

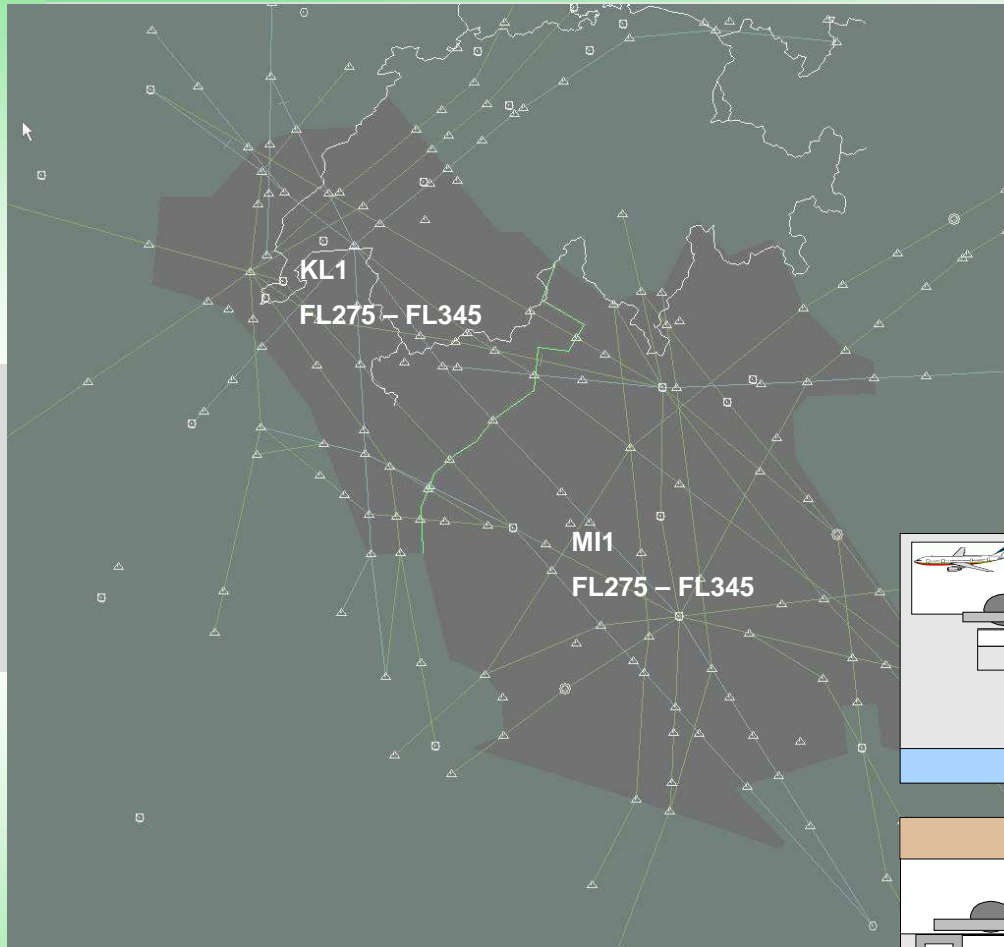


# CONTRACT-BASED AIR TRANSPORTATION SYSTEM (CATS)

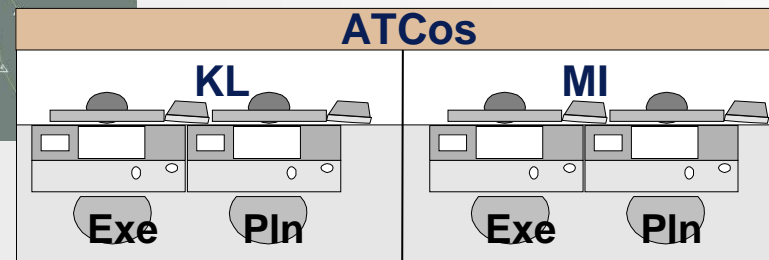
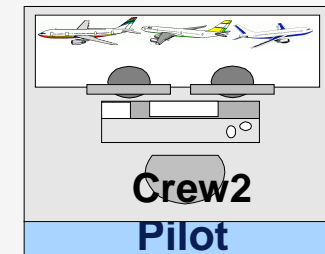
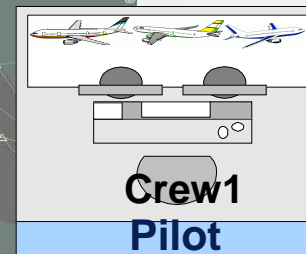
## Platform presentation

