

# ADDRESSING CYBERSECURITY IN CIVIL AVIATION


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# 1. CYBERSECURITY IN THE AVIATION CONTEXT

- ❖ misunderstood notion of cooperation and equality
- ❖ **security** = the prevention of intentional and (to a certain extent) accidental misuse
- ❖ *security is coupled with safety*



## 2. SAFETY AND SECURITY – GLOBAL SYSTEM



- ❖ system safety depends on adequate system security and adequate system reliability
- ❖ non-secure system = not reliable
- ❖ not reliable = not safe

### 3. FAILURE OF THE SYSTEM AND AVIATION RELATED EVENTS

❖ ROANOAKE  
PHANTOM

❖ MOUNT  
EREBUS  
DISASTER





# 3.1. Potential targets and ways of attacking

## Targets:

- ❖ air traffic control (ANSP)
- ❖ airports
- ❖ operators

## Ways:

- ❖ single weak links
- ❖ intentionally
- ❖ malicious



## 4. ICAO 39<sup>th</sup> ASSEMBLY

- ❖ application of safety management systems
- ❖ cooperation in order to develop global framework for civil aviation to address the challenges of cybersecurity
- ❖ increase the resilience of the global aviation system

- ❖ define responsibilities
- ❖ common understanding of cyber threats and risks
- ❖ systemic sharing of information
- ❖ cybersecurity culture
- ❖ international standards
- ❖ policies and resources
- ❖ ICAO cybersecurity framework



# 5. CONCLUSIONS

- ❖ safety, security and reliability – **INTEGRATED**
- ❖ awareness, education and training
- ❖ better security of the product line

**DO NOT IGNORE RISKS**

# THANK YOU!

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