



Fabi Riesen





 **Loft Dynamics**

 **Loft Dynamics**

 **THREE POINT**

**THE
NORWEGIAN
TEAM**

**WE
ARE
#LOFT**

**#FUTURE
MAKERS**

2021

Virtual reality

Contents hide

- (Top)
- Etymology
- Forms and methods
- History
 - 20th century
 - 1970–1990
 - 1990–2000
 - 21st century
 - 2010–present**
- Technology
 - Hardware
 - Software
- Visual immersion experience
 - Display resolution
 - Image latency and display refresh

Article Talk

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In 2020, Oculus released the [Oculus Quest 2](#), later renamed the [Meta Quest 2](#). Some new features include a sharper screen, reduced price, and increased performance. Facebook (which became Meta a year later) initially required users to log in with a Facebook account in order to use the new headset.^[60] In 2021, the [Oculus Quest 2](#) accounted for 80% of all VR headsets sold.^[61]

In 2021, [EASA](#) approved the first Virtual Reality based Flight Simulation Training Device. The device, for rotorcraft pilots, enhances safety by opening up the possibility of practicing risky maneuvers in a virtual environment. This addresses a key risk area in rotorcraft operations,^[63] where statistics show that around 20% of accidents occur during training flights.

In 2022, Meta released the [Meta Quest Pro](#). This device utilised a thinner, visor-like design that was not fully enclosed, and was the first headset by Meta to target mixed reality applications using high-resolution colour video passthrough. It also included integrated [face and eye tracking](#), [pancake lenses](#), and updated [Touch Pro](#) controllers with on-board motion tracking.^{[64][65]}



Robinson R22 Virtual Reality Training Device developed by VRM Switzerland^[62]

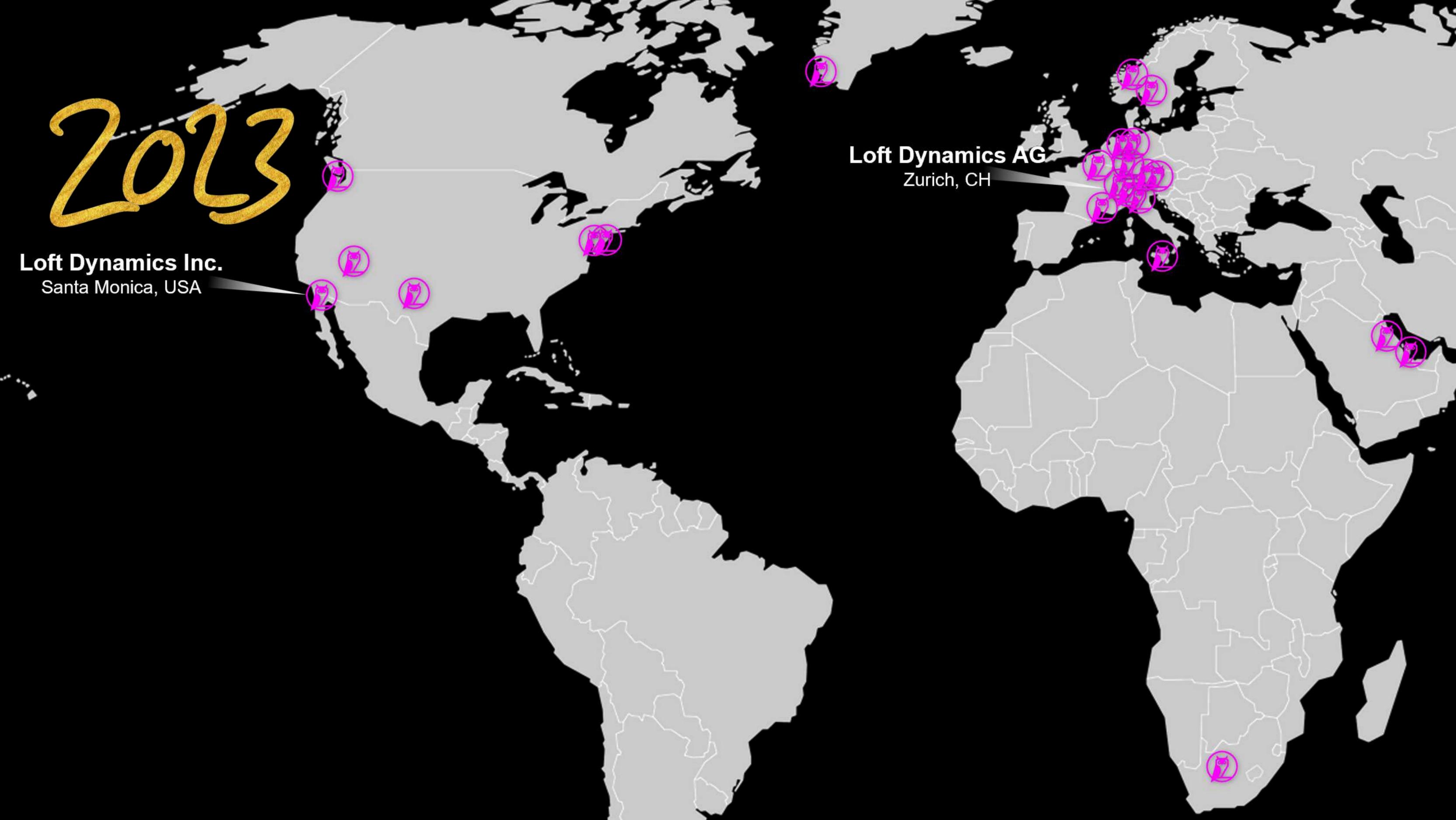
2022



2023

Loft Dynamics Inc.
Santa Monica, USA

Loft Dynamics AG
Zurich, CH



2024

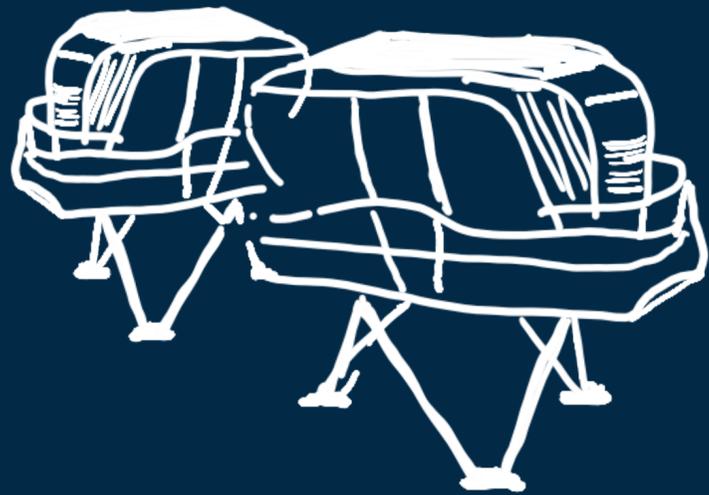
Loft-Suite

Loft reinvents pilot training

2024



realistic



hard to access

easy to access



not so realistic

realistic



Virtual Reality

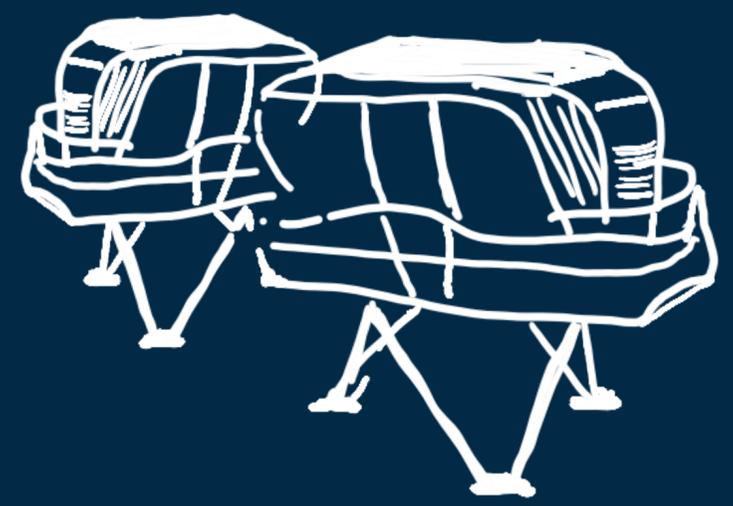
FFS-D (Dome Projection)