Presented by Pierre Henri Guisan  
SkySoft-ATM

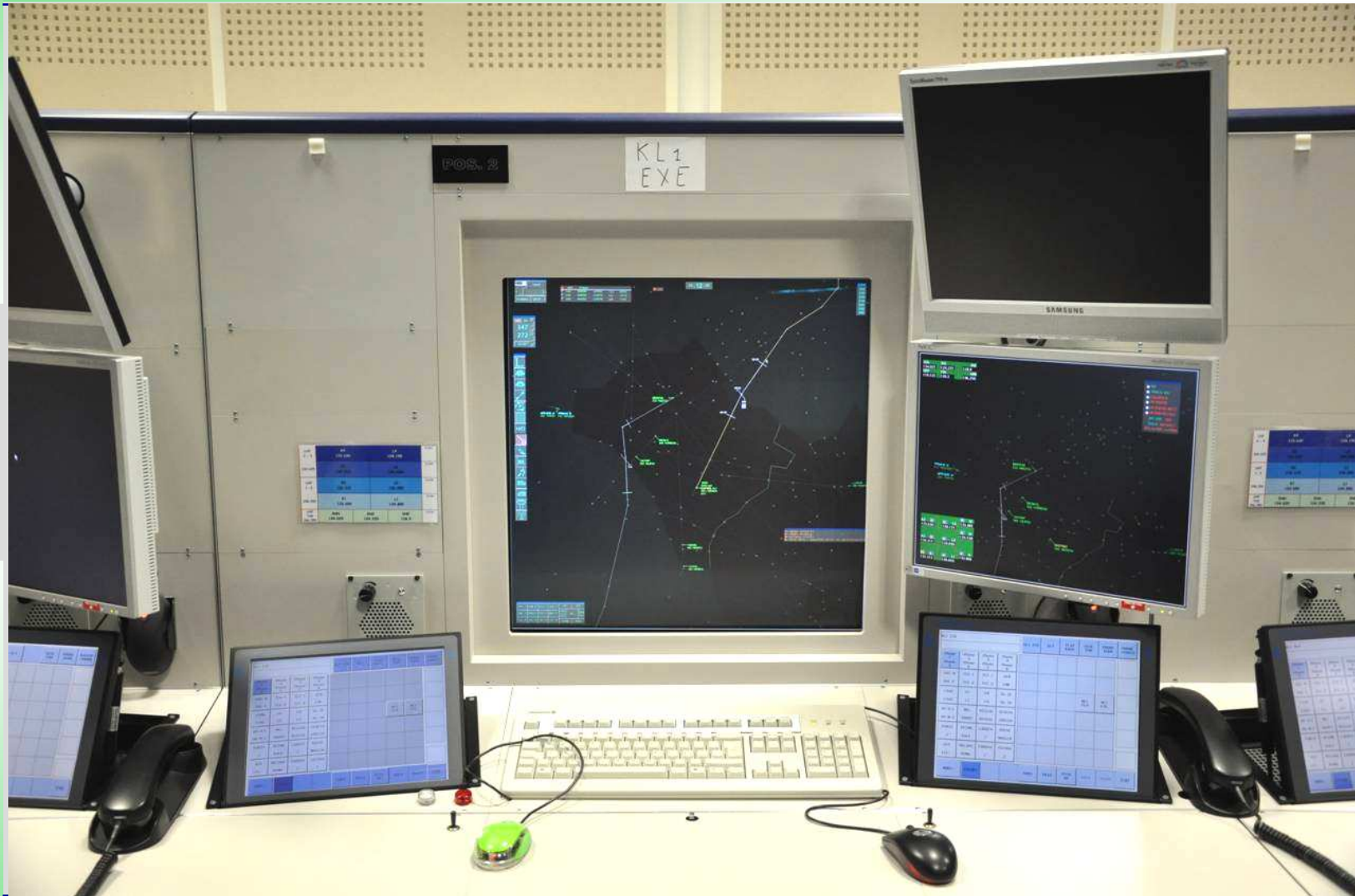
# Experimental environment



Measured Sectors			
ACC	Sector	Min FL	Max FL
LSAG	LSAGKL1	FL275	FL345
LIRR	LIRRM1	FL275	FL345



