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Office fédéral de l'aviation civile OFAC  
Ufficio federale dell'aviazione civile UFAC  
Federal Office of Civil Aviation FOCA



# Update Safety & Risk Management

**Marc Keusch, Head SRM**

3. May 2024, Zentrum Paul Klee (ZPK) Bern



# Agenda



## A. Data – Information – Knowledge

- ▶ Evidence-based oversight




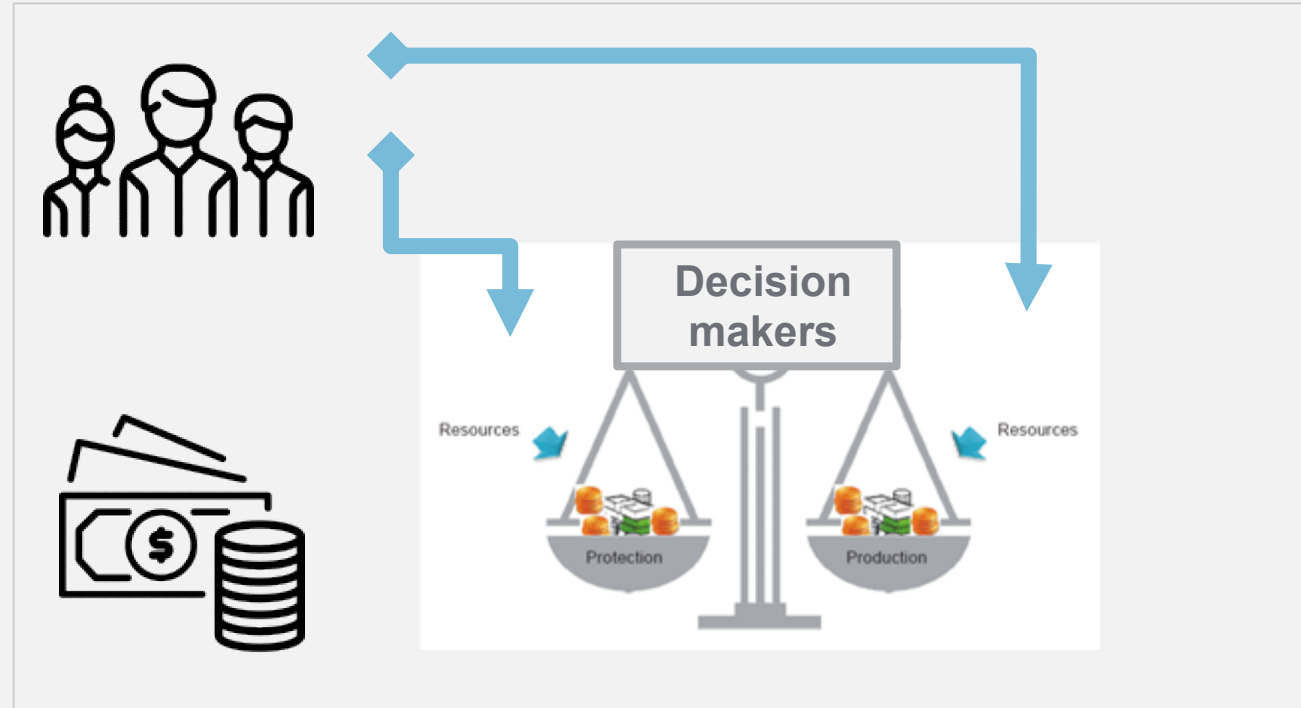
## B. Safety Culture

- ▶ Safety as an Attitude





# Production vs. Protection



Today?  
Will we still be  
tomorrow?