not so realistic



Loft-Suite

realistic

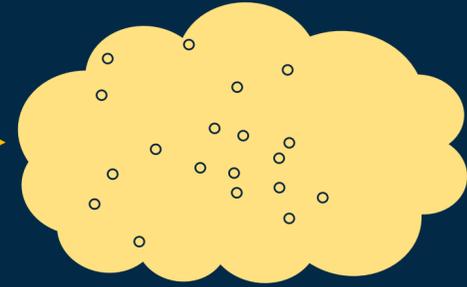


hard to access

easy to access



not so realistic

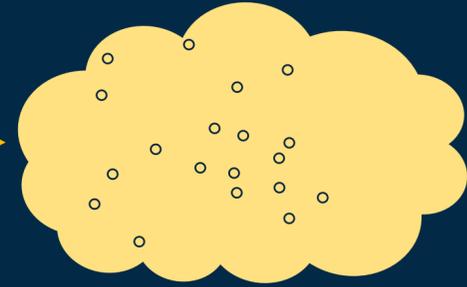


Loft-Suite



Unqualified

Qualified



EASA

✓ **QUALIFIED**

APPROVED TRAINING DEVICE
AIRBUS



Loft-Home Kit



Loft-Cloud



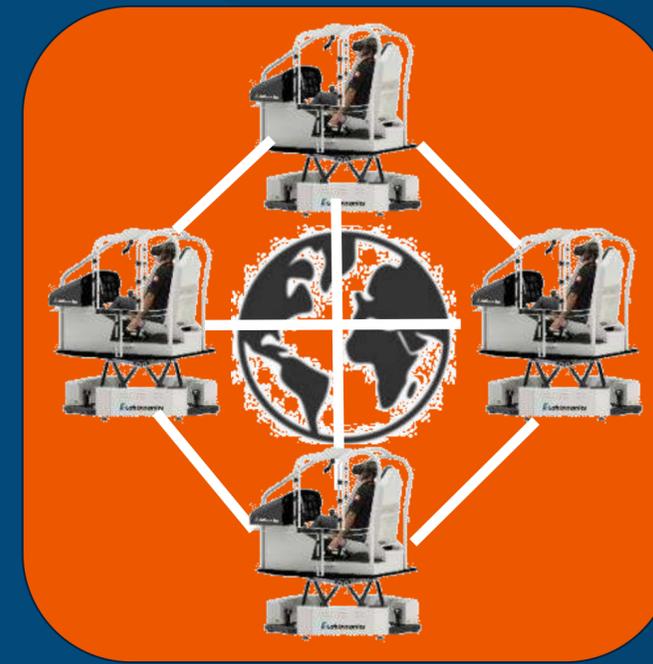
Loft-SimNet



Loft-Home Kit



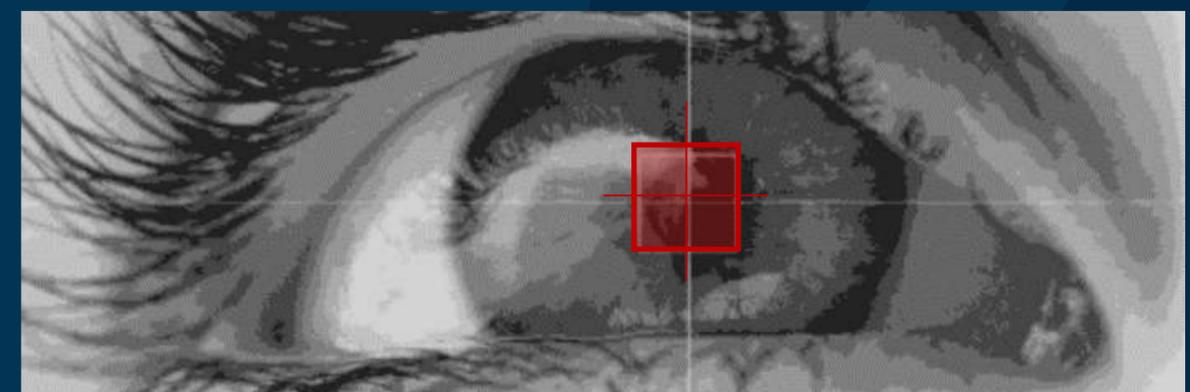
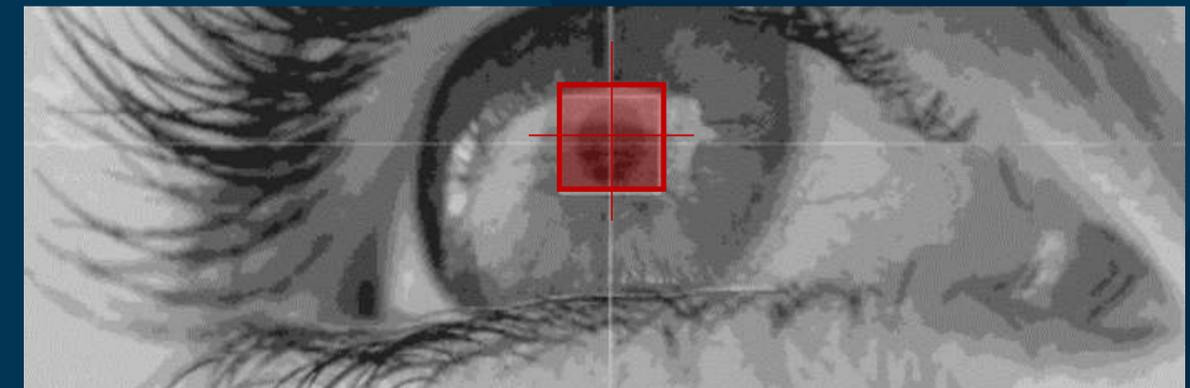
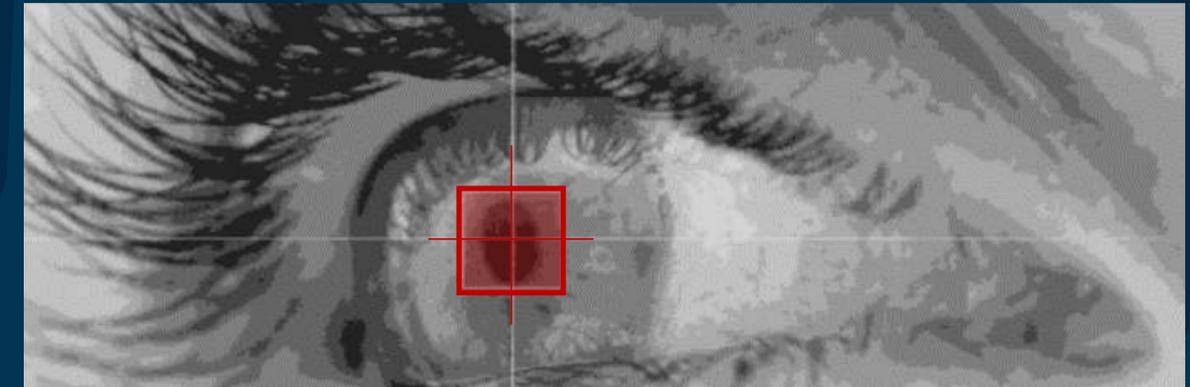
Loft-Cloud



