



# SafeOPS

## Impact Evaluation of an Ai-driven Decision Support Tool

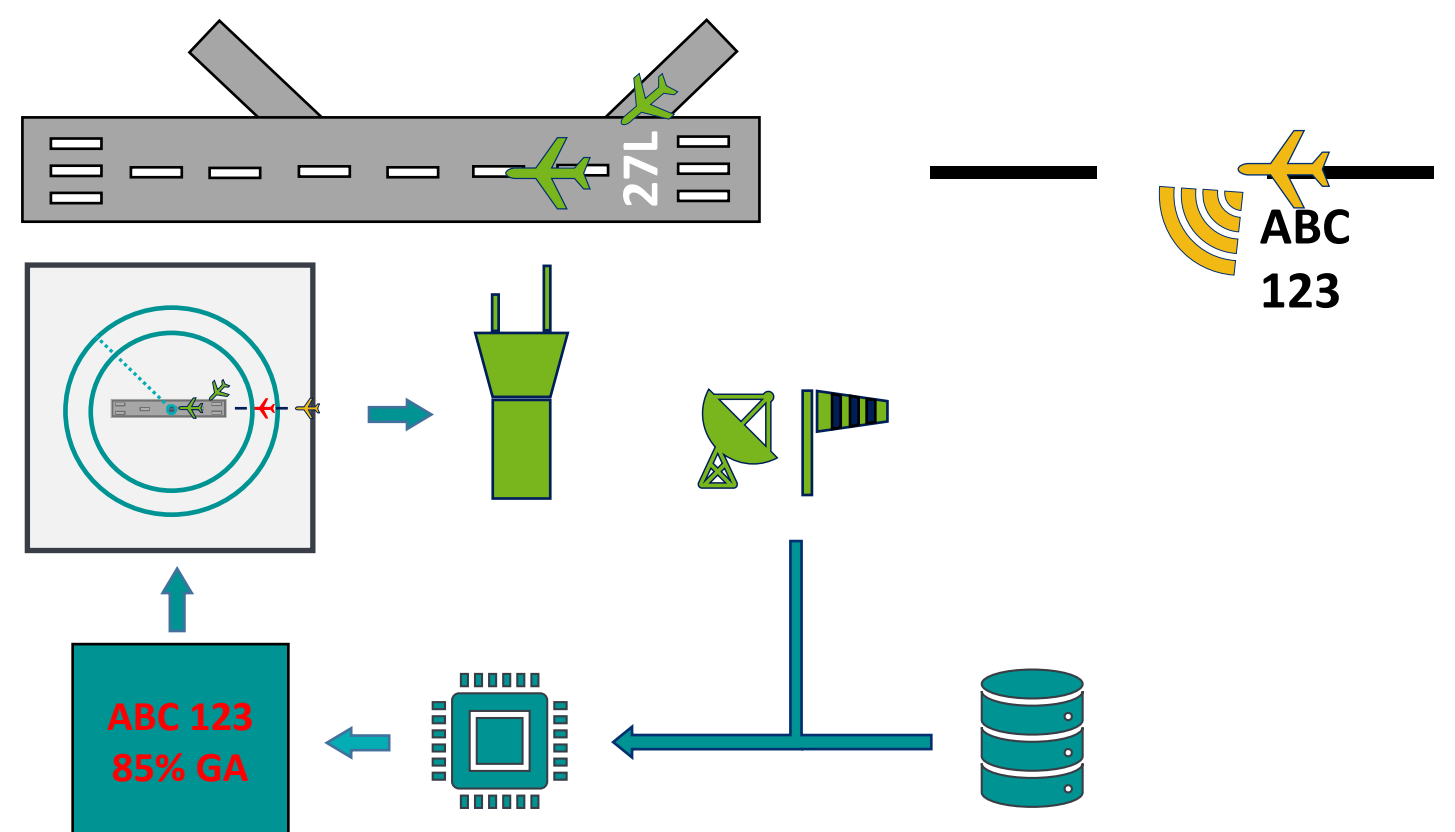
### For Go-Around and Approach Handling

### Introduction

Go-arounds can be complex to handle, especially in case of dens traffic and conflicting missed approach and departure procedures.

