

# CASE STUDY

## Module 7

European Airspace Concept Workshops  
for PBN Implementation

# Introduction

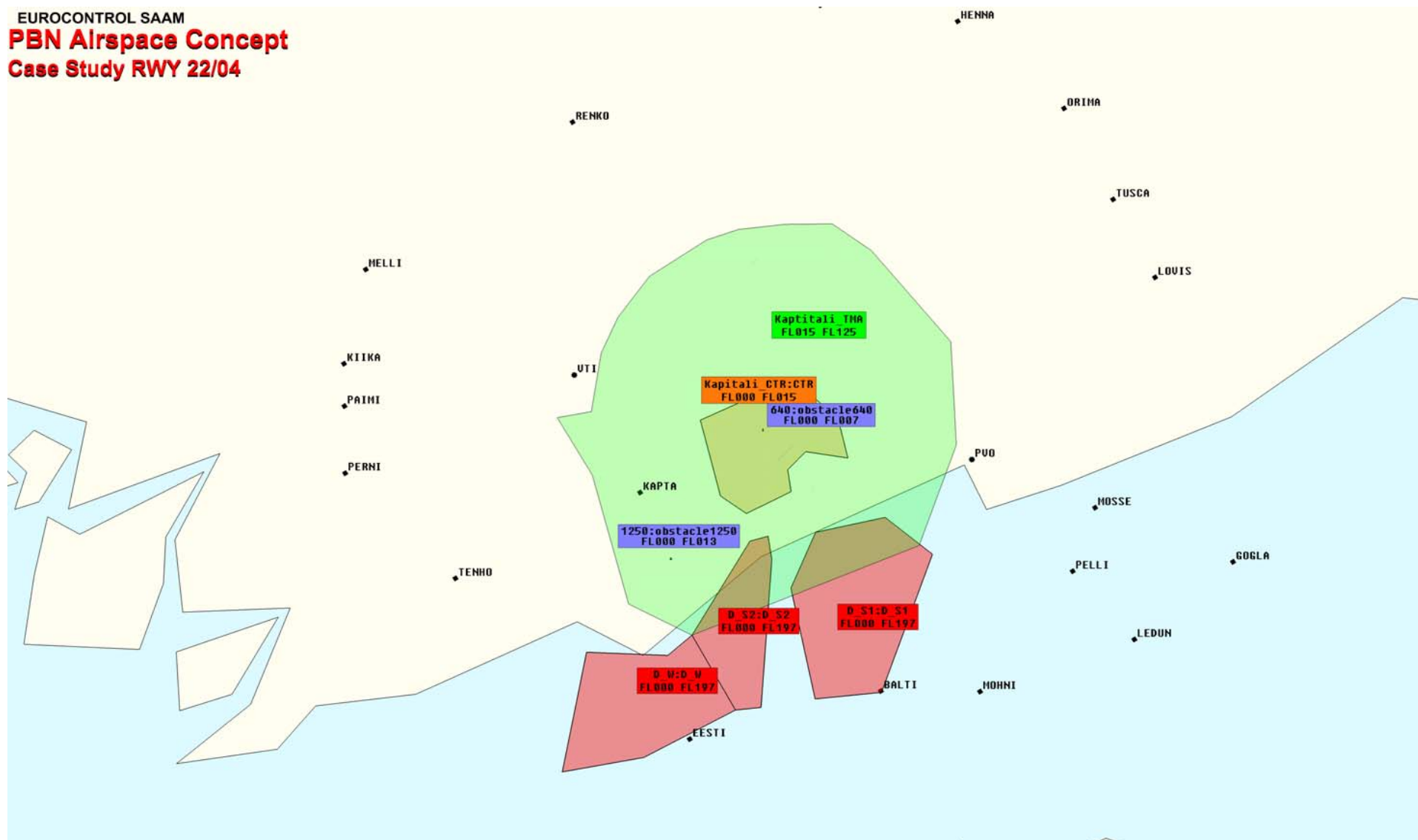


This module will provide data regarding a non-existing TMA. It is a generic high level overview, which will provide a basis for understanding the present TMA operations.