Loft-SimNet

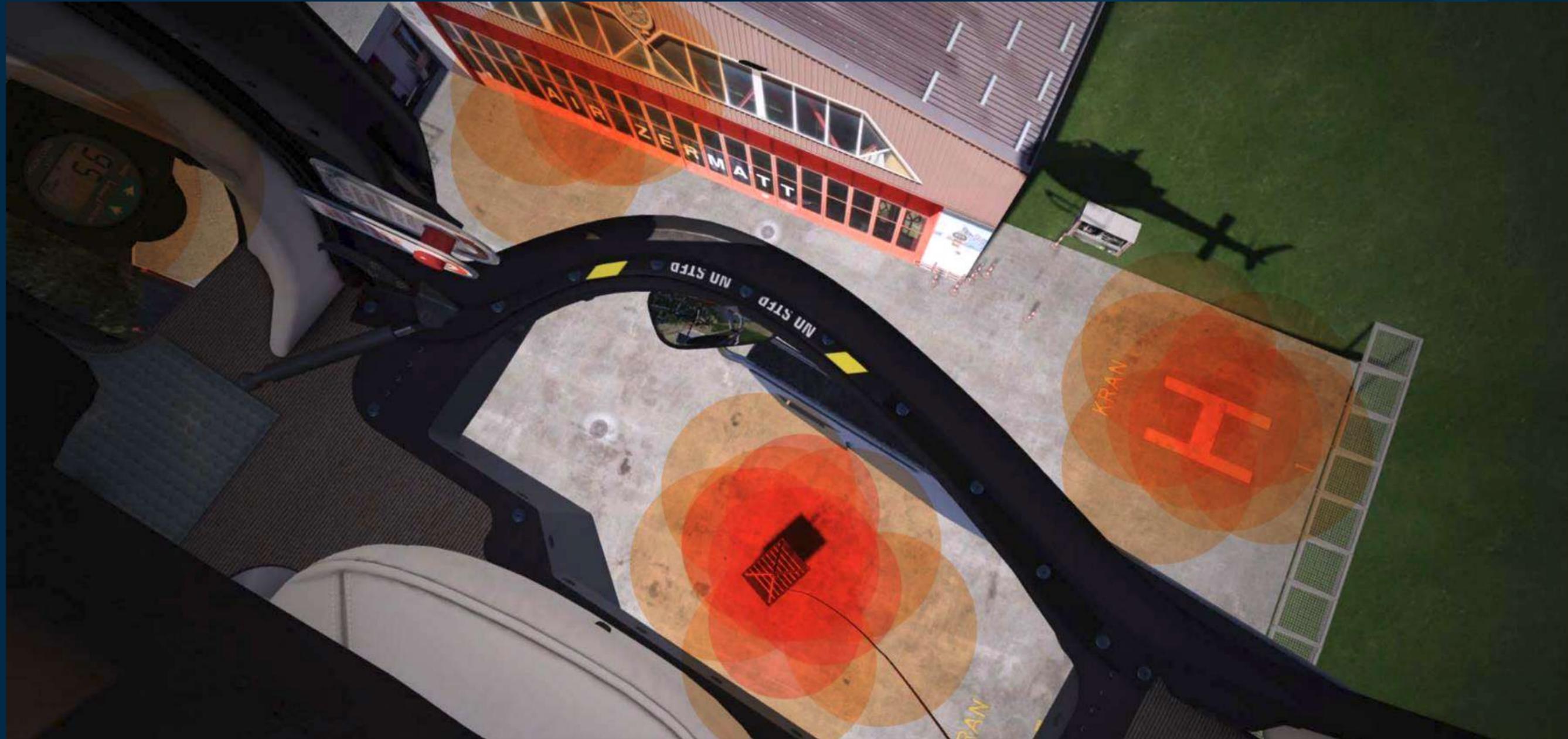
Eye Tracking

Stress Management Analysis



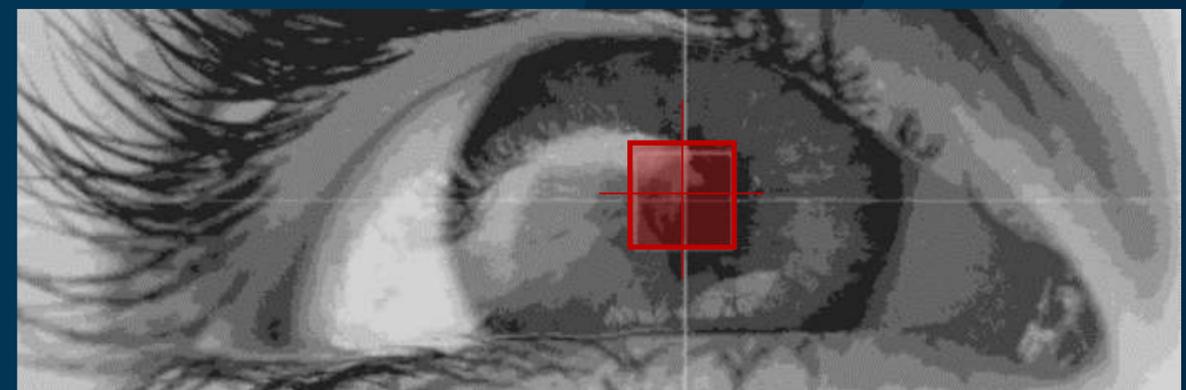
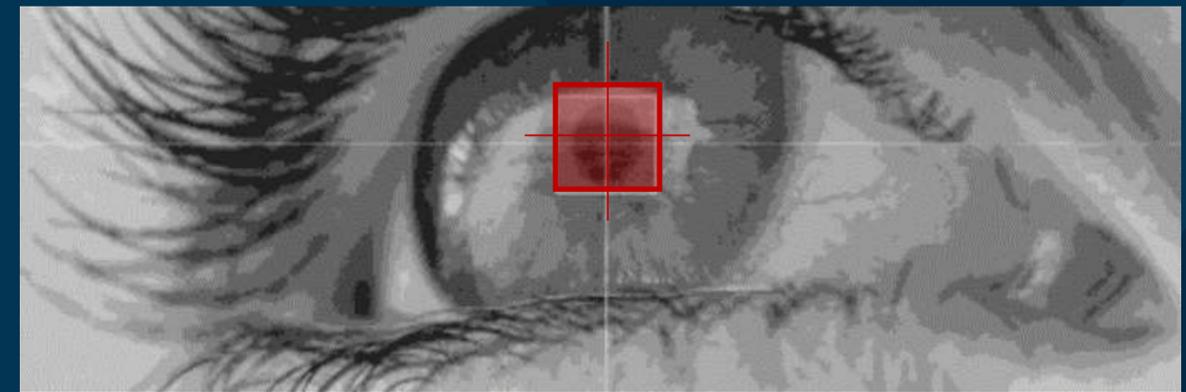
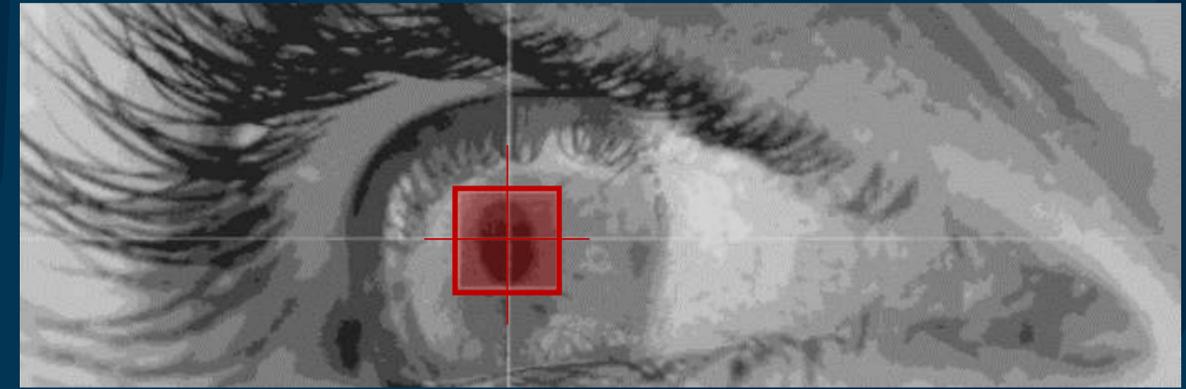
Eye Tracking

With Virtual "Heat Map"



