



# **BADA Workshop** *Feedback from industry*

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# Trajectory Prediction in ATC

## What is a trajectory for ATC

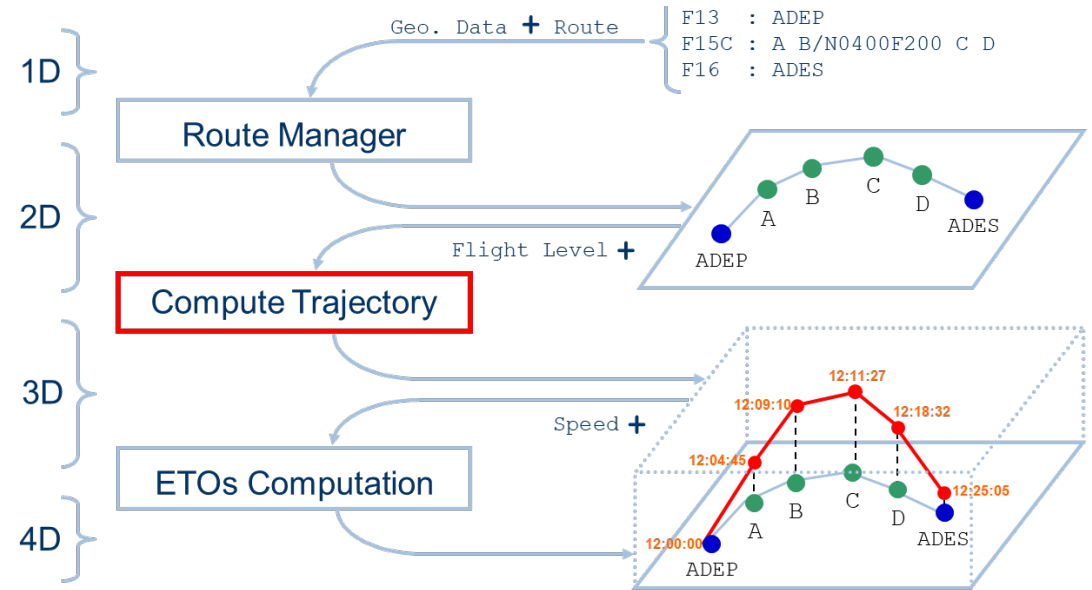
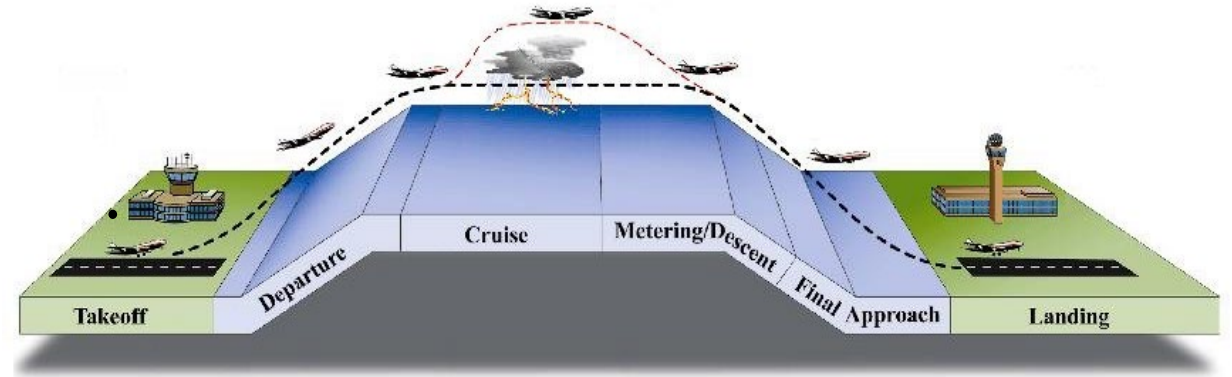
- 2D waypoints
- Requested Flight Level (RFL)

## Then, ATC computes at each points

- Levels
- Speeds
- Time

## By using aircraft performances

- Dataset
- Eurocontrol BADA
- others



# Use of Eurocontrol BADA

## Why improving TP by using Eurocontrol BADA

- Unique and shared aircraft performances
- Use of estimated mass and temperature to refine computation
- Accuracy of ETO and Speed
- Accuracy of ToC and ToD
- Improved boundary estimate (resulting in improved AIDC coordination)
- Better knowledge of climbing and descending profile evolution

## For what purpose

- Better crossed sector detection in complex airspaces
- Medium term conflict detection
- Better anticipation in dense airports for the arrival

# Yes but, ...

## Potential issues

- Introducing BADA model in current ATC system vs. Major upgrade of FDP BADA compatible
- Lacking Take of Weight and Temperature information
- Missing model for aircrafts used in the region
- Impacts of performances of the current ATC system

Solutions exist at Thales to  
minimize impacts of current ATC systems or  
transition to new enhanced FDP fully compatible with BADA model