# Kapitali TMA

EUROCONTROL SAAM  
**PBN Airspace Concept**  
**Case Study RWY 22/04**

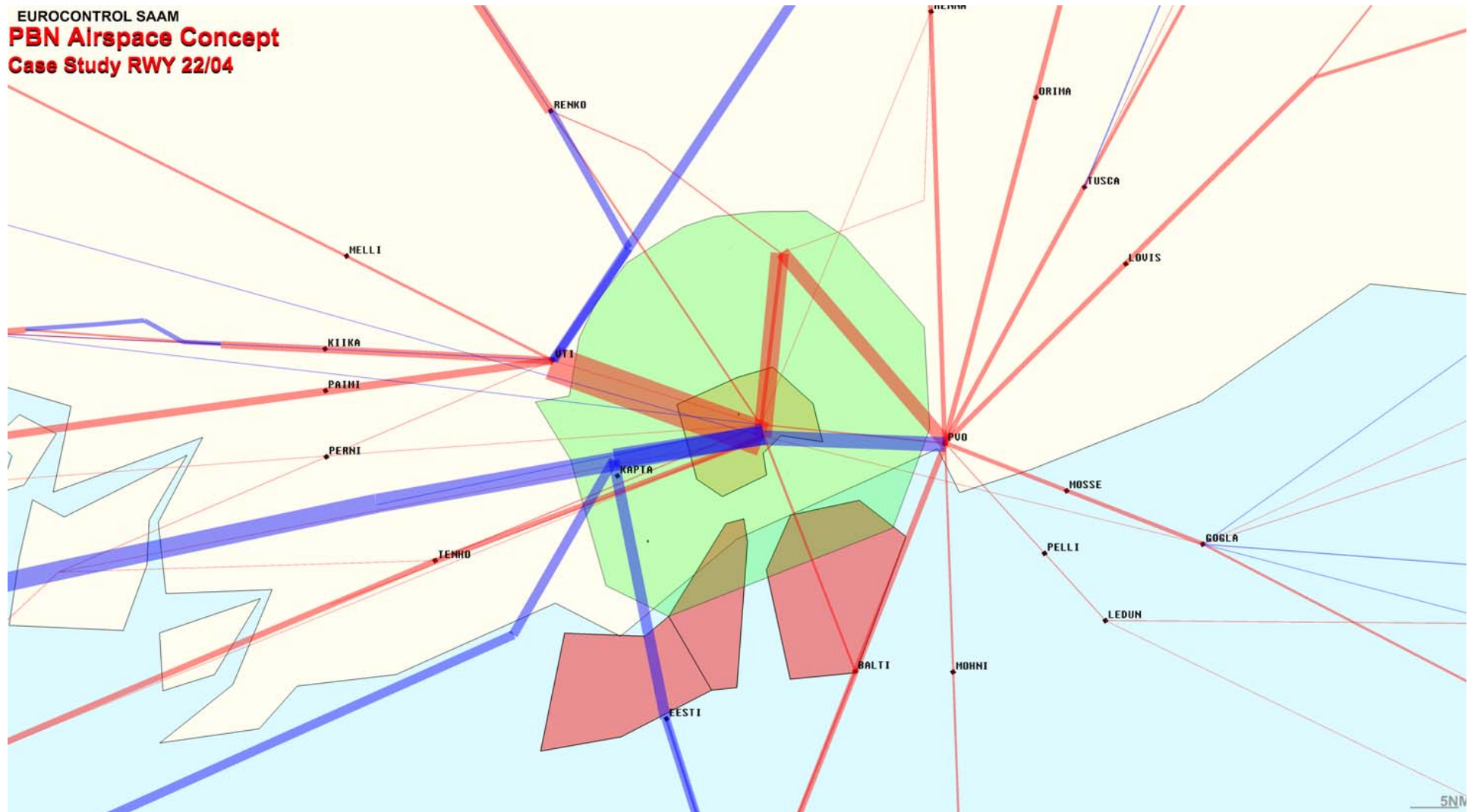


# Issues

- RWY 04/22
- Mostly RV
- Environmental constraints
  - 2200
- Request for night flights
- Capacity limits
- Operator wants more efficient ATM

