

# 6<sup>th</sup> DATS Workshop on Digital Air Traffic Services: Workload and Safety Assessment



AMPLIFY TEAMWORK WITH AUTOMATION



**SAAB**

2019



## Workload and Safety Assessment

2020



2021





# Workload and Safety Assessment



2023





2024



# Workload and Safety Assessment



8 days ago !!



# 6<sup>th</sup> DATS Workshop on Digital Air Traffic Services: Workload and Safety Assessment

- 13:00 – Billy Josefsson, Tatiana Polishchuk, Christiane Schmidt : welcome notes, round table, introduction
- 13:30 – **KEYNOTE** Gabriele Enea, MIT Lincoln Laboratory: Integrating Weather Data into ATC Decision-Support Tools – Human Factors Lessons Learned from the Development of Operational Prototypes
- 14:15 – Coffee break
- 14:45 – Laurie Marsman, Michelle Bont, NLR: Eye-tracking and AI: classifying fatigue and workload in ATCOs using Machine Learning
- 15:15 – Boel Stefansson, LFV: Validations exercises within the IFAV3 project (increased flexibility of ATCOs deployment)
- 15:45 – Lothar Meyer, LFV: Automation Surprise in Air Traffic Control: Causes, Frequency, and Safety Implications
- 16:15 – Technical break
- 16:30 – Helena Sjöström Falk, IFATCA: Digitalisation and AI in air traffic control: balancing innovation with the human element
- 17:00 – Johan Holmér, Arlandasamordningen: Coordination for Arlanda's future development
- 17:15 – Discussion, closing notes
- 19:00 – Networking event at **THE LAMP restaurant** (sponsored by LIU)

Day 1



# 6<sup>th</sup> DATS Workshop on Digital Air Traffic Services: Workload and Safety Assessment

8:45 – Gathering

9:00 – **Gunilla Björklund, Jan Andersson**, VTI – Train dispatchers' experience of workload and working environment

9:30 – **Vishwanath Bulusu**, Crown Consulting, USA: Where can we fly? – Reimagining Airspace with Digitization for Novel Entrants!

10:00 – Coffee break

10:30 – **KEYNOTE Ruth Stilwell**, Aerospace Policy Solutions, LLC: Digitalization and ATC in Aviation's Info-Centric Future

11:15 – Discussions

11:45 – **Niclas Gustavsson**, SAAB, closing notes: Saab Integrated Digital Tower Suite – platform for accelerated digitalization

12:00 – Lunch at **VY NKPG** (Sponsored by SAAB)

Day 2

6

- Time keeping = key!
- For the Hybrid ppl, Write questions in the Chat, Chair will let you talk
- As always, be to the point with your question / remark

19:00 – Networking event at THE LAMP restaurant  
(sponsored by LIU)

The ultimate networking and further detailed discussion about  
the future, life and everything. Make some new friends!







# Emerging Themes for coming DATS.....

- Multiple remote tower? operational implementation
- Capacity to deal with the increase of traffic
- Difficulties with hiring new controllers
- Reconsider working conditions for controllers to keep them longer (when to retire?)
- New requirements in connection to new AI/other technologies
- Jamming/spoofing, security related
- Better use of the existing controllers
- Better use of simulators in training
- Railway: recruitment process - keeping the dispatchers
- Bridging research to operations!
- Quality of information to be processed
- Human integration to the systems
- Integration of new entrants and the associated challenges
- Multimodelling - other modes of transportation
- Industrial involvement in the research + feedback loop
- Expand to other areas safety-critical





# What's in the Research pipe for DATS, 3,4,5-10 yrs ahead

- Labelinteraction (less or no need for e strip)
- Workload monitoring
- Automatic Speech Recognition
- Attention Guidance supported by AI
- Weather prediction and integration in operational concept
- New sensors
- Augumented Reality where it helps
- Automation support for training and verification of competence
- Resilient Strategies for multiple information sources ( RE5 ☐ X10 ☐ hybrid i/f)

From  
DATS