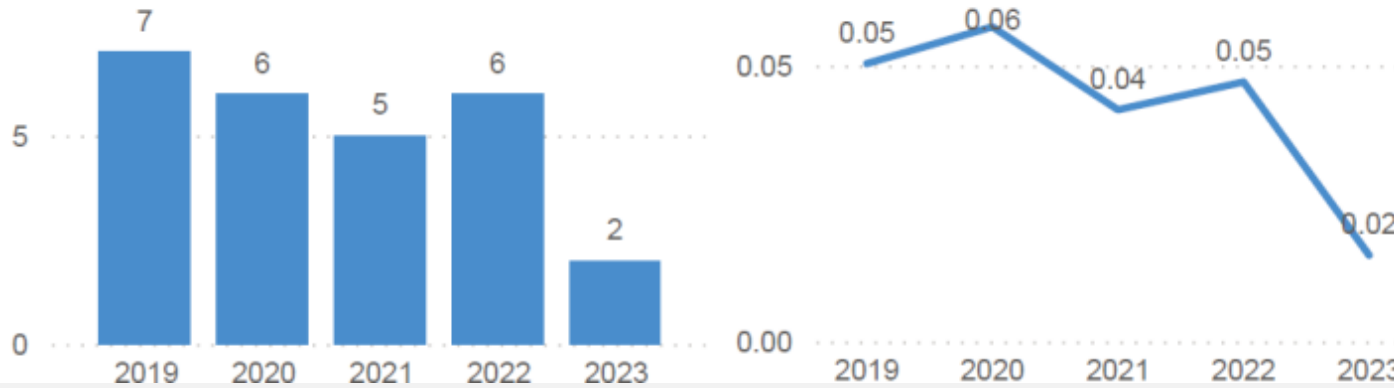
► Are we still in balance?



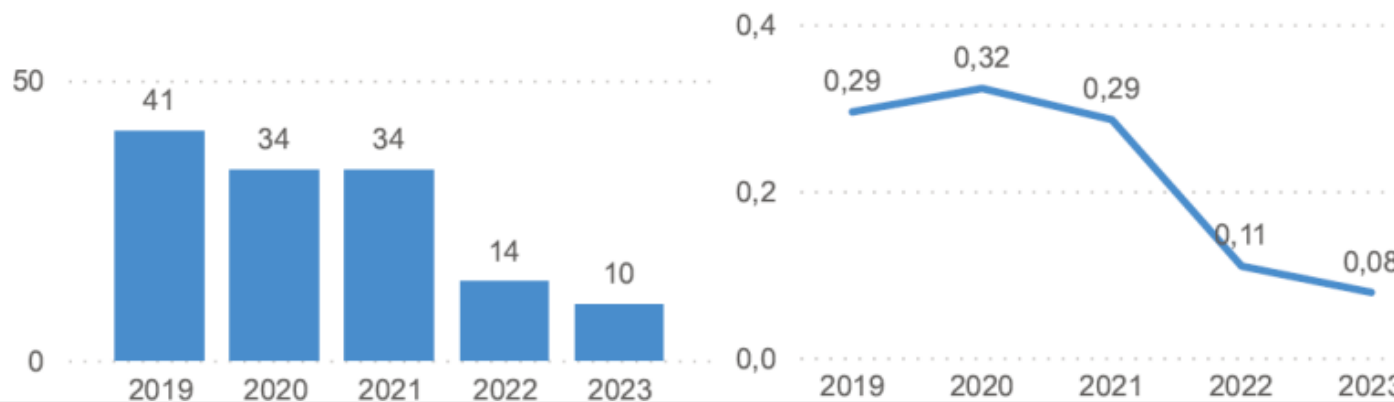
# Accidents / serious incidents 2019-2023



Number of fatal Accidents / fatal Accidents per 10'000 Movements CH



Number of serious incidents / serious incidents per 10'000 Movements



See ASR2023

Are we doing better?