# Flight Planning

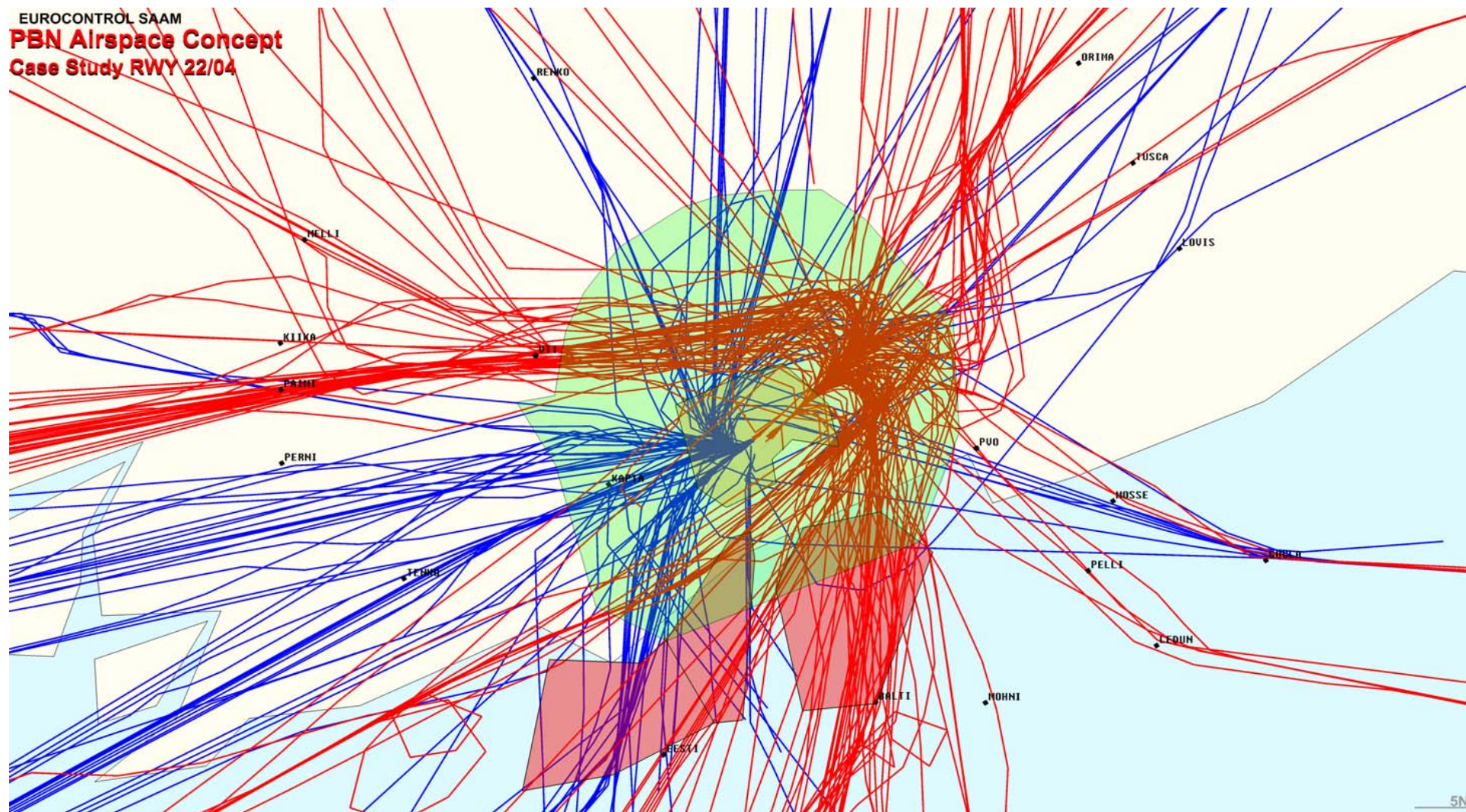
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# RV Patterns

