



2018
World ATM Congress

SESAR
walking
tours



#PoweredBySESAR

Stand 890

Flight-Centric ATC

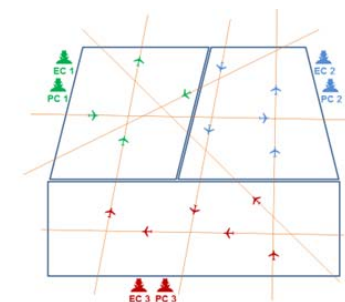


Conventional

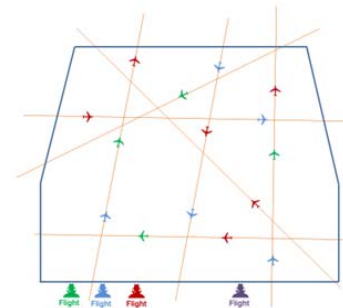


Flight-Centric ATC

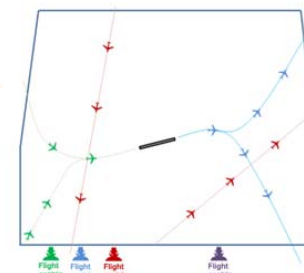
Allocation
Strategies:



Operating method with sectorisation



Flight centric ATC, example workload based traffic assignment



Flight centric ATC, example flow based traffic assignment

Expected Benefits



Human Performance

Fuel Efficiency

Cost Efficiency

Flexibility

Predictability



2018 World ATM Congress



Key R&D Needs



Allocation Strategies

Conflict Management

Radar Display Adaption
Traffic Filtering

Wide-Area Communication

Roles & Responsibilities
Tasks Allocation



2018 World ATM Congress



Partners



Prague Exercise



Air Navigation Services
of the Czech Republic



indra

Madrid Exercise

ENAIRe

THALES

Hamburg Exercise



DFS Deutsche Flugsicherung

Budapest Exercise



DLR



HungaroControl

FREQUENTIS

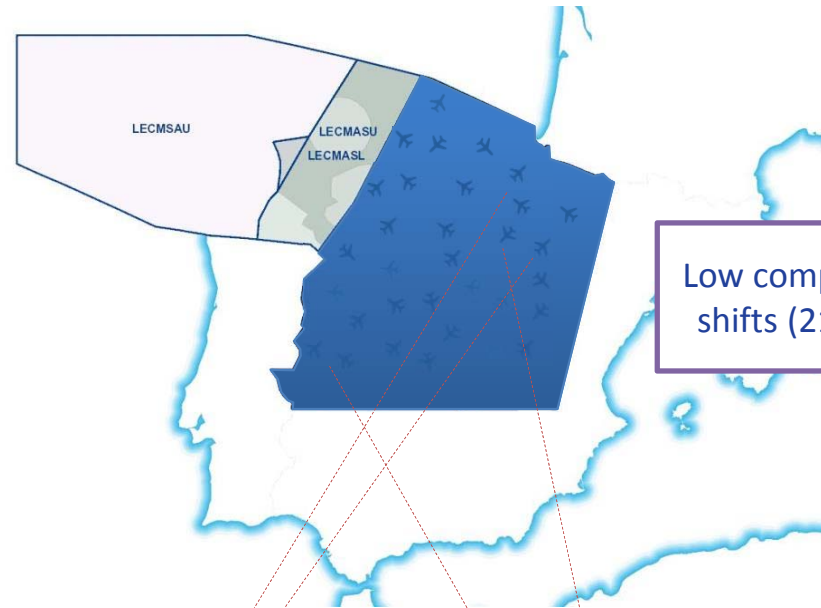


2018 World ATM Congress



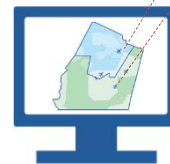
Madrid Exercise

- Feasibility of the OPS room configuration with Allocator and Flight-Centric planners.
- Algorithms for the flights assignment criteria.
- Coordination with adjacent conventional control areas.
- Executive and planner controllers' HMI and supporting tools.