Eye Tracking

Stress Management Analysis

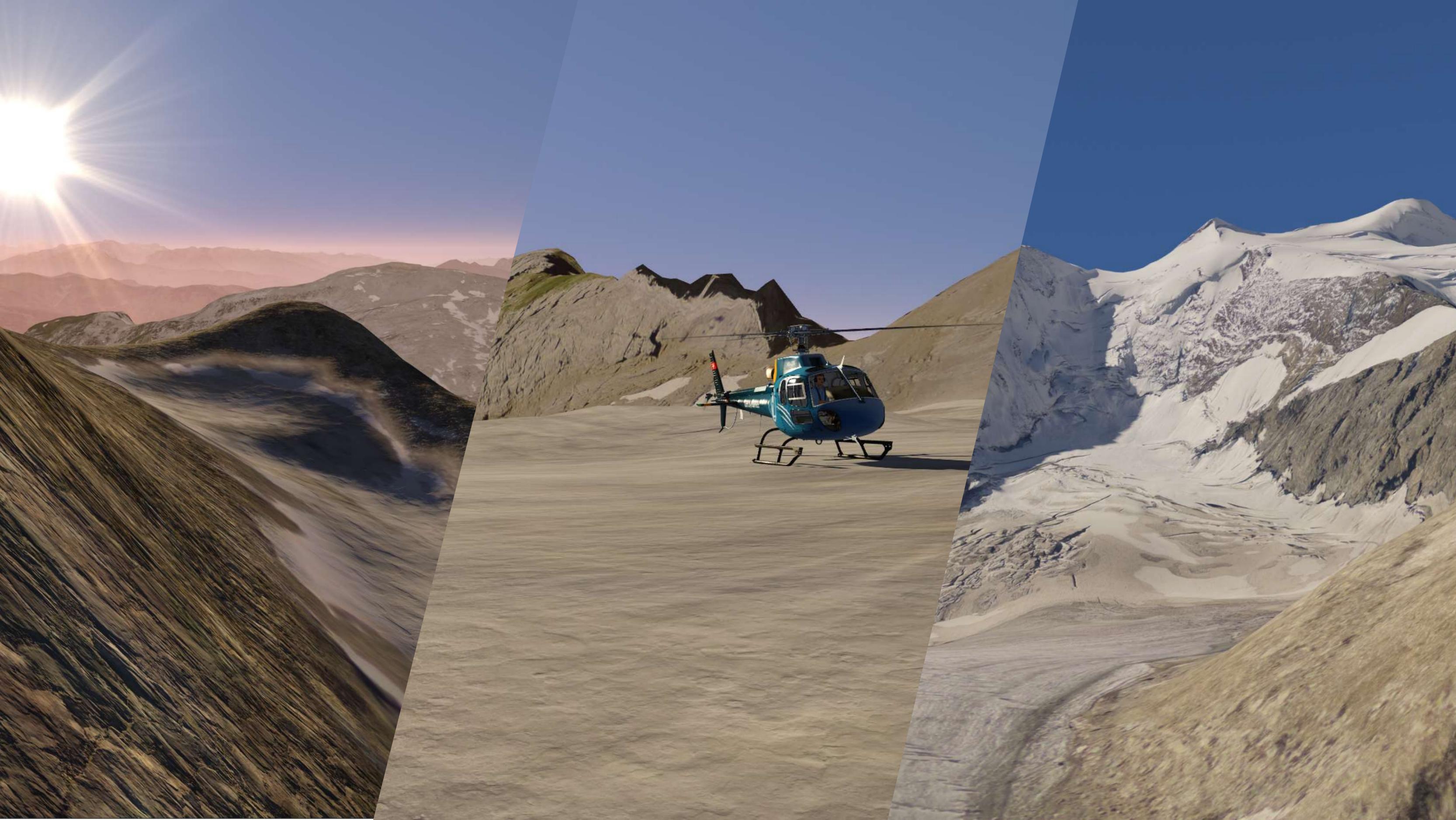




EASA
European Aviation Safety Agency

✓ QUALIFIED









Loft-Home Kit



Loft-Cloud



Loft-SimNet



Timeline

17 Sep 2024 Today

14 Jan 2025 Simulator session

15 Jan 2025 Theoretical session Zermatt

15 Jan 2025 Check Zermatt

15 Jun 2025 Check

← Hover

Workload Management

Application of Knowledge

Application of Procedures and Compliance with Regulations

Communication

Aircraft Flight Path Management, automation

Aircraft Flight Path Management, manual control

Leadership and Teamwork

Pilot Competencies

Progress

- 22 Mar - 1 Apr
- 8 Apr - 12 Feb
- 12 Feb - 15 Jun
- 15 Jun - 14 Oct 2023
- 14 Oct 2023 - 29 Sep 2025

BrandName ATO

Flight instructors

	Michael Beispiel	3 trainings & checks	12 sessions	3 days left
	Eva Esempio	2 trainings & checks	5 sessions	3 months left
	John Doe	4 trainings & checks	7 sessions	4 months left







Loft-Home Kit



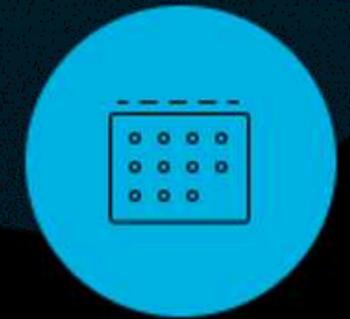
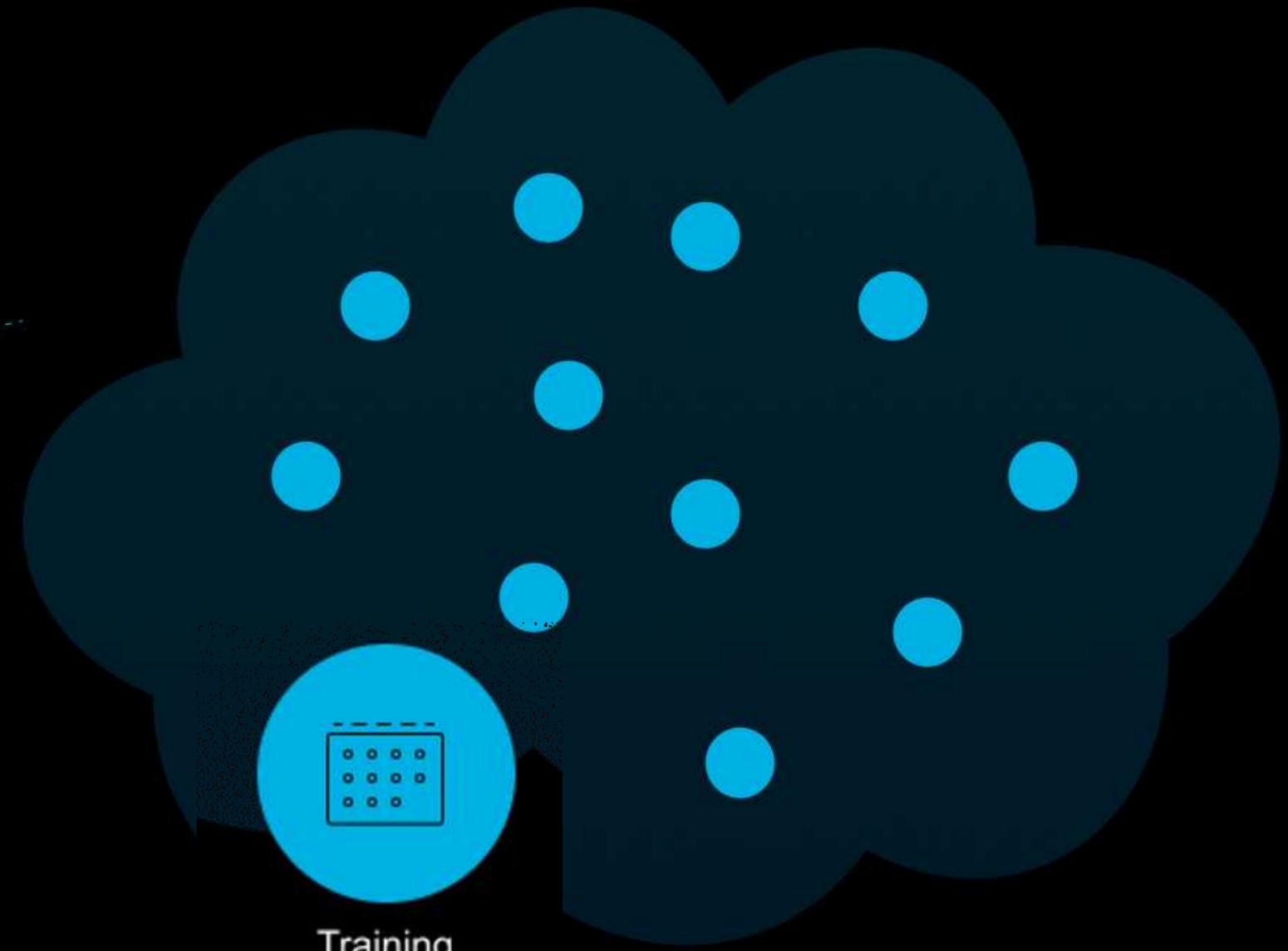
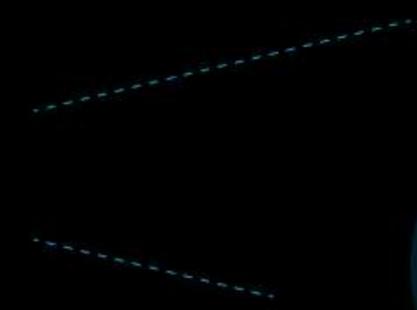
Loft-Cloud



Loft-SimNet



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Training
Modules





Flight instructors

 **Michael Beispiel** [3 trainings & checks](#) [12 sessions](#) **3 days left**

 **Eva Eempio** [2 trainings & checks](#) [5 sessions](#) **3 months left**

 **John Doe** [4 trainings & checks](#) [7 sessions](#) **4 months left**

Pilots

 **Anna Exemple** [2 trainings & checks](#) [24 sessions](#) **6 days left**

 **John Doe** [4 trainings & checks](#) [7 sessions](#) **12 days left**

 **Eva Eempio** [2 trainings & checks](#) [4 sessions](#) **4 months left**





John Doe Pilot

[Switch role](#) [See past sessions](#)