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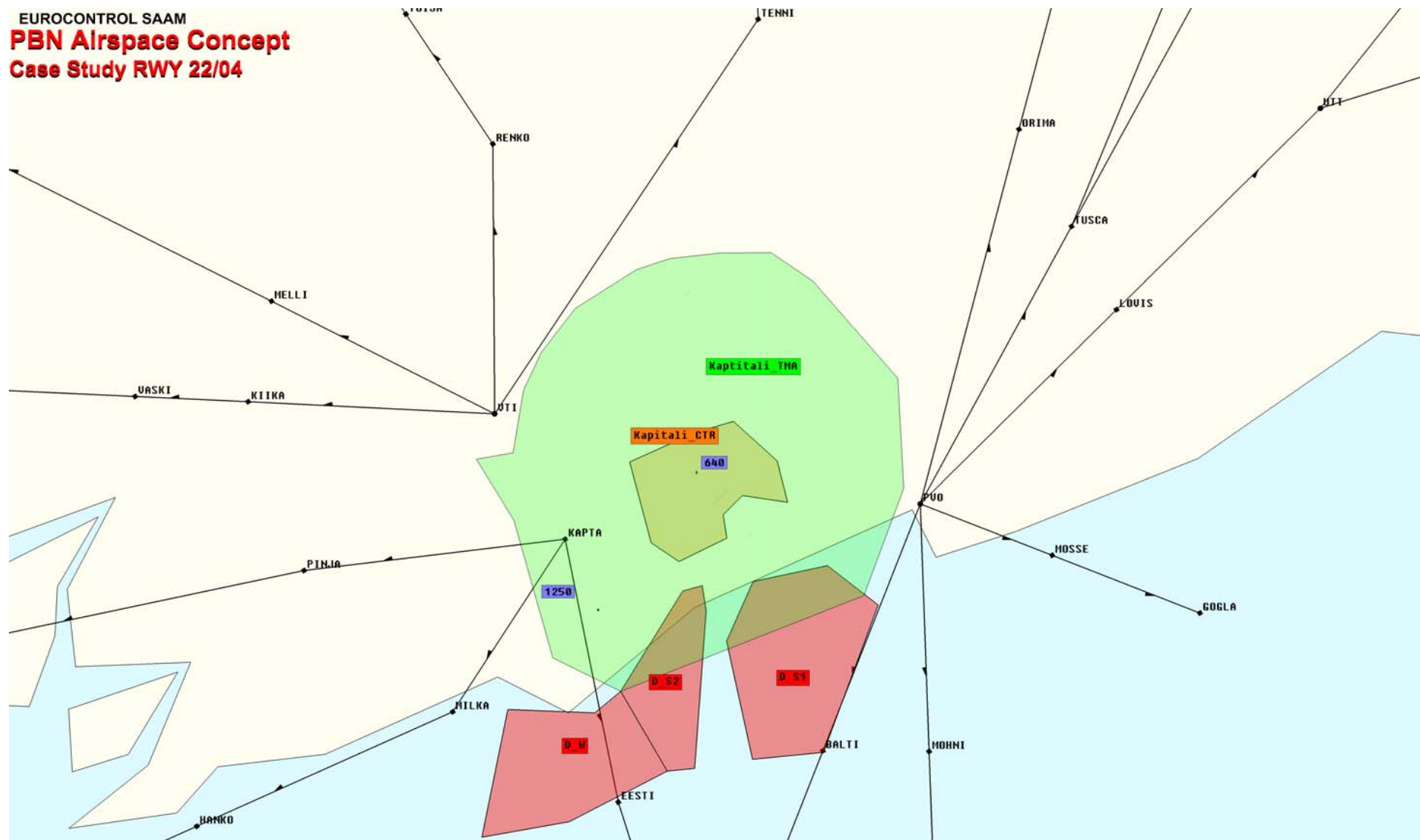


# SAAM View

- [PBN CaseStudy CPR.avi](#)