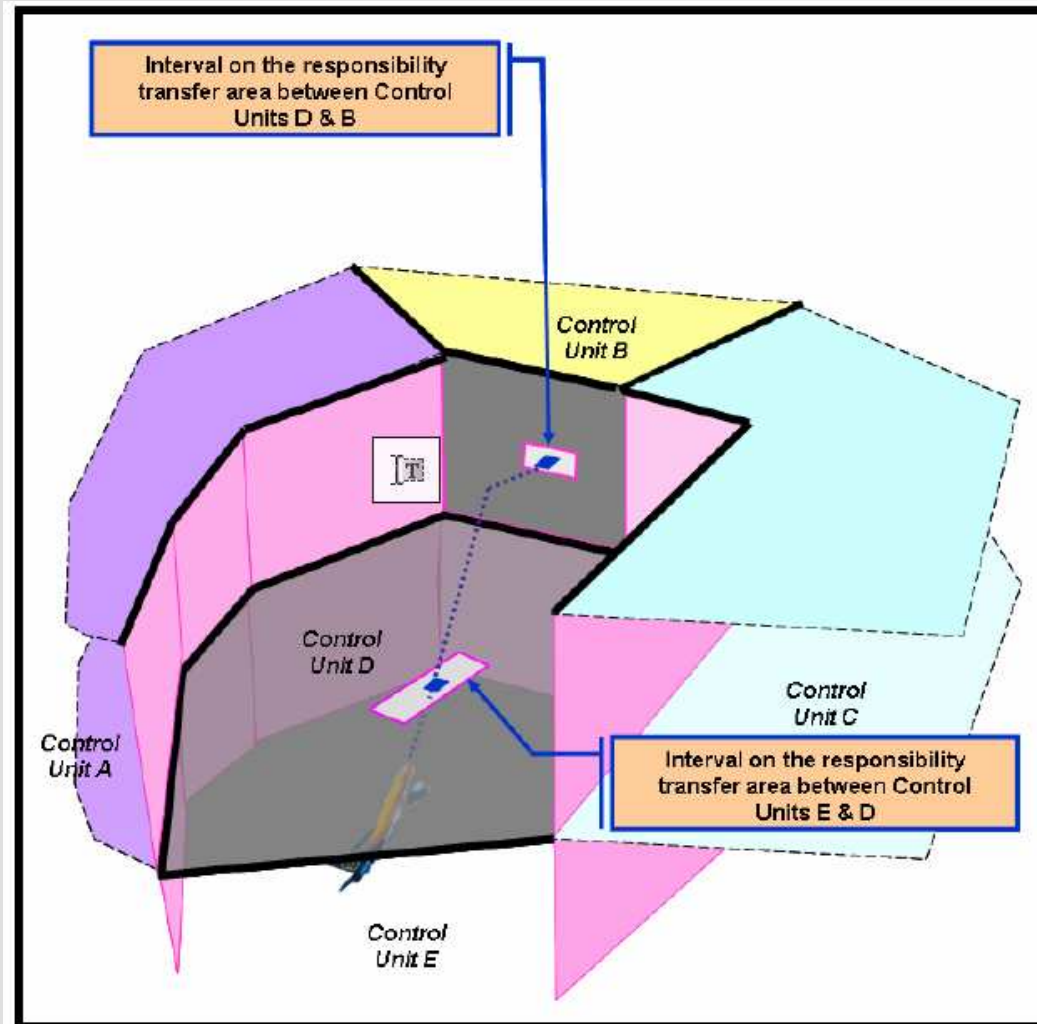
# ATCO CWP



Directorate-General  
for Energy  
and Transport



# TW : Adjacent and Superimposed



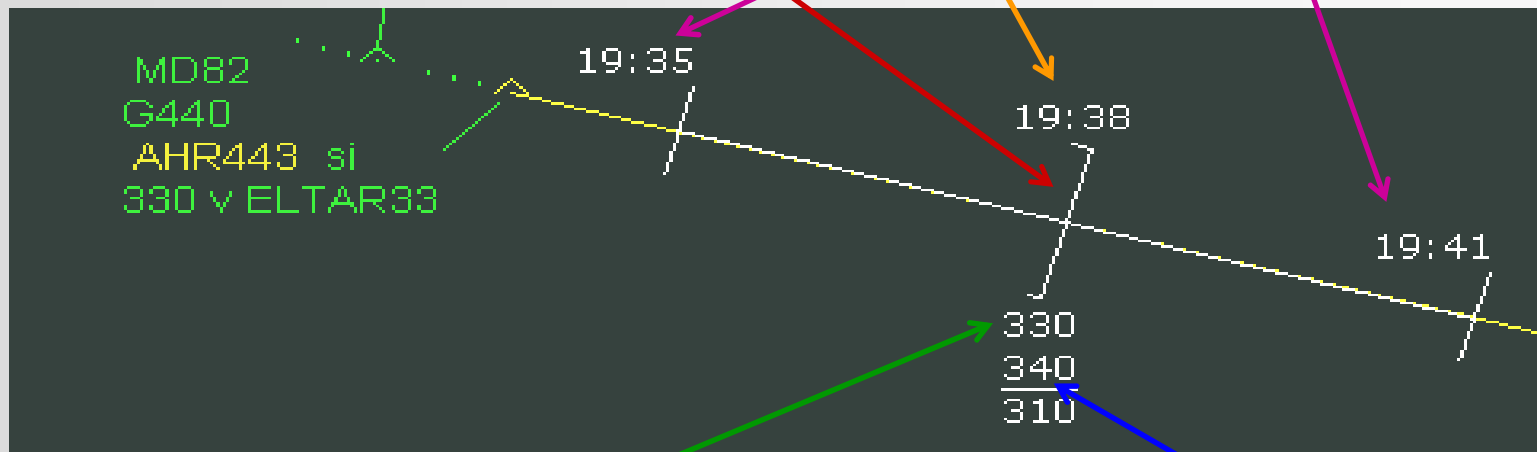
# HMI

## ■ Adjacent TW

**Geographical position**

**Effective Time**

**Time min/max**



**Preferred FL**

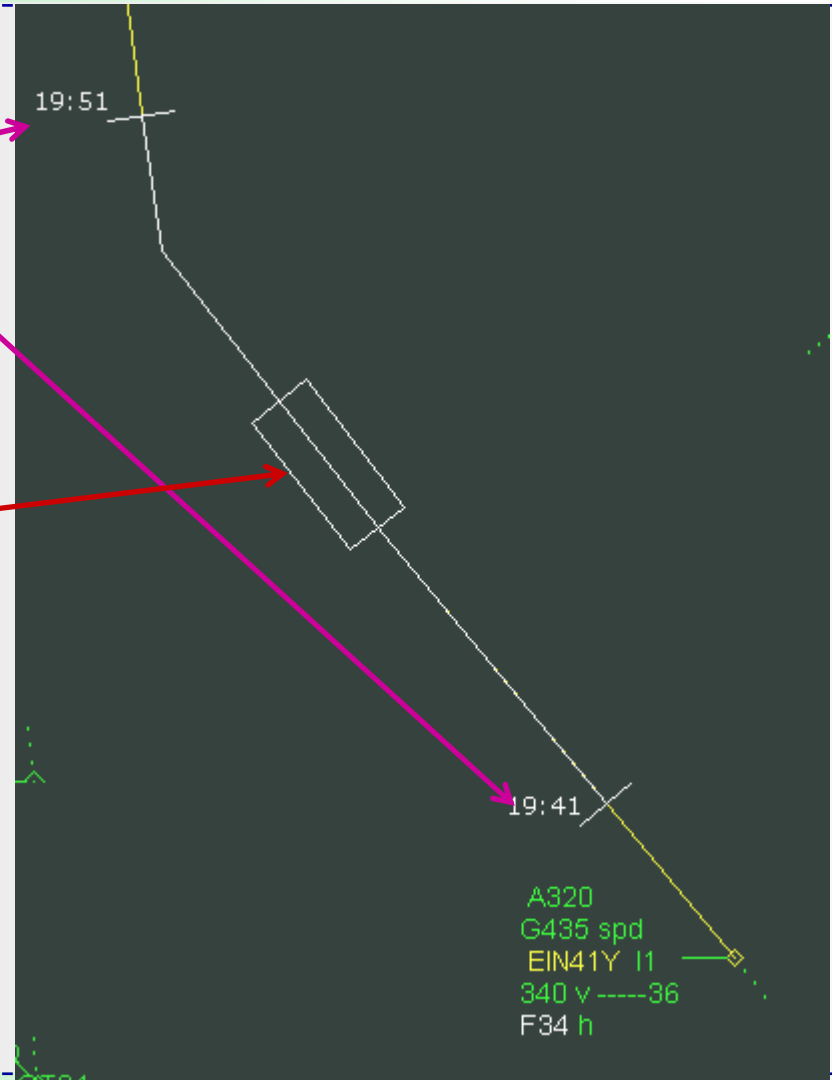