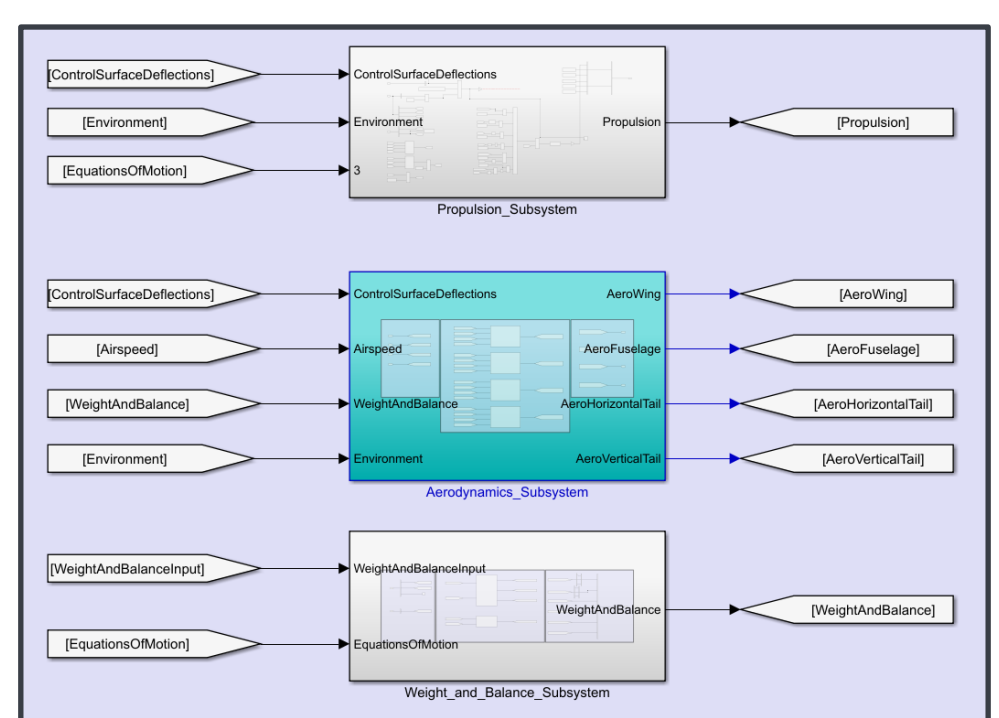
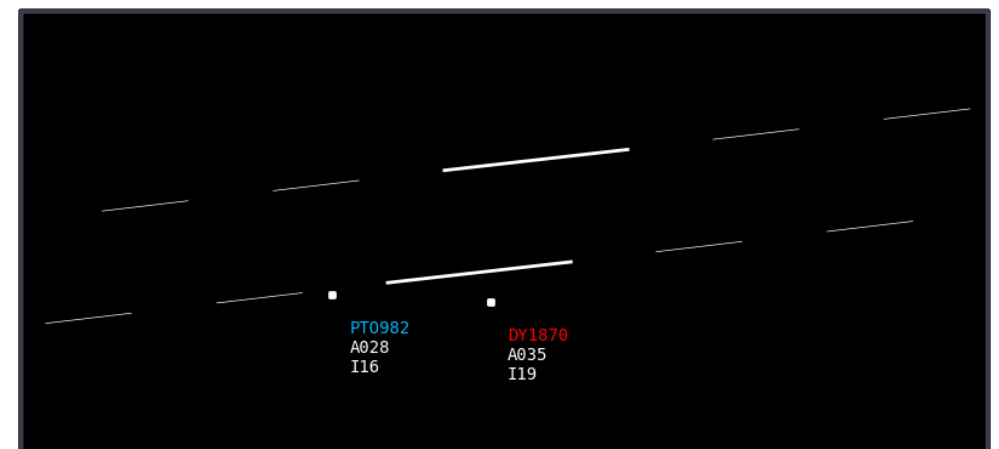
Can predictive risk information, provided to ATCOs, benefit the **safety and resilience** of ATM?

To investigate these questions, SafeOPS developed a low fidelity simulation environment and performed exercises with Air Traffic Controllers.



