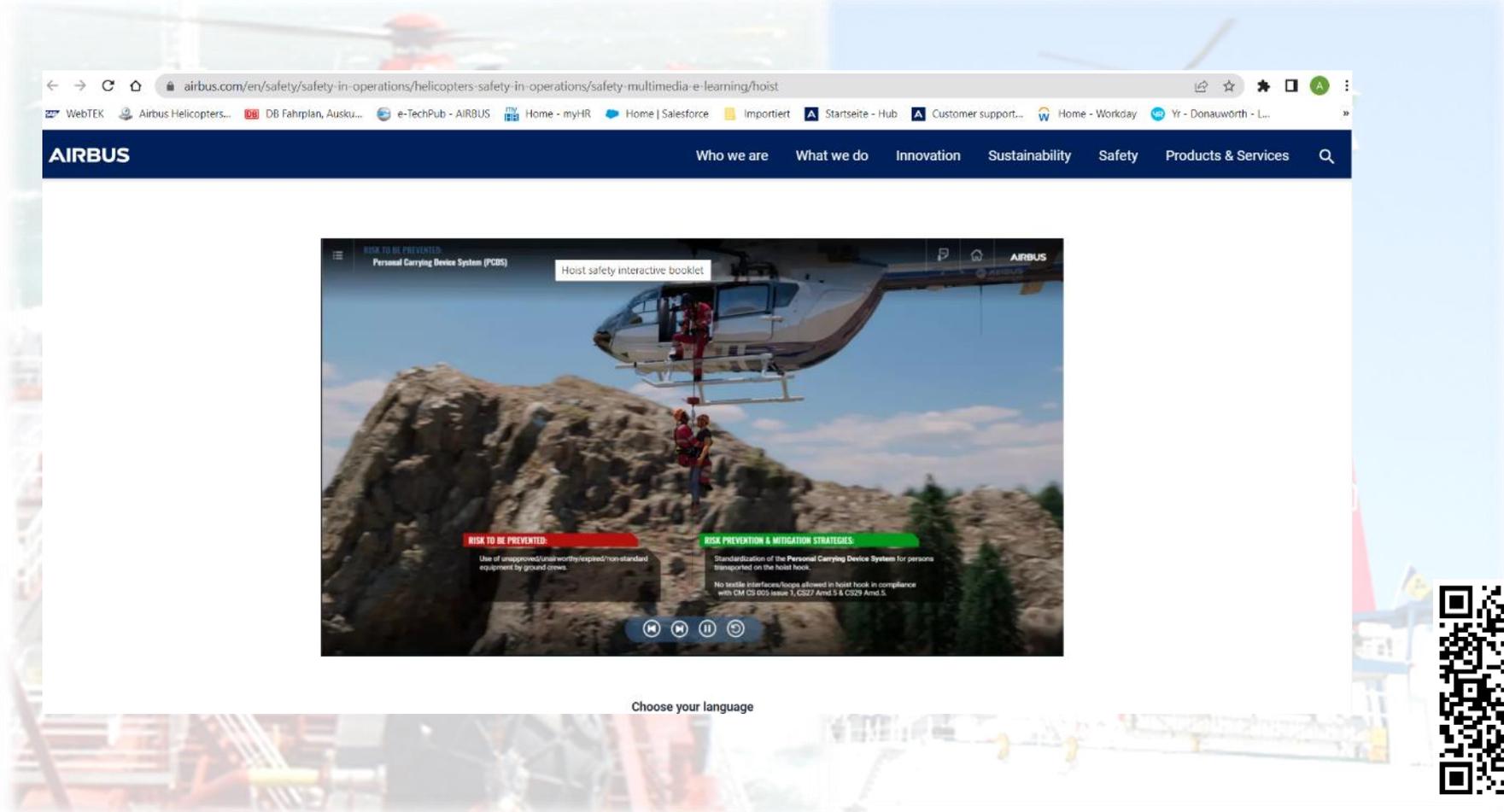
Revision 0 2021-02-04 Page 1/1
This document is available on the internet: www.airbushelicopters.com/techpub/



Link together4safety → [here](#)

