

EASAs regelverksarbete då automation går mot autonomi

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LUSA
SCHOOL OF AVIATION

Tips!

Gör test för din AI-lösning:

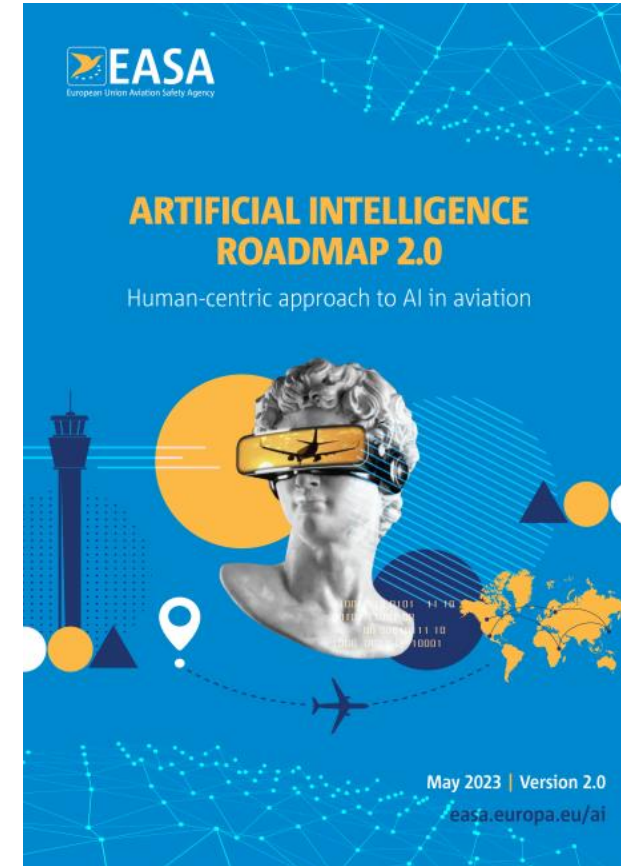
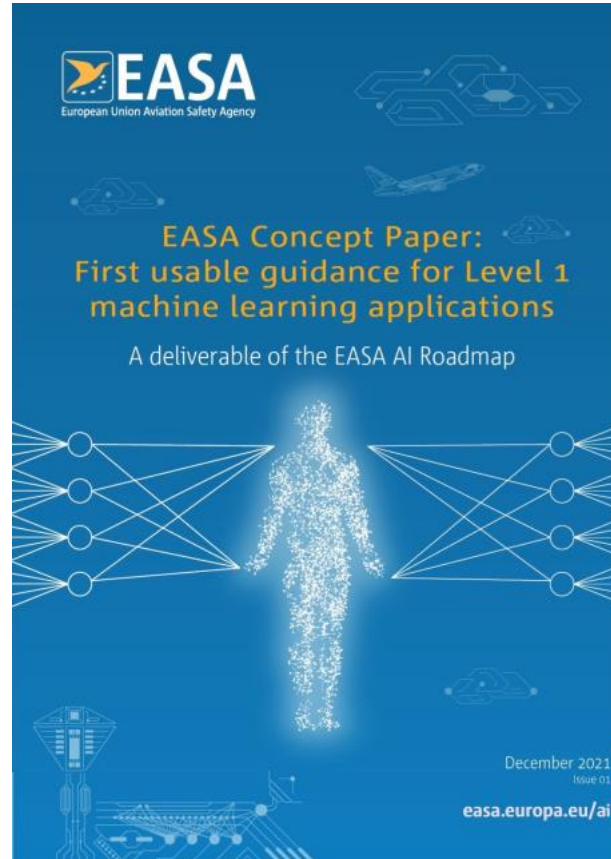
<https://artificialintelligenceact.eu/assessment/eu-ai-act-compliance-checker/>