Upcoming Trainings & Checks

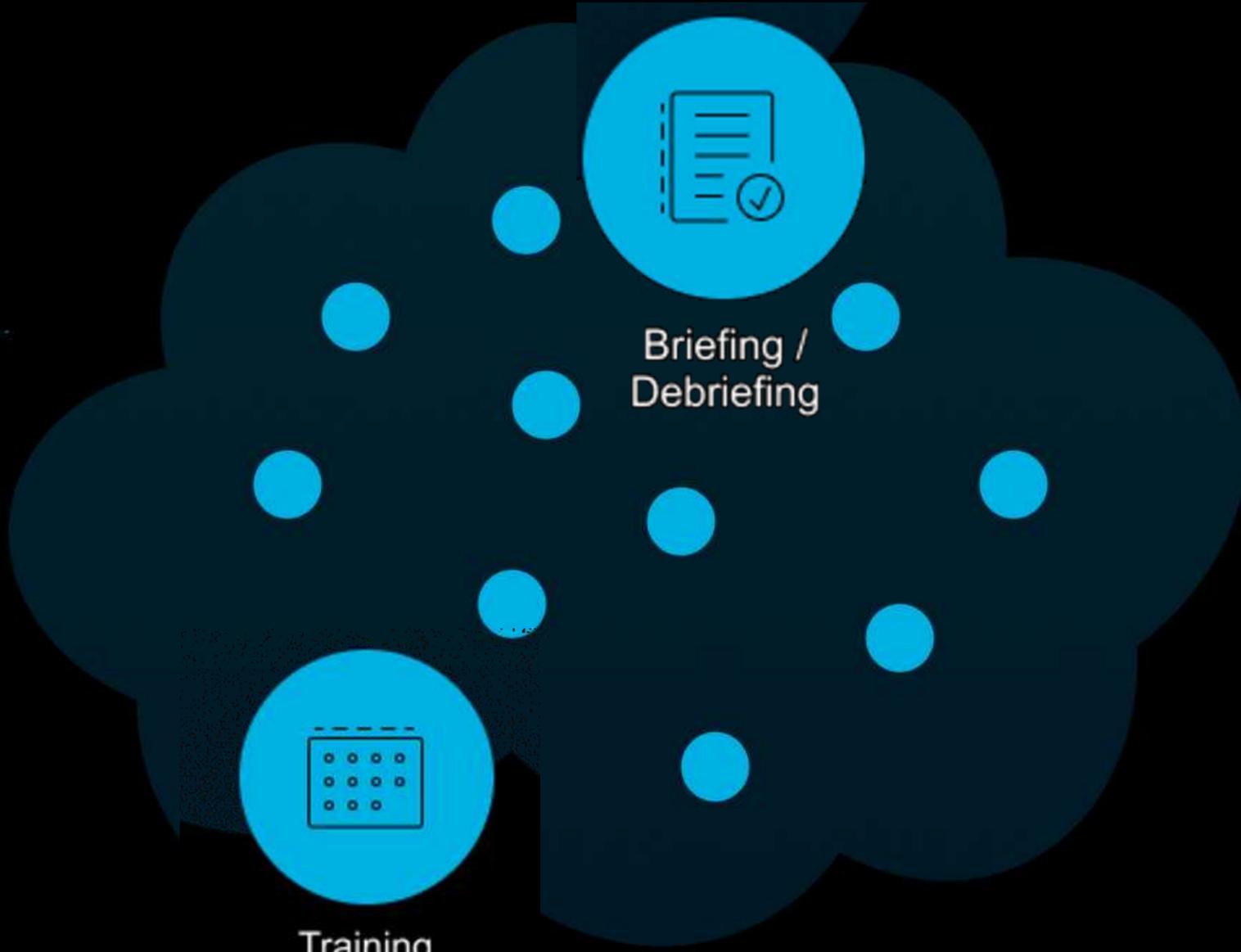
- Training** Simulator session Not booked **Mandatory**
- Training** Theoretical session Zermatt 15 Jan 2025 **Mandatory**
- Check** Zermatt 15 Jan 2025 **Mandatory**
- Simulator session** Not booked **Optional**

Timeline





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 **John Doe** Pilot

[Switch role](#) [See trainings & checks](#)

Past Sessions

- Training session** 17 Sep **A** Santa Monica 
- Training session** 22 Jul **A** Zermatt 
- Examination Session** 3 Apr **A** Mönchengladbach 
- Training session** 12 Feb **A** Zermatt 
- Training session** 13 Jan **A** Bern-Belp 
- Training session** 14 Dec 2023 **A** Dübendorf 
- Training session** 29 Sep 2023 **A** Zermatt 

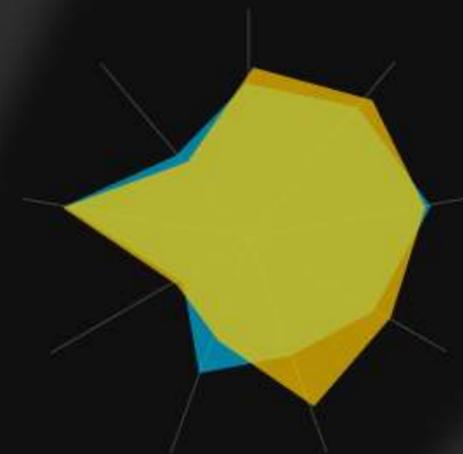




← Training session 17 Sep

Santa Monica

Pilot Competencies



[See details](#)

Next Session

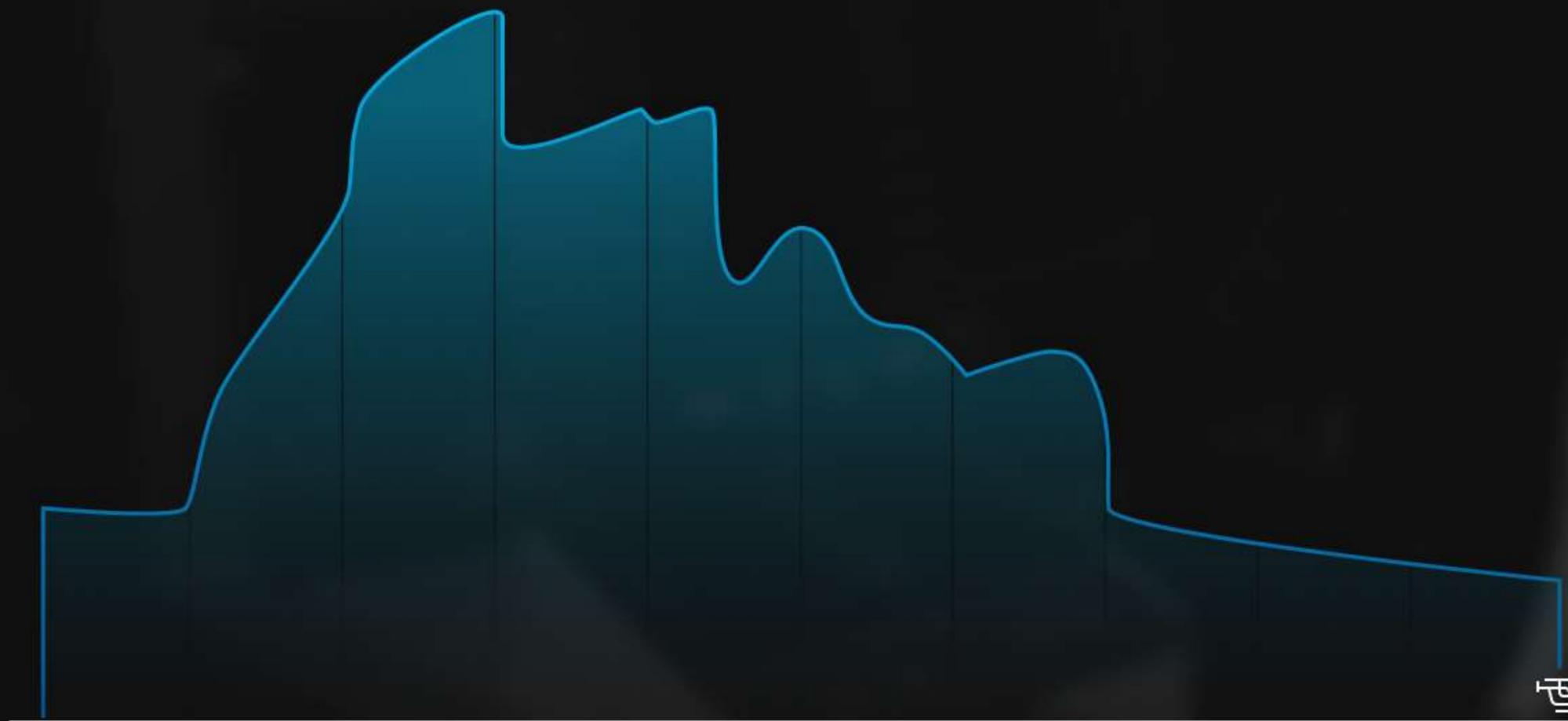
Recommendation based on lowest competencies rates

 Maneuver B 27%

 Maneuver G 29%

 Maneuver A 33%

[Book session](#)