# Departure Routes

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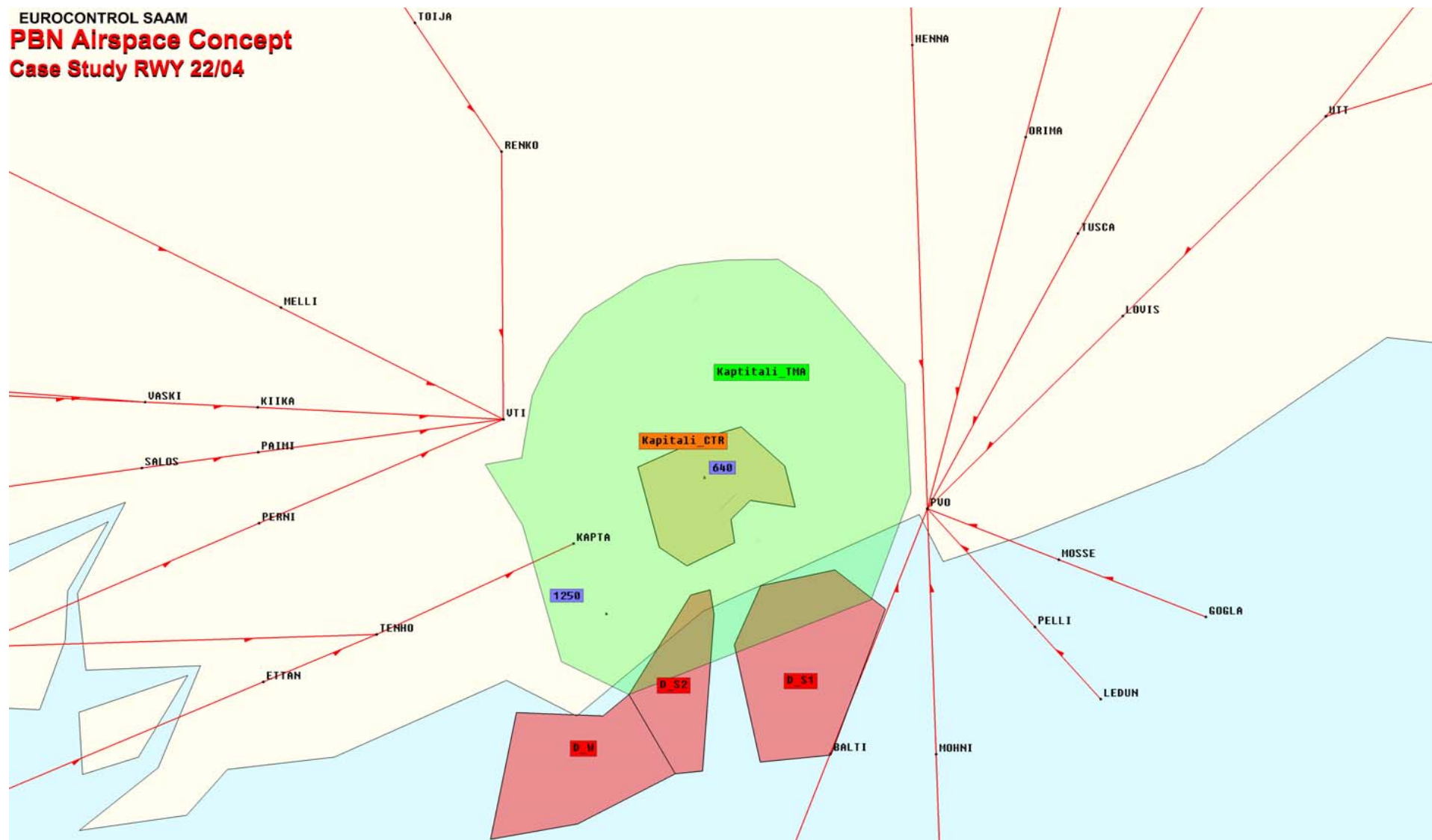