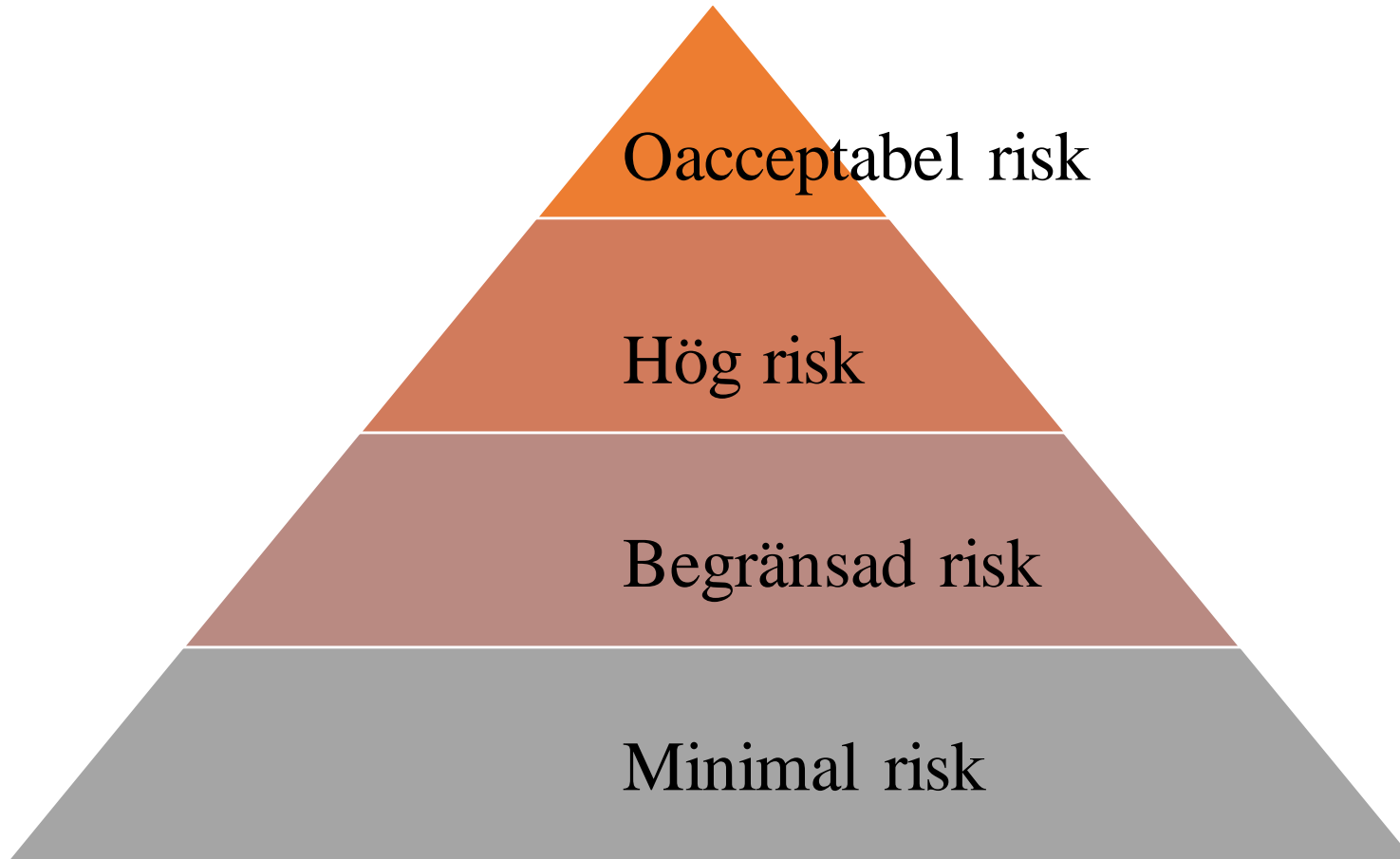
Tips!

Läs EASAs AI Roadmap:

<https://www.easa.europa.eu/en/domains/research-innovation/ai>



EU AI Act introducerar risknivåer



- Första steg, förbud mot AI med oacceptabel risk, väntas börja gälla ungefär från årsskiftet 24/25
- Riskklassificering
- Ökande krav
- Udd mot utvecklare av AI?
- Gäller även användning och vidareutveckling