Start-up

Hover

Transition
hover to
forward flight

Climbing

Level-off

Autorotation

Descending

Transition

Approach to
hover

Slope landing



← Training session 17 Sep

Santa Monica



Start-up

Hover

Transition
hover to
forward flight

Climbing

Level-off

Autorotation

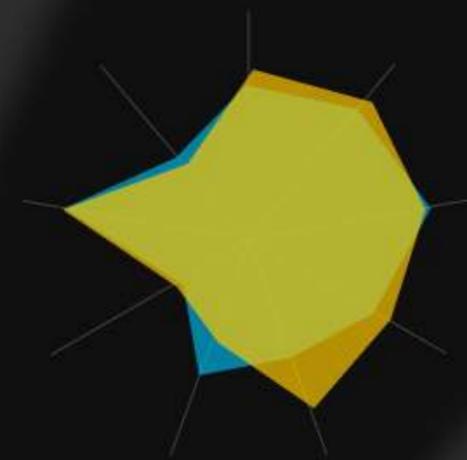
Descending

Transition

Approach to
hover

Slope landing

Pilot Competencies



[See details](#)

Next Session

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[Book session](#)

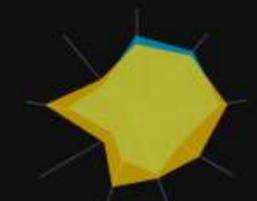




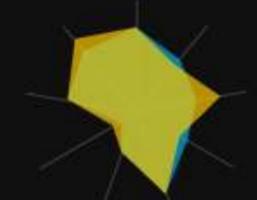
← Hover



Progress



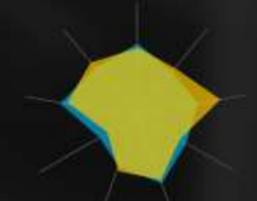
22 Jul vs. 3 Apr



3 Apr vs. 12 Feb



12 Feb vs. 13 Jan



13 Jan vs. 14 Dec 2023

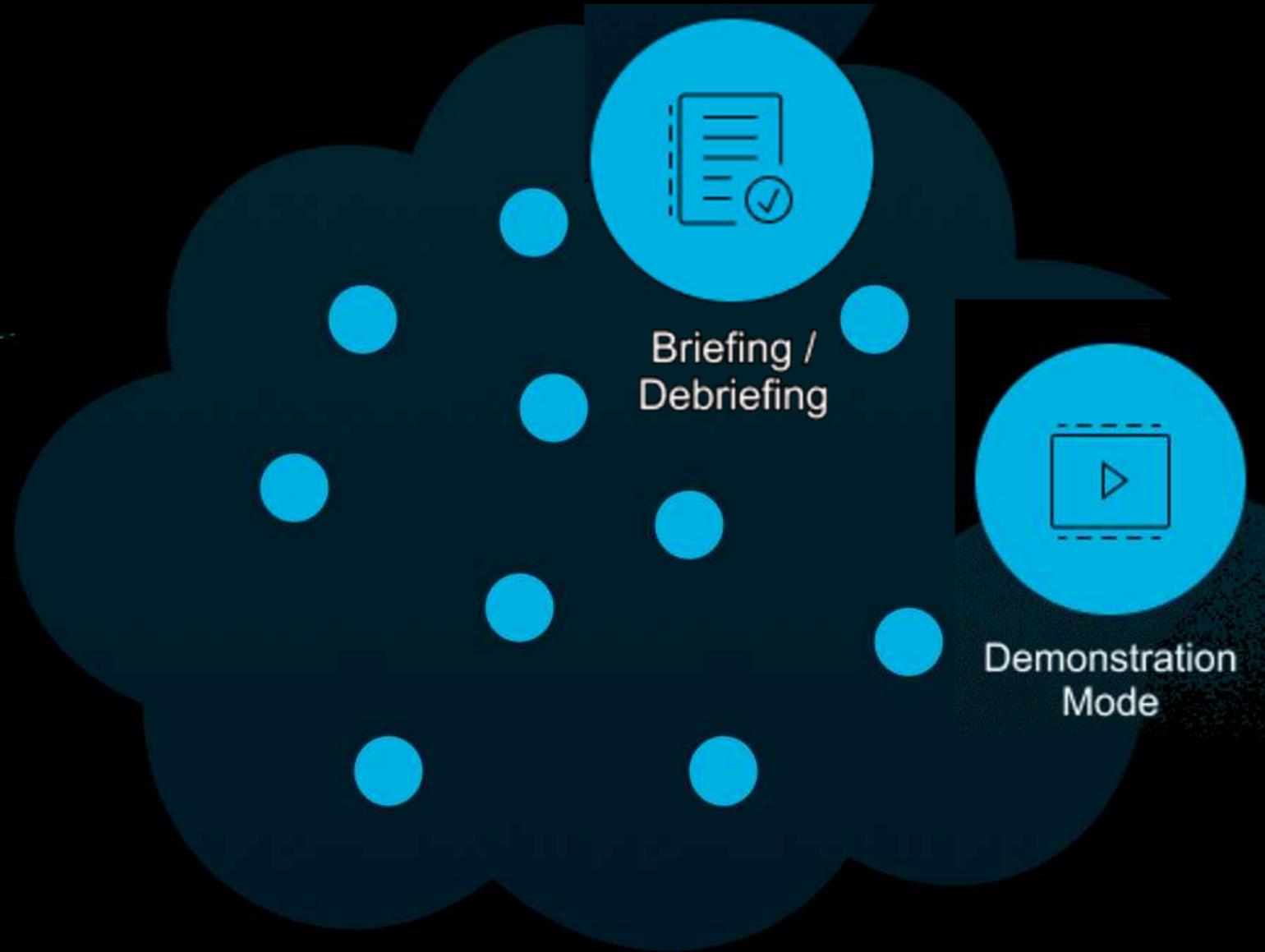


14 Dec 2023 vs. 29 Sep 2023





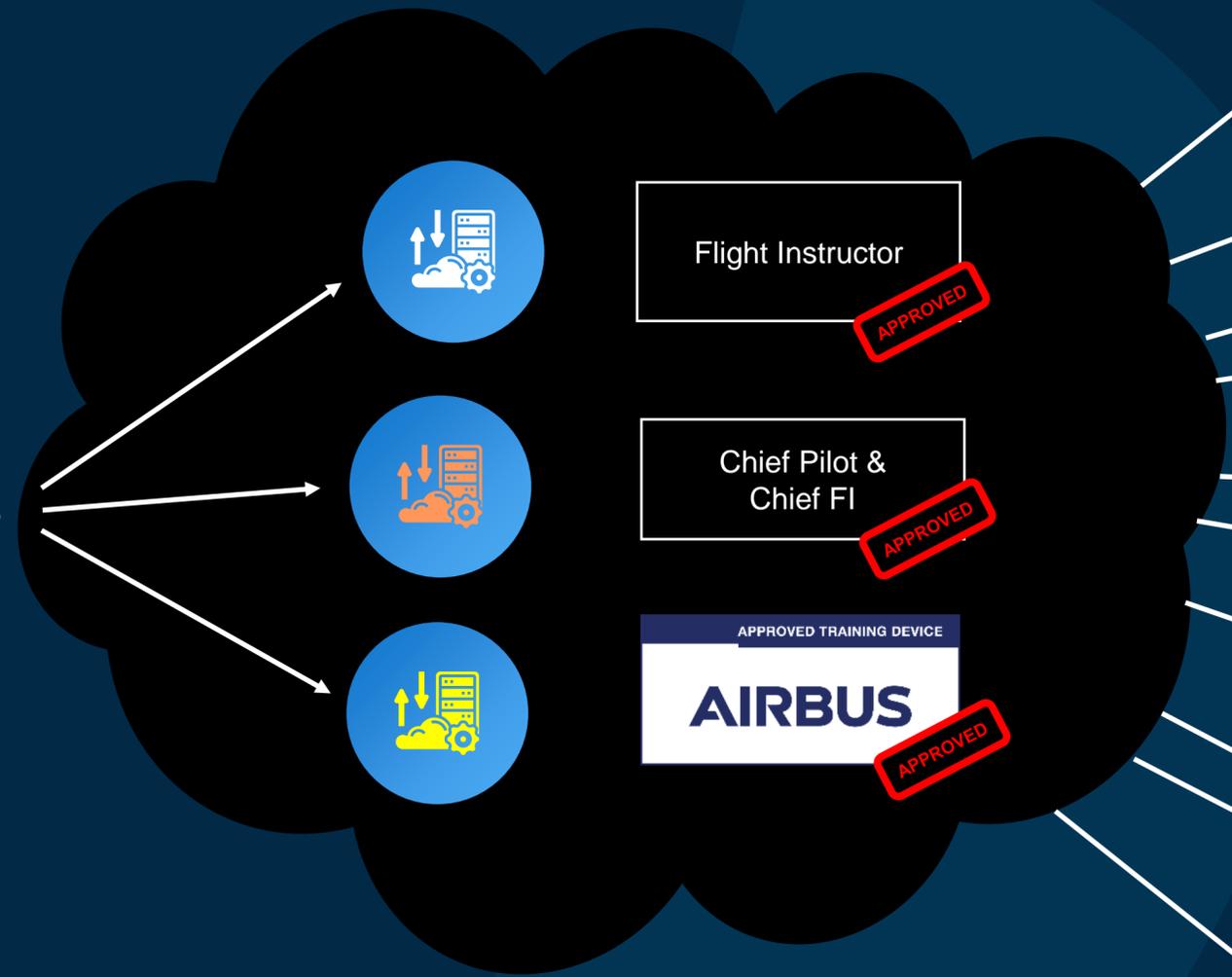
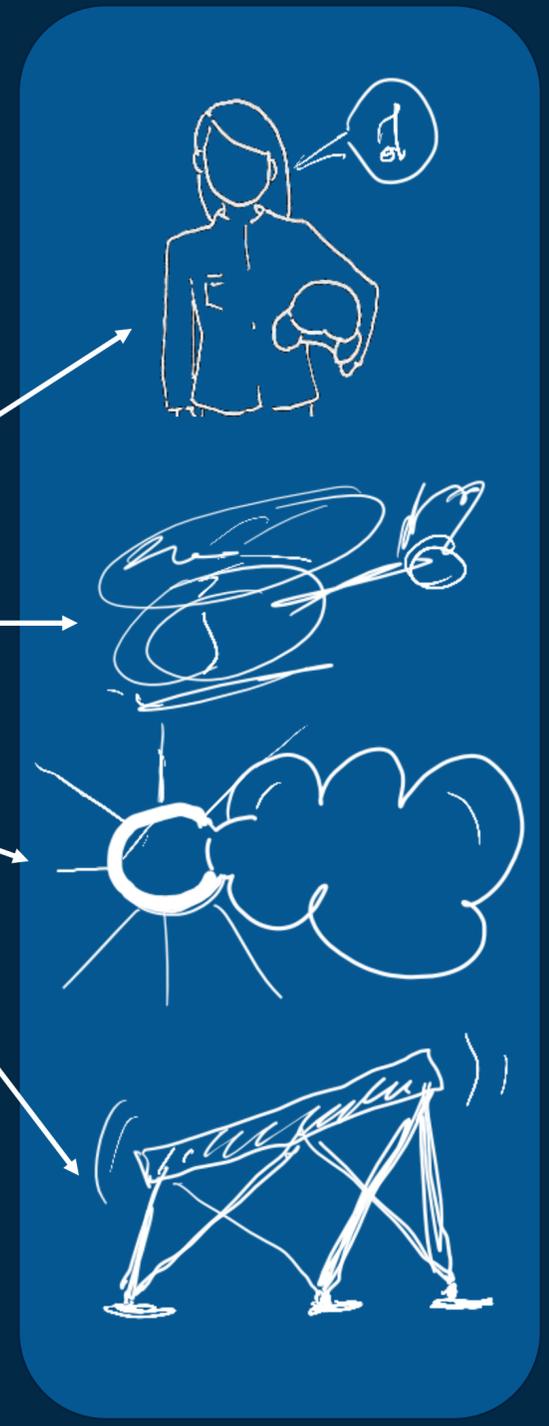
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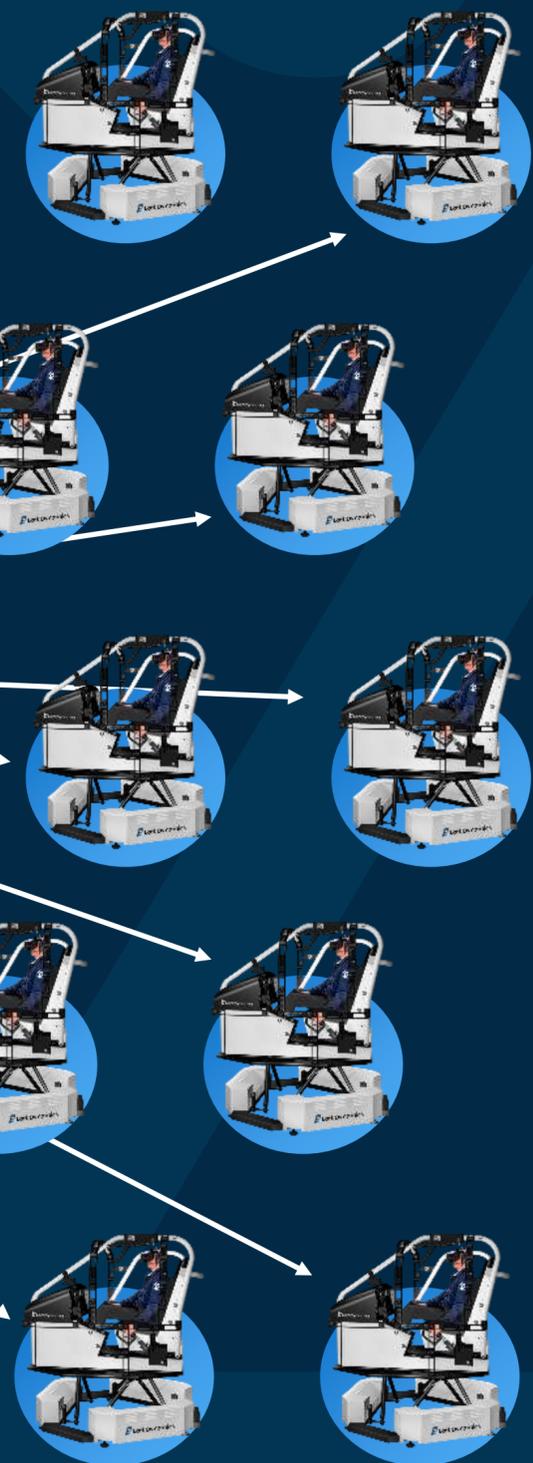
LofTWIN