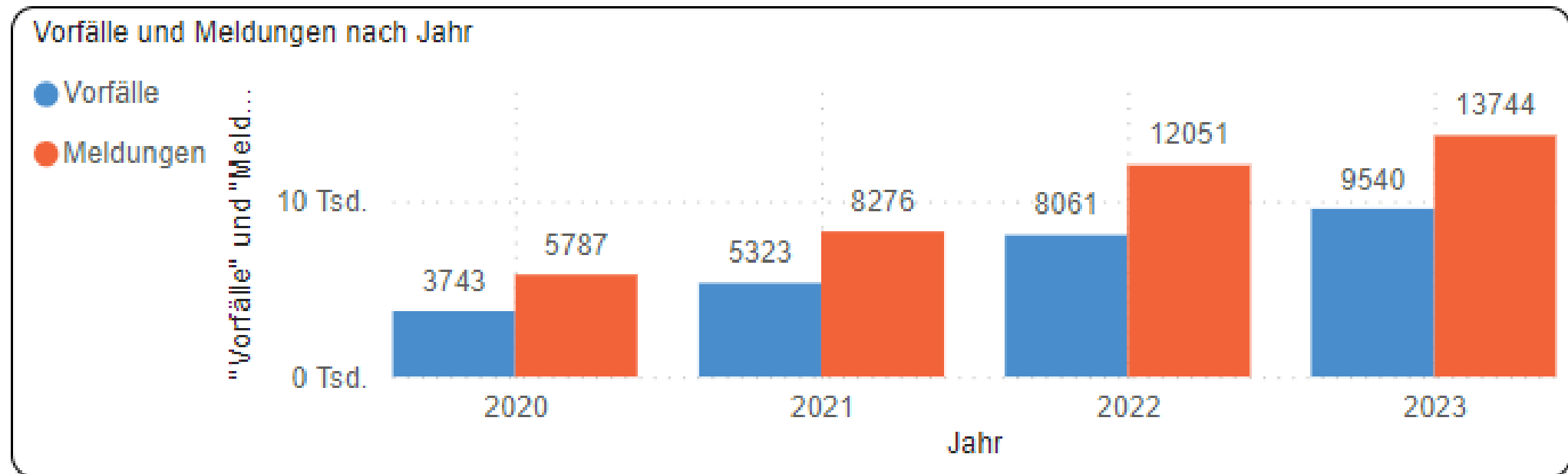
- Just coincidence?
- The law of small numbers
- Results of efforts?



# Occurrence Reporting System 376/2014



- Almost 14'000 occurrence reports in 2023
- More occurrences: less safe or just an improved reporting culture or both?