PJ
PROSA

Low complexity in night shifts (21:00 – 6:00 h)



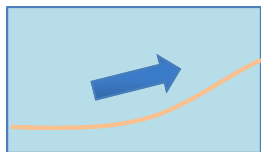
2018 World ATM Congress



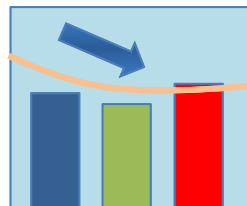
Prague Exercise



- Different allocation strategies:
basic, complexity based,
conflict based
- Dynamic airspace configuration



Flight Efficiency



ATCO Workload



Capacity



2018 World ATM Congress

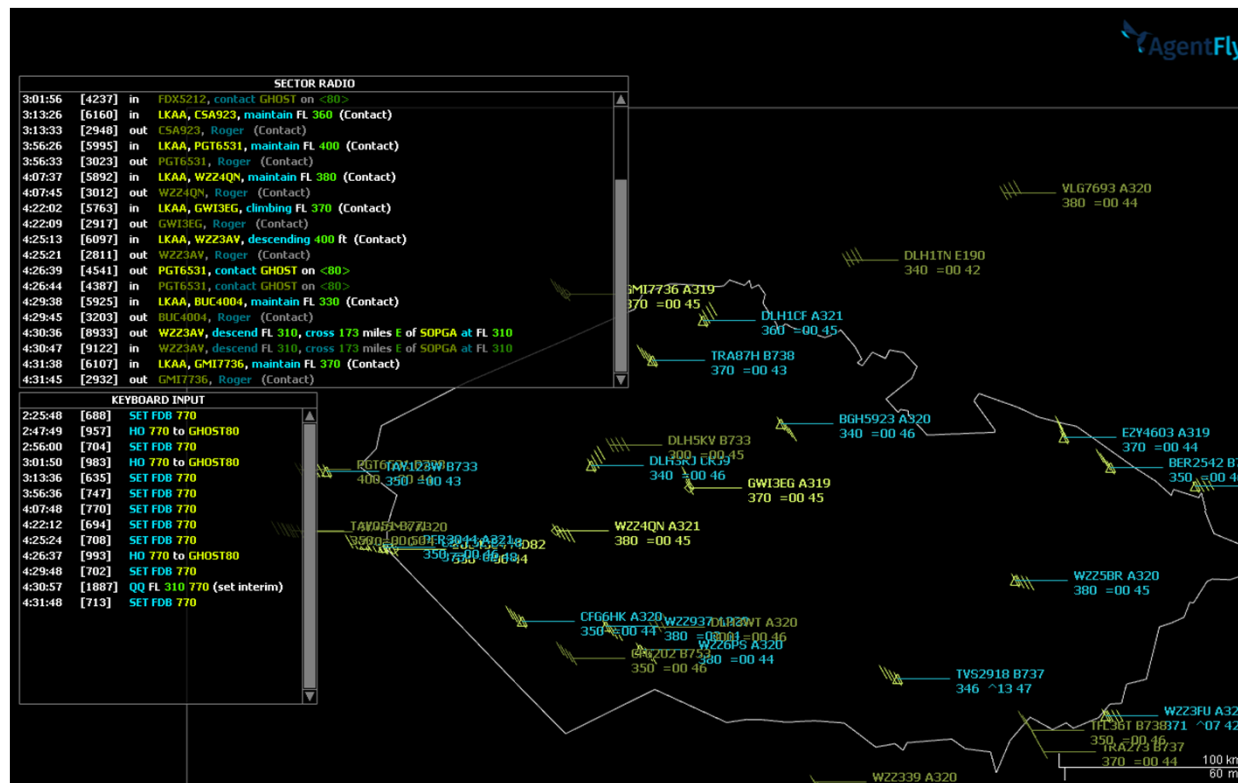


Prague Exercise



ATCO1

ATCO2



2018 World ATM Congress



Budapest Exercise



- Dynamic Traffic Allocation based on
 - Number of A/C
 - Number of Conflicts
 - Vertical Movements
- Enhanced Conflict Detection Tool
 - Conflict Resolution Advisories
 - Priority Rules reducing need for coordination
- Wide Area Communication Prototype in Real-Time Simulation



2018 World ATM Congress



PJ
PROSA