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

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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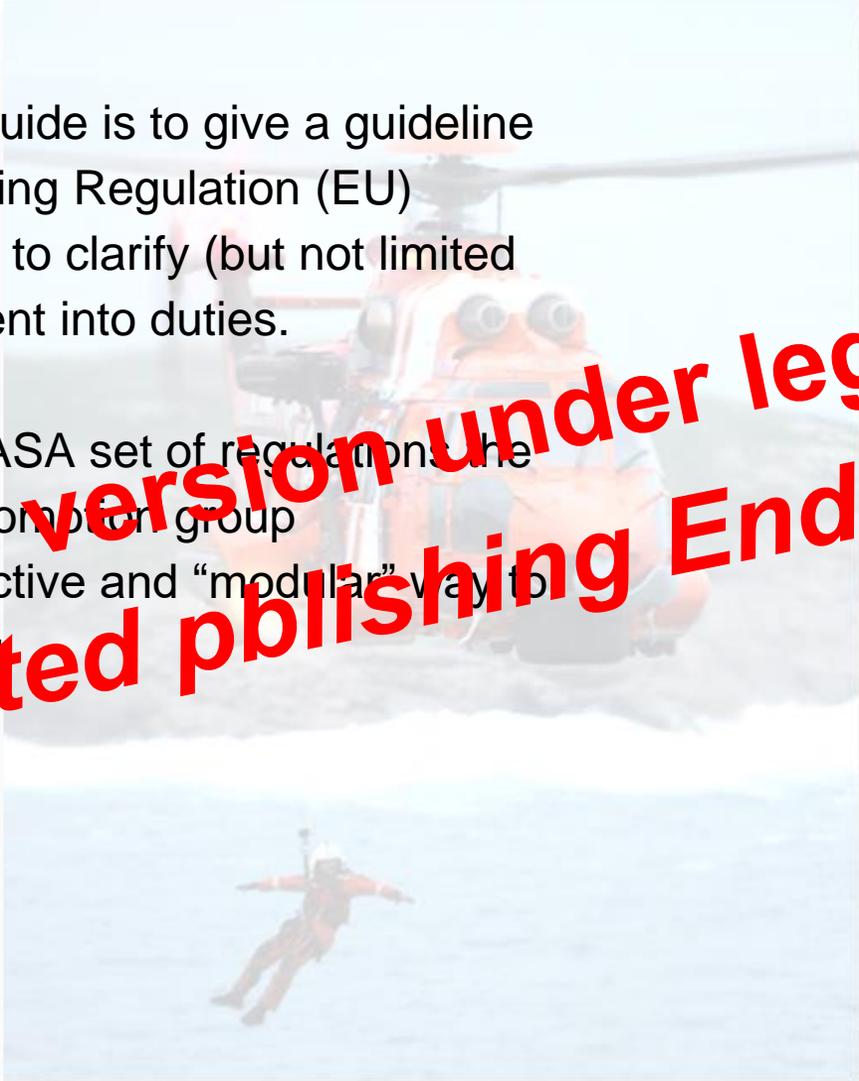
Link to HeliOffshore → [here](#)

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.

Final DRAFT version under legal review
Estimated publishing End 2024
DRAFT



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 Amd.5 & CS29 Amd.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”.

Approx 95% finished & DRAFT version under review

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**

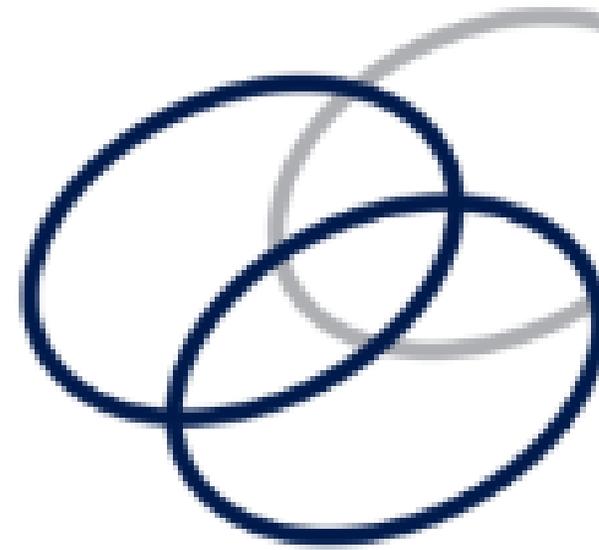
Simulated Helicopter Hoist Operations for ab-initio, advanced, recurrent, etc...



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



Lechenich47!



European
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TO SERVE THE COMMUNITY

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



The screenshot shows the LinkedIn group page for "ESPN-R Hoist Operation Safety Promotion". At the top, the LinkedIn navigation bar is visible with icons for Home, My Network, Jobs, Messaging, Notifications, Me, For Business, and Try Premium for €0. The group header includes the owner's profile (Alexander Weissenboeck), the group name, and a banner image of a hand reaching up towards a helicopter. The group has 1,240 members and is private. A post by Ned Dawson is highlighted, promoting HeliOps & ANTARES Magazines. The right sidebar shows analytics for the last 15 days, including 416 active members (34% increase), 1 new member (0%), 2 posts (100% increase), and 2,306 post views (51% increase). The admin section lists Alexander Weissenboeck as the owner.



Join the LinkedIn ESPN-R Hoist Safety Promotion Community, link [here](#)



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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