**FL min/max**

# HMI

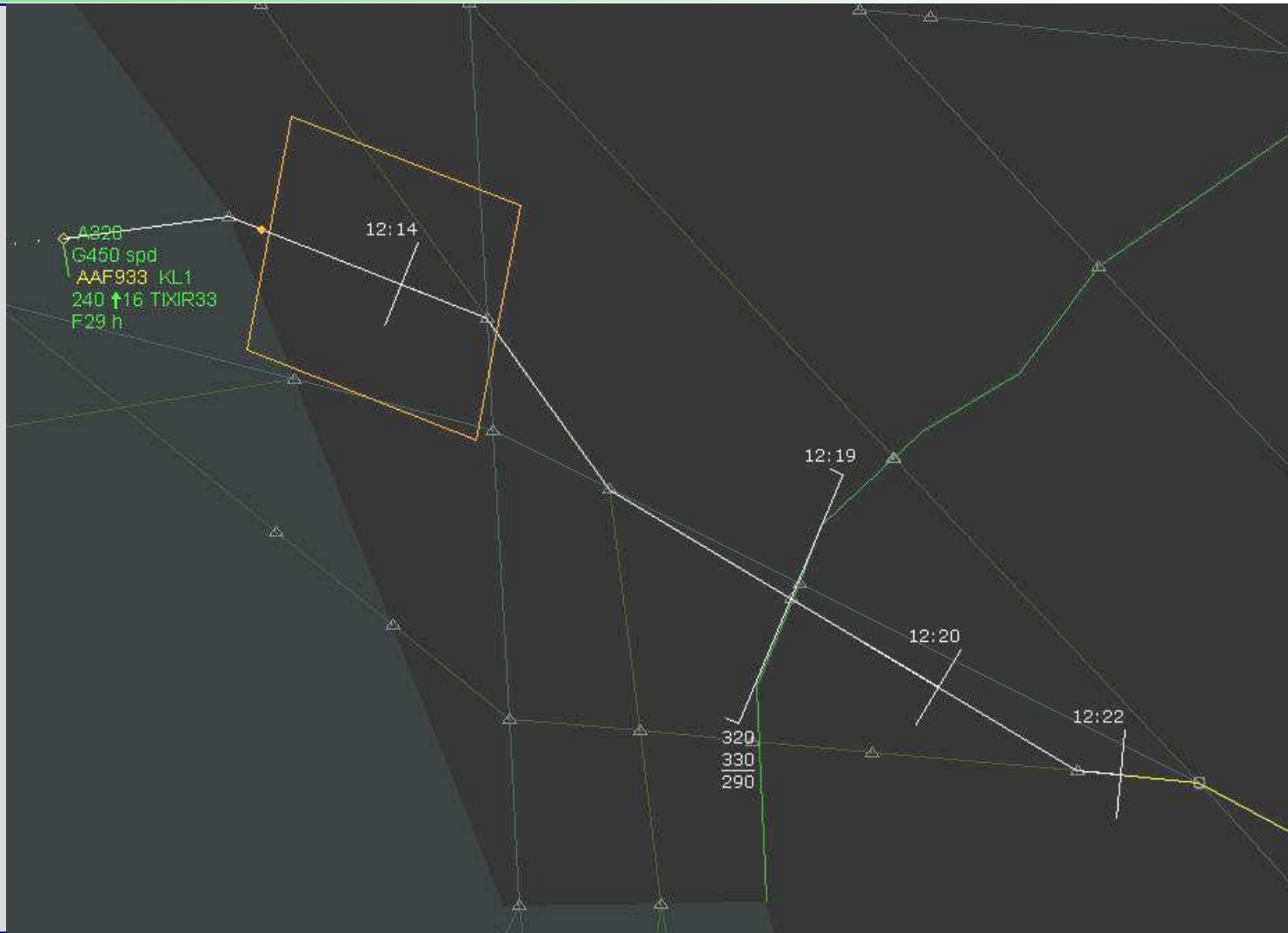
- Superimposed TW

Time min/max to cross TW

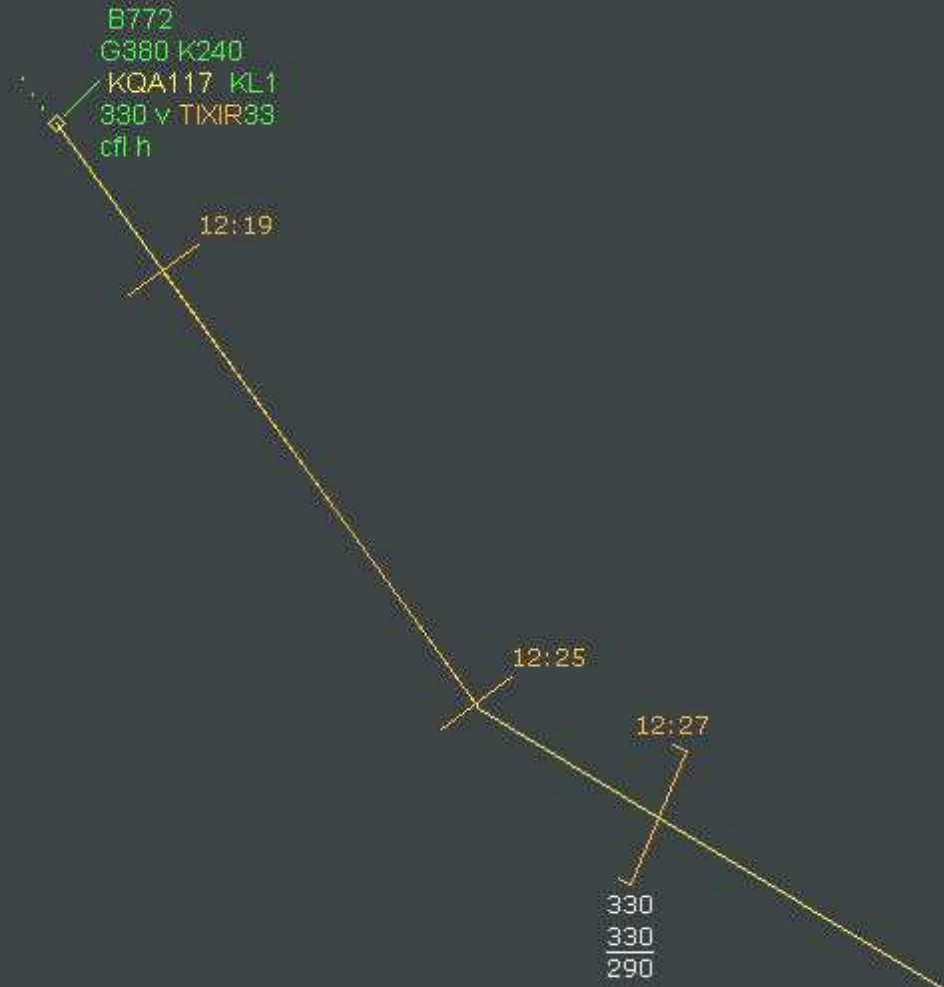
TW geographical position



# Flight path with 2 TW



# Adjacent TW : too late



# Adjacent TW : Missed geo



# Pseudo-pilot automation

- 2 flights/simulation piloted with the Crew (with voice)
- Other aircrafts with pseudo pilot automation
- Clearance (stripless) are executed with a random delay
- Datalink simulation with acknowledgement random delay



# Pilot HMI

- A new actor in the simulation
- Use of flight simulator with FMS and ND modified
- Flight sim pilot and ATCO will use voice



# Pilot HMI

- FMS automatically load exercise route and constraints
- ND shows TW and time slides
- Wind is indicated and dispatched in ATC



# Organisation of the demonstration



- 2 sectors with 2 ATCOS (one per sector)
- 1 pilot
- => 3 groups
  - One person from CATS behind each position
  
- Phase 1: we will run an exercise
  - Additional information provided by CATS representatives
  - Ask questions !
- Phase 2: Questions general discussions