Ett urval av pågående processer

Luftrum

- U-Space
- Detect and avoid

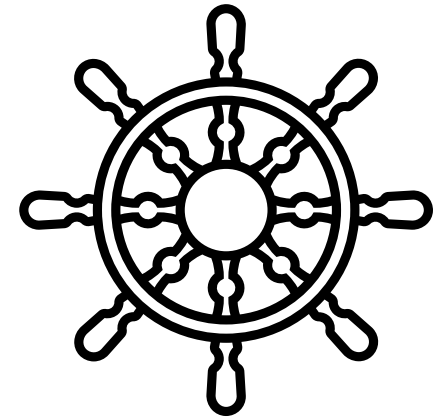
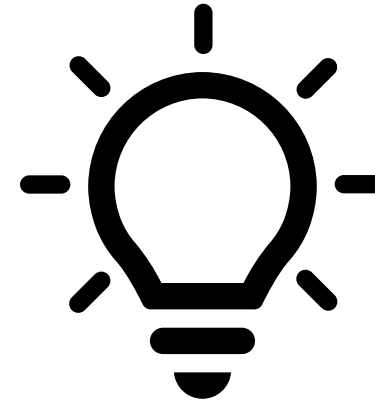
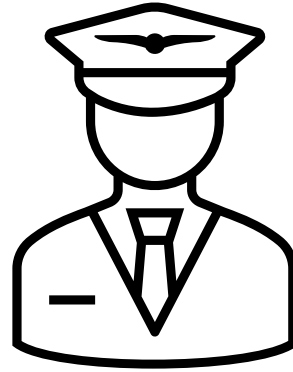
Pilot

- Certifiering
- **Ansvar**

Farkost

- Tillverkare
- Certifiering

RMT.0230 – PIC and remote pilots



Remote pilot definition

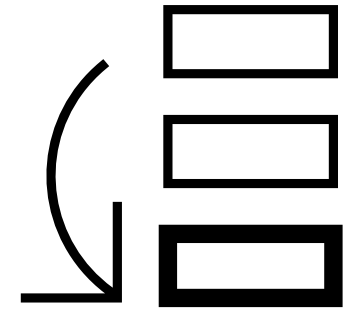
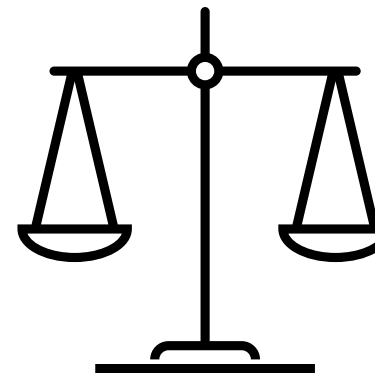
Situational awareness


Command vs control

Multiple command

Current rules applicability

Effect on other regulation





EASA Artificial Intelligence Roadmap

COMMAND


The **authority** vested in an individual for the direction, coordination and control of functions and tasks required for a flight operation. Such authority may be exercised either **directly** by executing the flight operation, or **by directing** other individuals/organizations involved in the flight operation



EASA Artificial Intelligence Roadmap

CONTROL

The **management and execution** of functions and tasks required for a flight operation consistent with a command authority



EASA Artificial Intelligence Roadmap

AUTOMATION


The use of control systems and information technologies **reducing the need for human input**, typically for repetitive tasks



EASA Artificial Intelligence Roadmap

AUTONOMY


The ability to perform tasks in complex environments **without input by a human**



Difference between control and command


‘Remote pilot’

A person charged by the operator with **duties essential** to the operation of a remotely piloted aircraft and who **manipulates the flight controls**, as appropriate, during flight time
(ICAO Manual of Remotely Piloted Aircraft Systems (ICAO Doc 10019))



Difference between control and command

A **natural** person responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and **remaining able to intervene** and change the course at any time. (Article 3(31) of Regulation 2018/1139 and Article 3(27) of Regulation 2019/945)




Difference between control and command

‘Remote pilot-in-command’

The remote pilot designated by the operator as being in command and charged with the **safe conduct of a flight.**

(ICAO Manual of Remotely Piloted Aircraft Systems (ICAO Doc 10019))



Difference
between control
and command

**‘Remote pilot-in-command’ in EU
legislation
TO BE DEFINED**

Responsibility

‘Responsibility of pilot-in-command’
The pilot-in-command of an aircraft shall, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air, except that the pilot-in-command may depart from these rules in circumstances that render such departure absolutely necessary in the interests of safety.

(ICAO Annex 2, Chapter 2, Article 2.3.1)



Authority

‘Authority of the pilot-in-command’
The pilot-in-command of an aircraft shall have final authority as to **the disposition of the aircraft** while in command
(ICAO Annex 2, Chapter 2, Article 2.4)



Implications

What is safe conduct of flight?

What are its implications in terms of competence, responsibilities and authority?

How is this affected by shared and distributed responsibilities?

Conclusion

- Definitions of command and control
- Differentiation of flight commander and mission commander
- Differentiation on RP and RPIC roles for multiple UAS