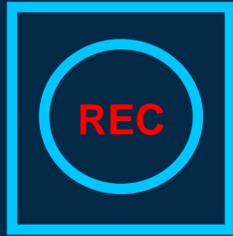
Instructor Pilot



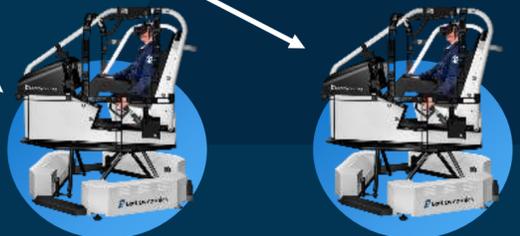
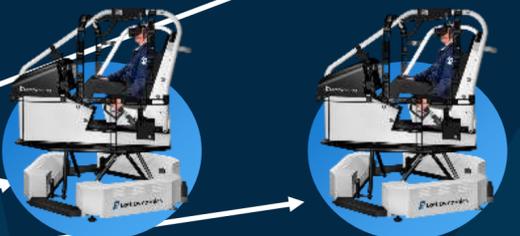
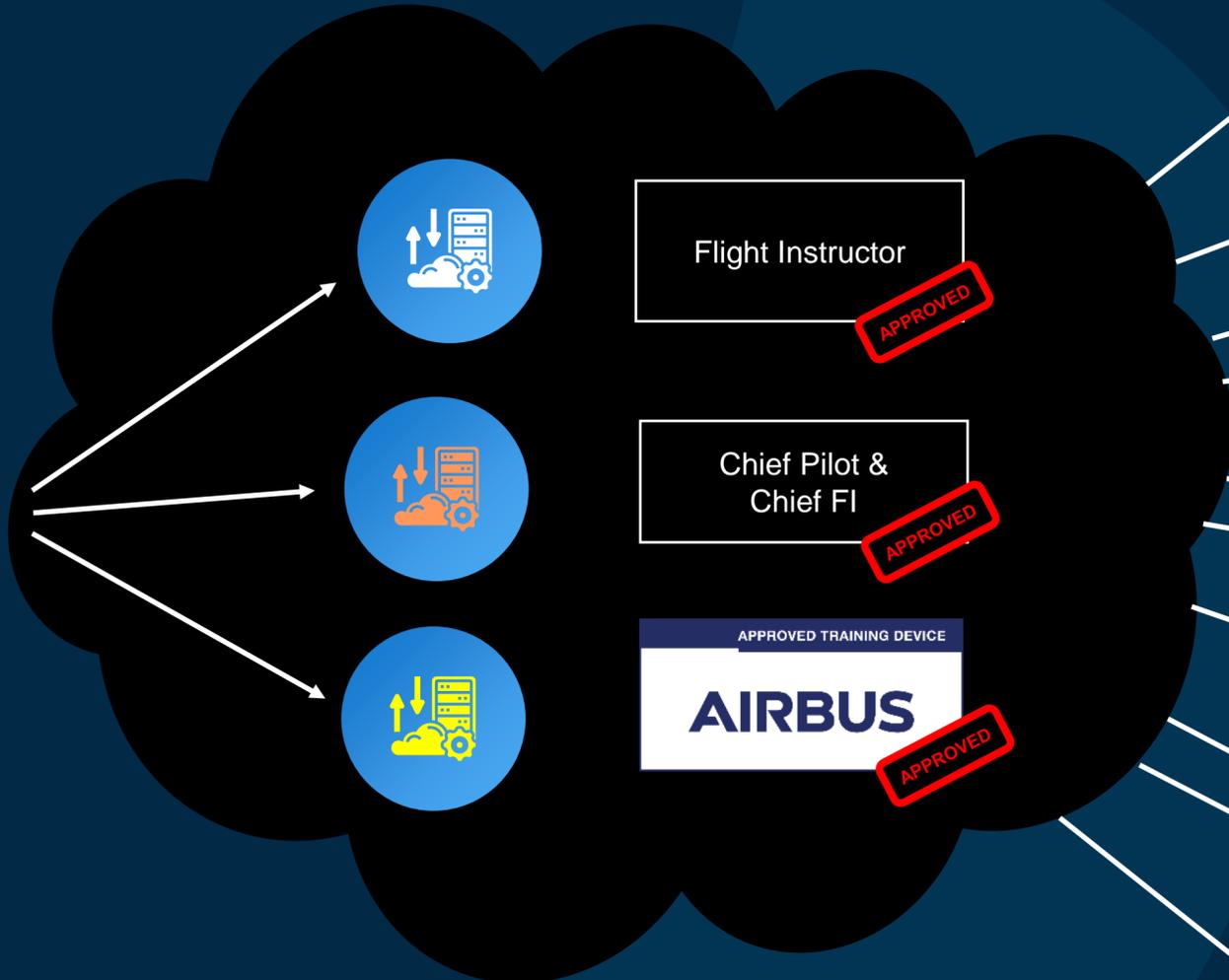
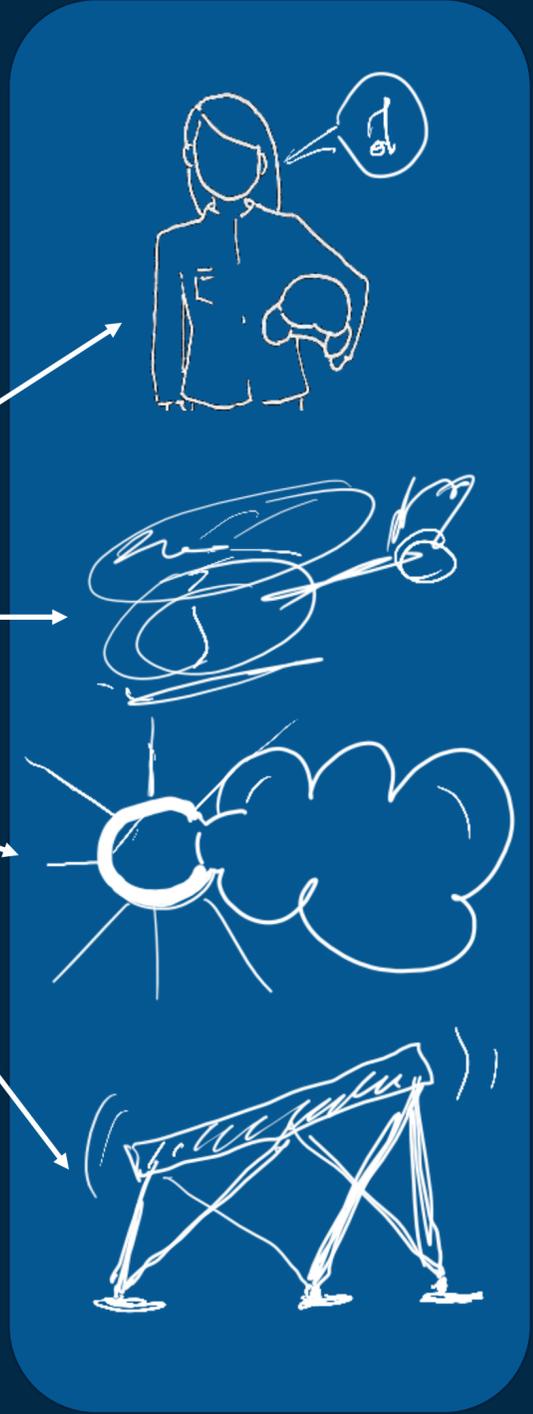
Student Pilot(s)



LofTWIN

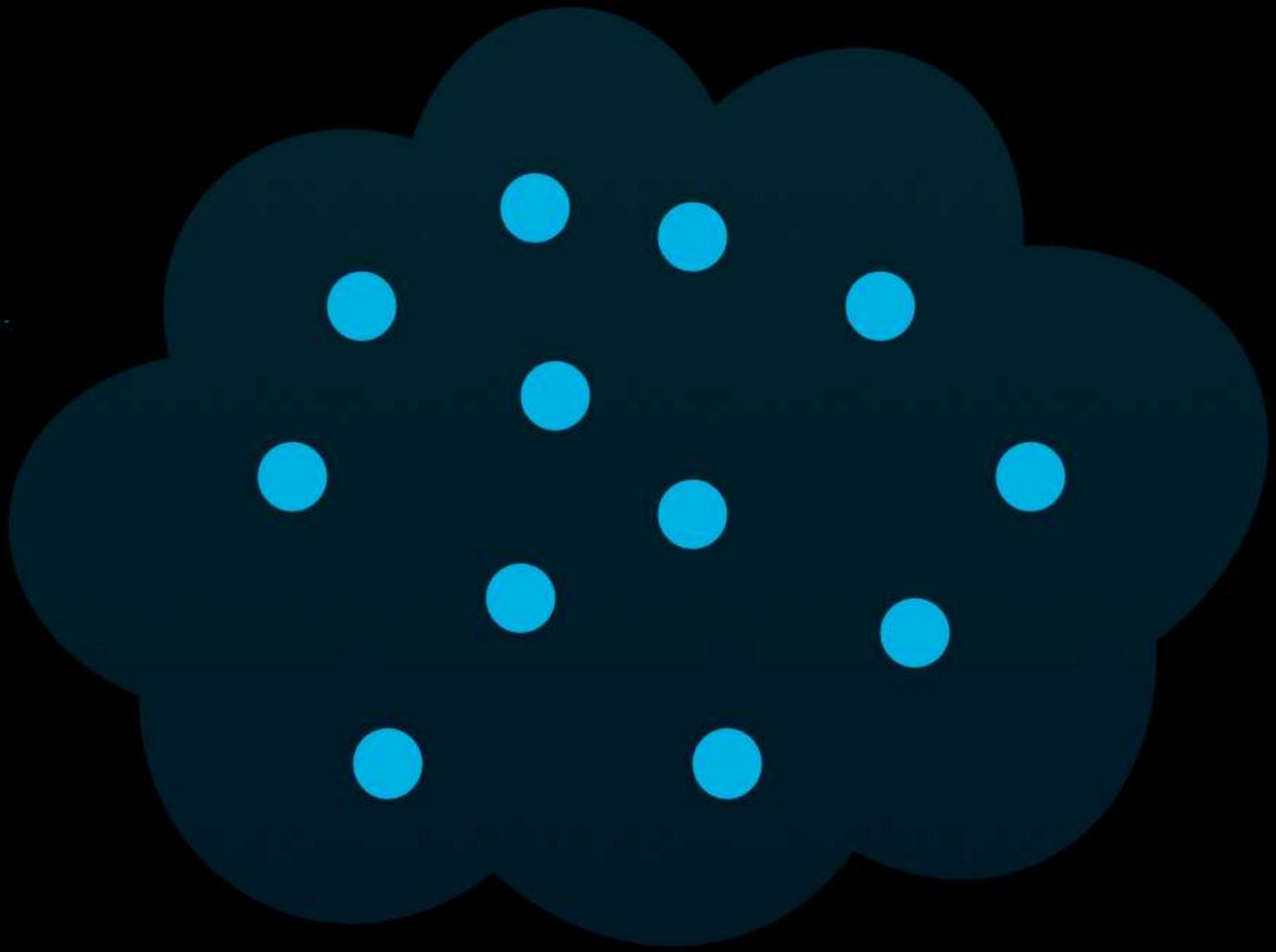


Instructor Pilot



Student Pilot(s)

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Loft-Home Kit



Loft-Cloud



Loft-SimNet





THANK YOU!