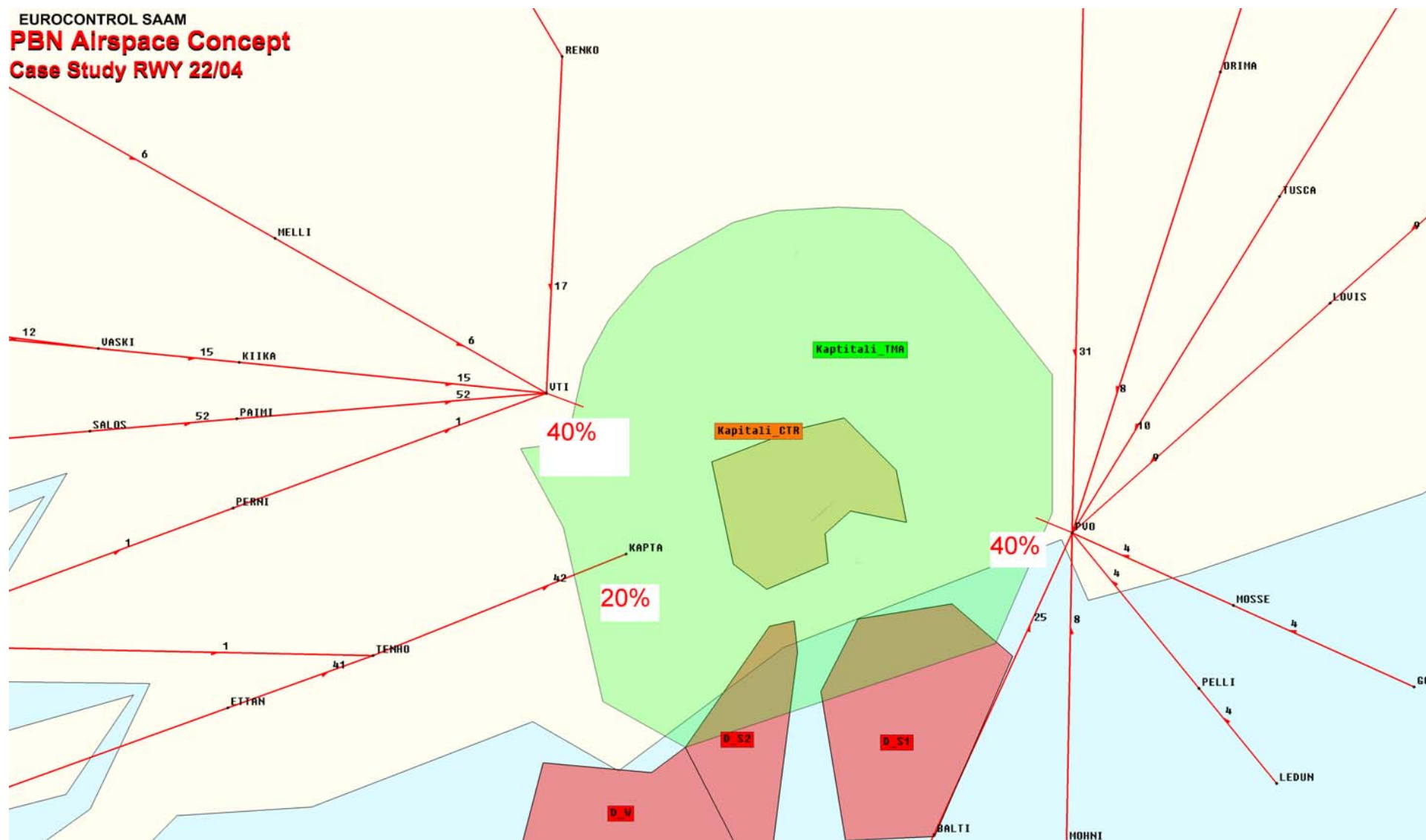
# Arrival routes

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# Arrival Distribution

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# ATM

- Functional Sectorisation
- Holds reactively activated
- **NO** use of SID and STAR
- High workload
- VFR ops
- TSA Mil

# Traffic

- 75% GPS/DME equipped
- 95% DME
- **ALL** RNAV-5 approved
- 65% RNAV-1 approved
- 25% Retro-fittable
- 10% too old



# Airspace

- Airspace classification C (inside and outside TMA as from 1500ft below uncontrolled)
- Airspace restrictions:
  - TSA: GND to FL 200
- Holding Areas on map
- MSA is 2500 ft
- TL 50
- MRVA is published 3000 ft

# Air Traffic Management

- Arrival and Departures vectored
- No transit traffic
- Military VFR to TSA outside CTR
- VFR has no impact on TMA ops
- HOLDS managed by APP but located in ACC

# Infrastructure and Technical

- Two radar (APP and feed from ACC) full coverage as from 2000ft update rate:
  - 10 per min
- Full RADAR and Flight plan data processing
- ILS both RWY ends CAT III
- Full DME coverage from 2000 ft over whole TMA
- NDB for NPA

# Meteo

- No serious impact on ATM and Low pressure has no impact as well
- Main use is RWY 22:
  - 80% of the time
- Moderate thunderstorm activity during summer, with normal disruption of traffic accommodated through flow control