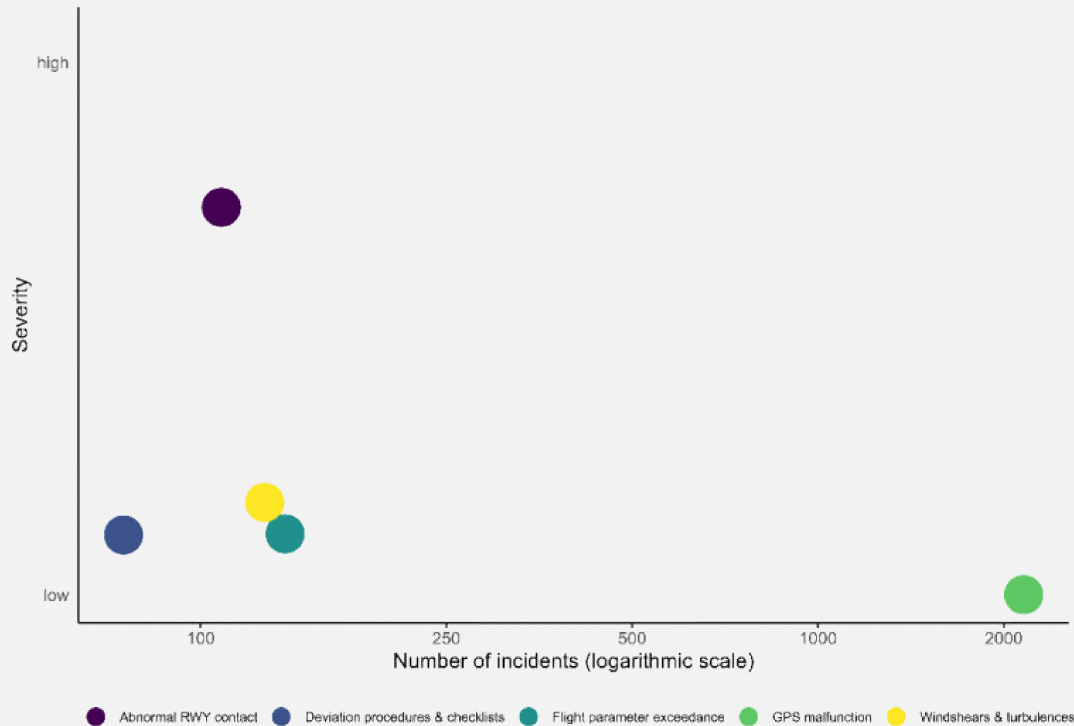


# Safety issues with aeroplane ops

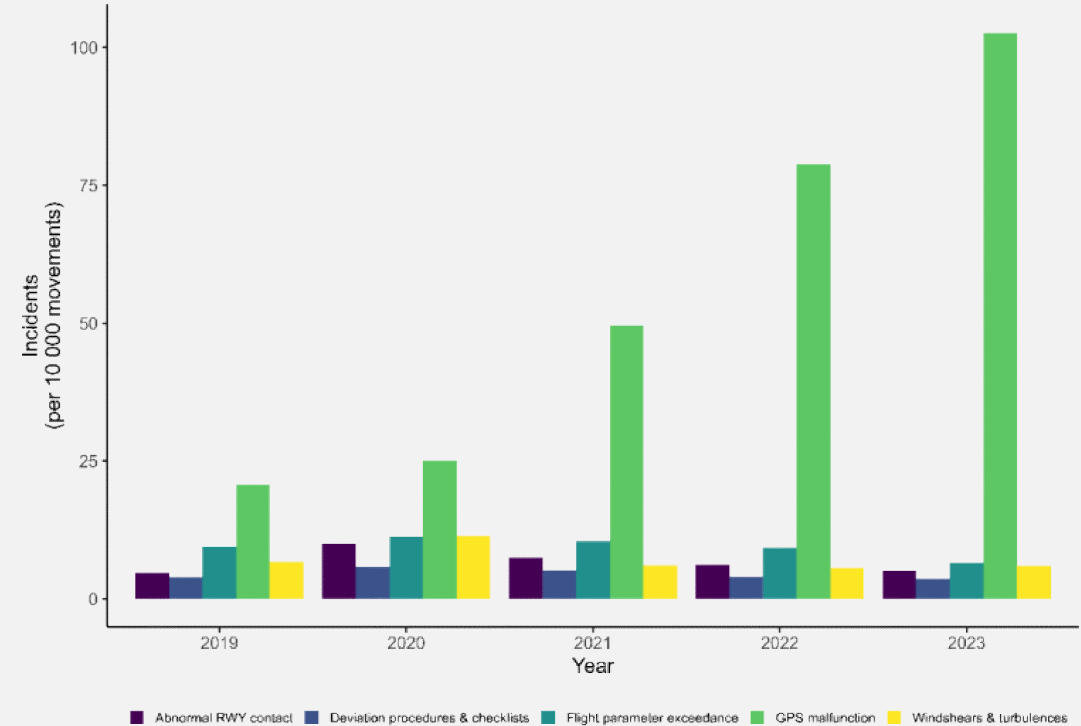


## 5 Top Safety Issues

Distribution 2023



2019-2023



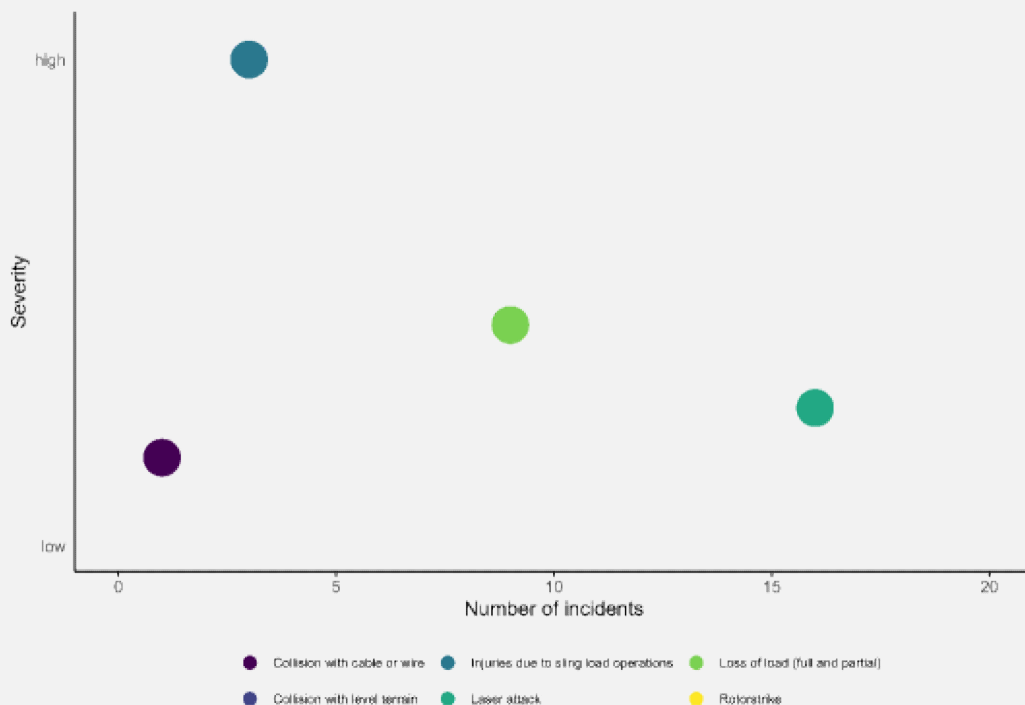