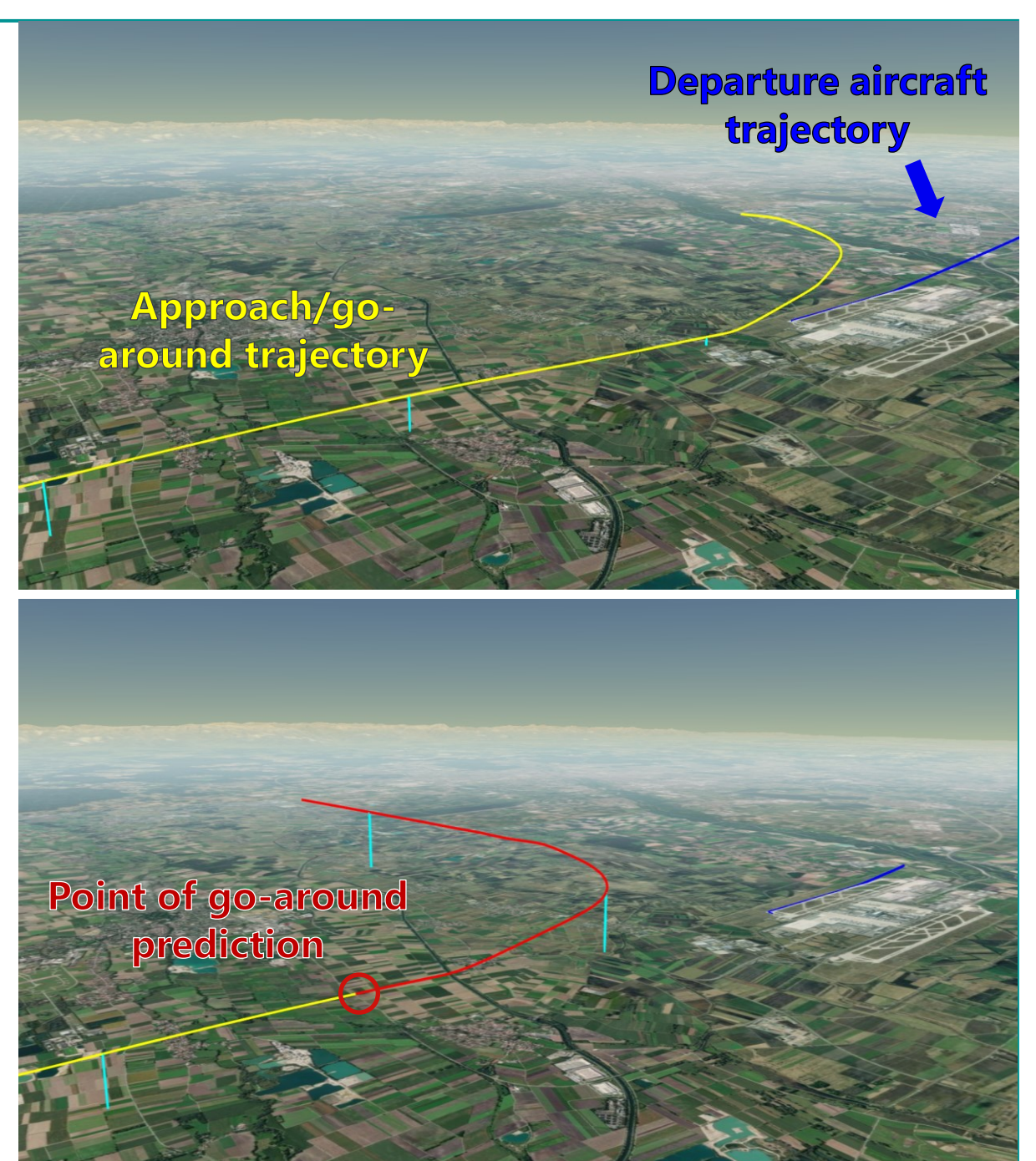
### Low Fidelity Simulation

- A python-based radar screen visualization tool, which allows for easy modifications of displayed information and color schemes
- Simulink based approach- and departure aircraft models, which can be controlled according to the Air Traffic Controller's commands.
- Simulation can be run on a Laptop in real time, allowing for flexible sessions.



### Results

- + True go-around predictions, occurring before a take-off clearance for preceding departure, **provide a safety benefit.**
- + True go-around predictions **decrease the overall and peak workload** of Air Traffic Controllers and **increase resilience.**
- × False predictions **reduce capacity** and increase overall and peak workload.
- ± Precision of a go-around prediction of a prototype developed in SafeOPS is ~87%.



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