# Environment

- Noise curfew after 2200
- Avoid city as much as possible
- Holding levels not below FL100
- CDAs are not implemented

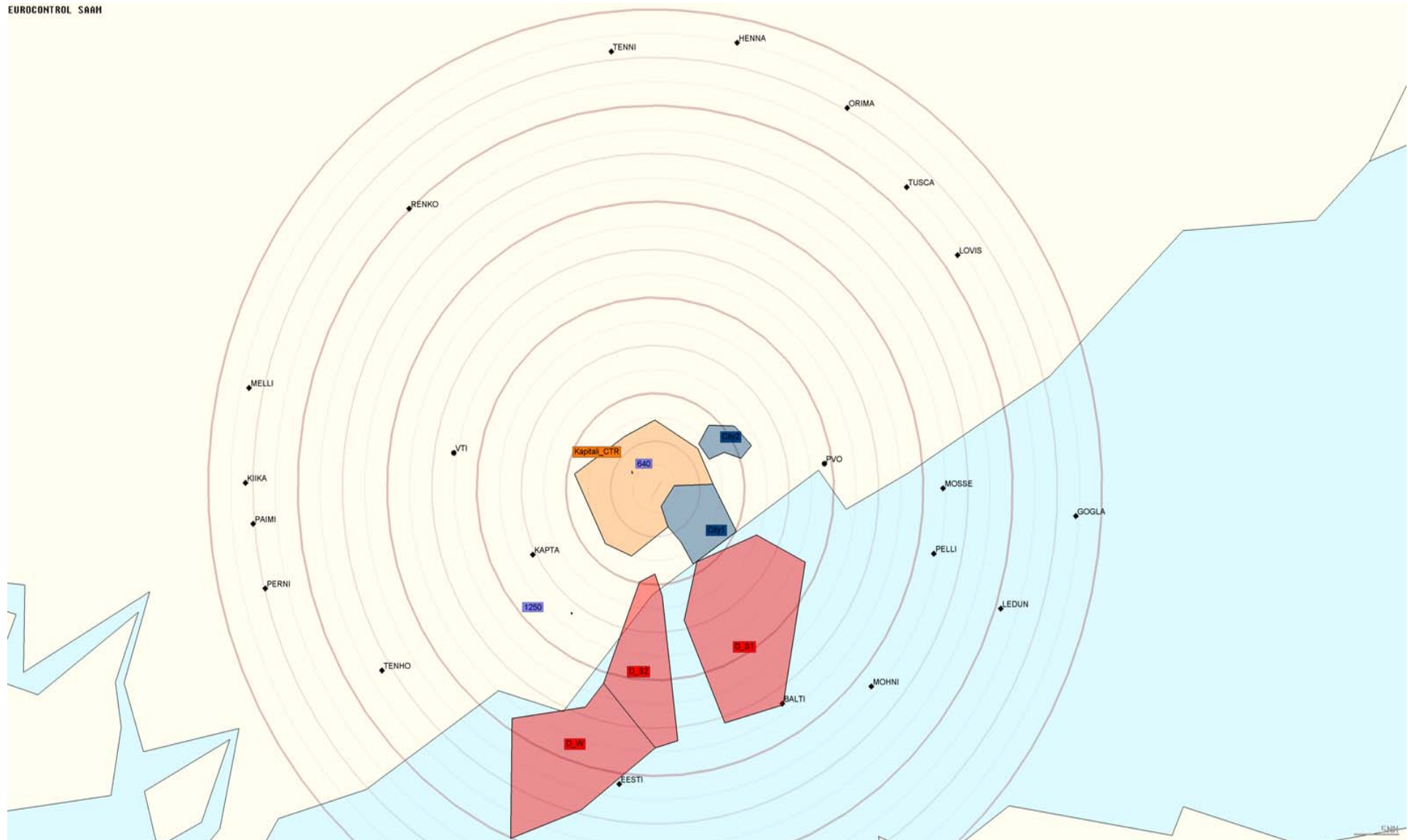


# TSA

- TSA is used for air-combat.
- Activated from 0800-2200.
- No formal agreement for the use of the TSA airspace outside actual Mil use.
- Occasional use is obtained through telephone coordination

# Current Kapitali Airspace

EUROCONTROL SAHM



代價組別 9

# QUESTIONS?