# Safety issues with helicopter ops

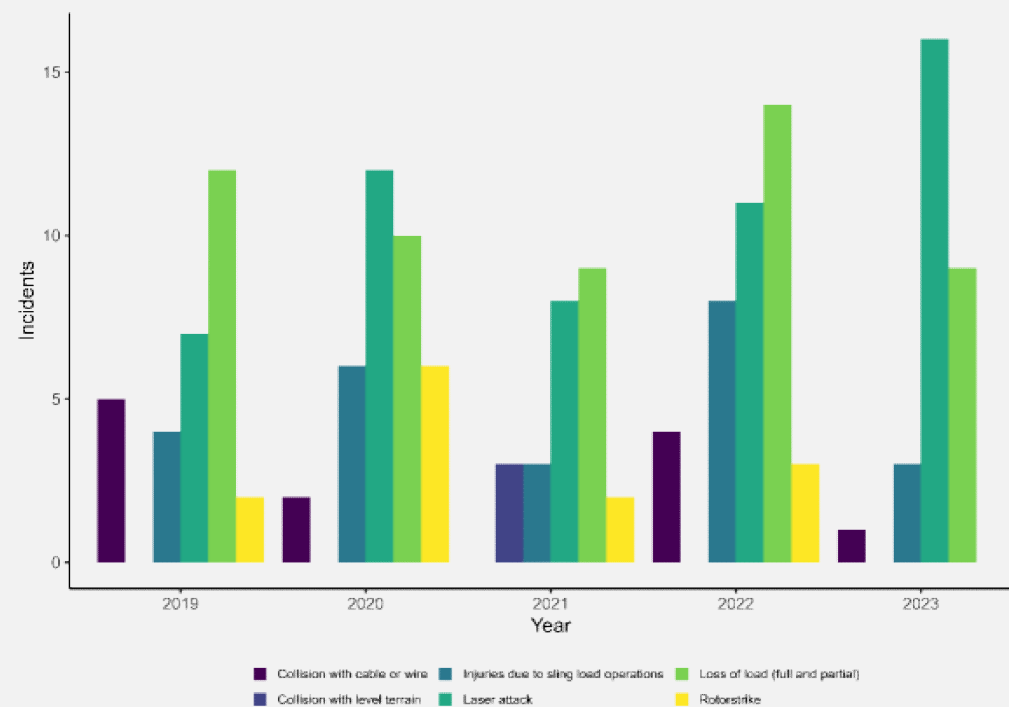


## 4 Top Safety Issues

Distribution 2023



No of incidents 2019-2023



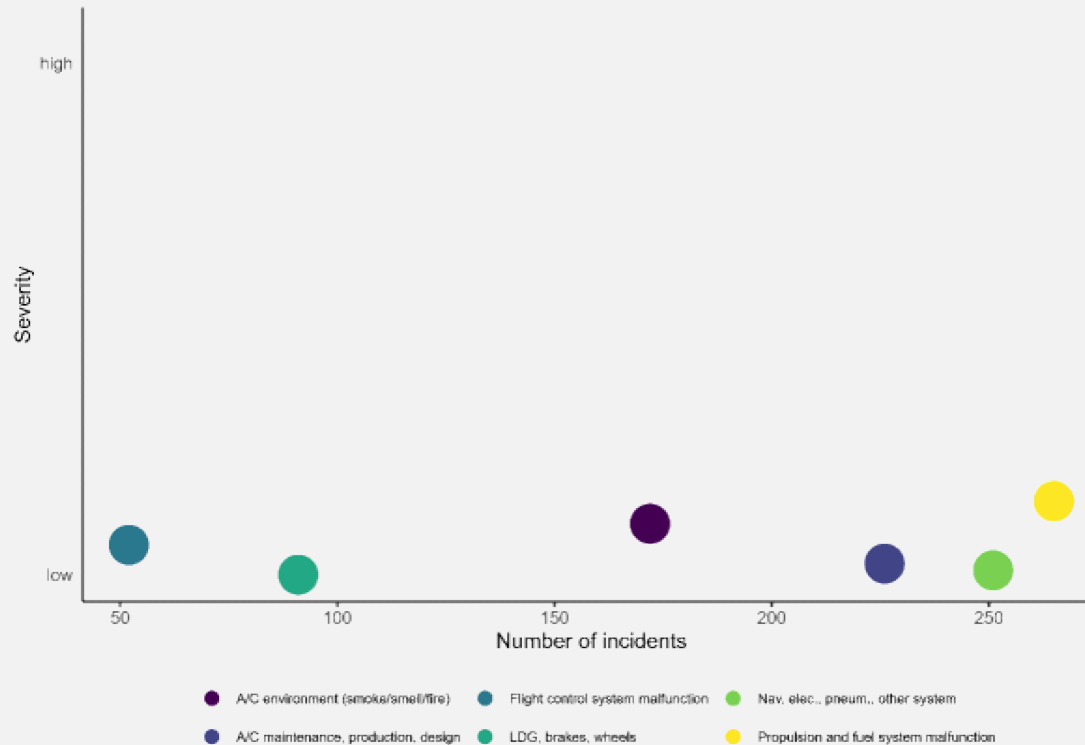


# Safety issues with technical features

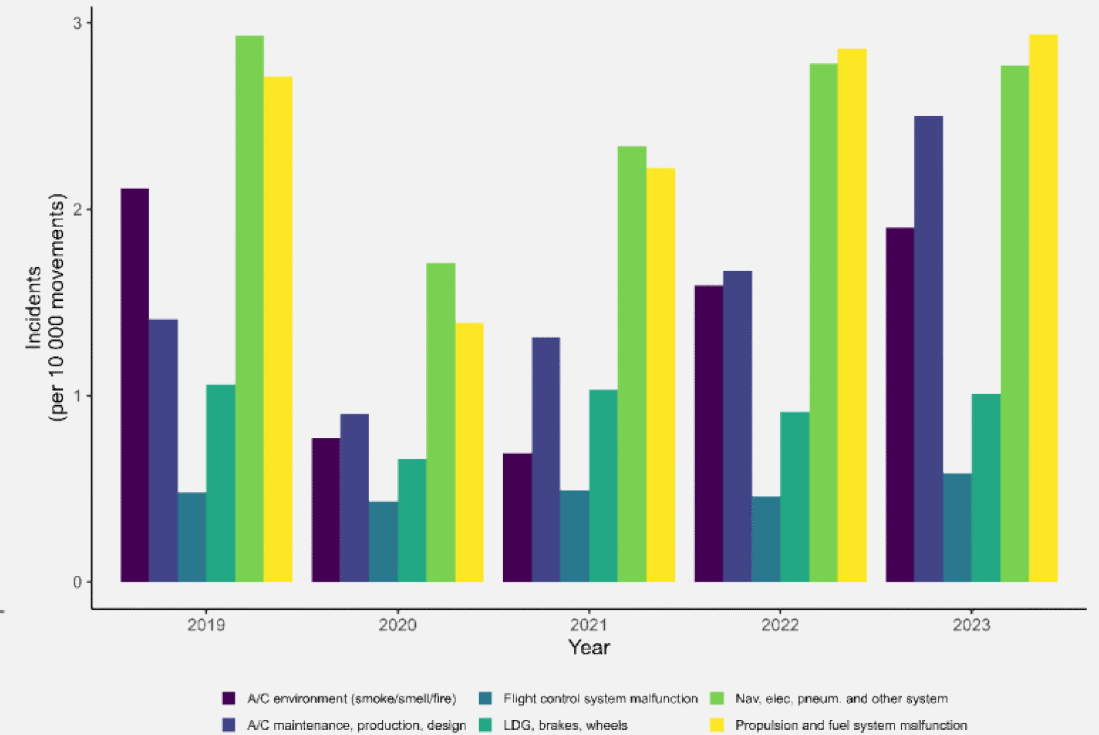


## 6 Top Safety Issues

Distribution 2023



2019-2023











# Operational Safety Risks



-  Airprox incidents with low severity
-  GPS Jamming incidents
-  wrong baggage/cargo loading
-  IT-system relevant incidents with safety impact

## No negative trend:

- Airprox between aircraft – Unmanned Aircraft System (UAS)
- Birdstrikes
- fatigue-related incidents with safety impact



# Systemic Safety Risks



- Mid-Air Collision within or close to TMA ZRH or at specific hotspots (Delta/Echo airspace)
- Ground Collision at Zurich Airport between departing/landing aircraft and taxiing aircraft
- Various threats in crisis areas
- Know-How-loss (baby-boomer) in conjunction with reduced resilience of generation Z
- Fast-paced regulation environment





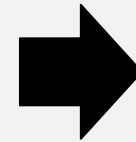
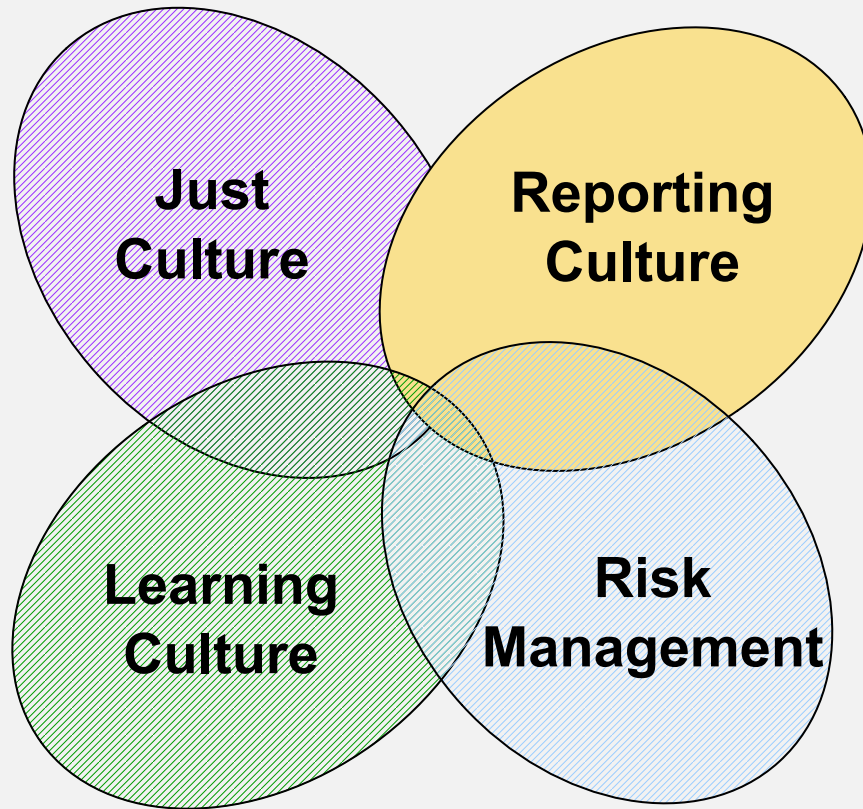
# Conclusion



- No blind spots, weak signals are omnipresent
- No directional change with regards to main safety issues (RPBO)
- Systemic issues: mitigations measures last a long time
- Safety culture is paramount



## B – Elements of Safety Culture



- Dependencies between elements
- Slow and gradual development
- lasting impact on safety level
- **Personal conduct and behavior**



# 4 Ps - Culture in an organisational context



## Philosophy

- Mission Statement, code of conduct, vision, strategy

## Policies

- Regulations, directives,
- Policy manuals

## Procedures

- Procedures, work Instructions
- SOP



## Practice

...the way things are done when nobody is watching...



# FAA – Boeing takeaways

- The trust is gone
- Maximum return
- Quality defects
- “Don’t care” mentality



## Boeing 737 Max Maneuvering Characteristics Augmentation System

### Activates automatically when:

- Angle of attack is high
- Autopilot is off
- Flaps are up
- Steeply turning

MCAS pushes the jet's nose down to reduce the risk of stalling



MCAS moves the horizontal stabilizer trim upward at .27° per second up to 2.5° and 9.26 seconds at a time

### Deactivates when:

- Angle of attack is sufficiently lowered
- Pilots override with manual trim



# Afternoon workshop



Safety Culture – Boeing case study



Just Culture – Update and case studies

