"RPAS potential for European border surveillance"

Land and maritime surveillance, border patrol

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Research and Development Unit

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Frontex

- EU agency
- Independant legal body with management board of MS 'border chiefs'
- 298 staff and growing
- Operational in Warsaw since Oct. 05

Council Regulation (EC) 2007/2004/ (26.10.2004, OJ L 349/25.11.2004)

Amended by the Regulation (EU) No 1168/2011 of the European Parliament and of the Council of 25 October 2011

Frontex mission

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”While considering that the responsibility for the control and surveillance of external borders lies with the Member States, the Agency shall **facilitate and render more effective the application of existing and future Community measures relating to the management of external borders**.***”***

“…contributing to an efficient, high and uniform level of control on persons and surveillance of the external borders…”

“ … the Agency may acquire***, itself or in co-ownership with a Member State,*** or lease technical equipment for external border control to be deployed during joint operations …”

Challenges for European border surveillance

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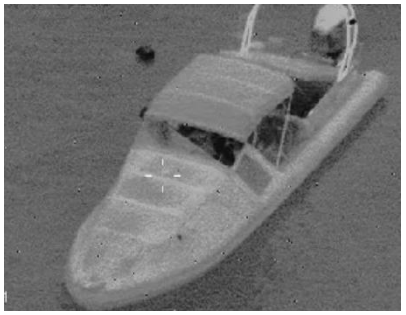

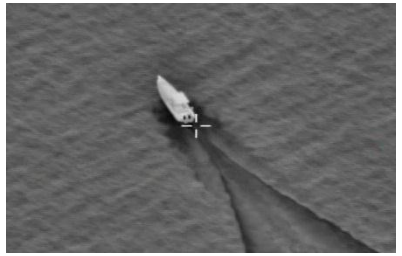

Challenges for European border surveillance

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- Platforms and sensors for the collection of data and information
- 24/7 all weather surveillance border and pre-frontier
- Platforms and sensors to facilitate interception
- Systems to exchange information
- Systems to exploit the information and react quickly to evolving threats

All the above: Affordable and Integrable

EUROSUR

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Examining the creation of a European Border Surveillance System (EUROSUR)

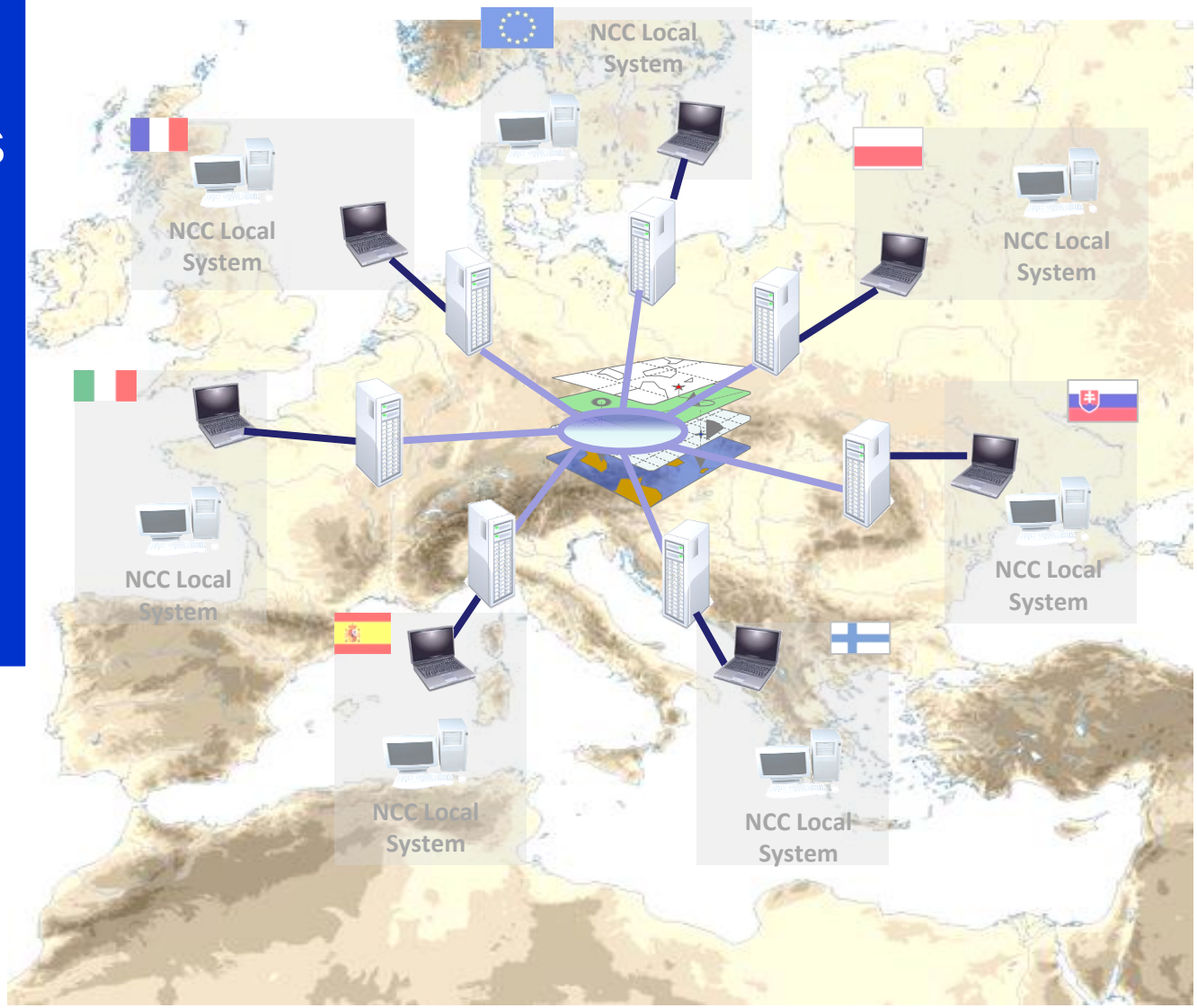
- Communication by Commission in February 2008
- Council conclusions in June 2008 and Stockholm Programme
- System of systems to provide situational awareness of border areas

EUROSUR - THE NETWORK PROJECT

Show information exchange between a limited number of 6 MS (2012 – 18MSs) and Frontex.

Facilitate exchange of what MS are able and willing to share.

Basic idea: gradual development of EUROSUR



EUROSUR

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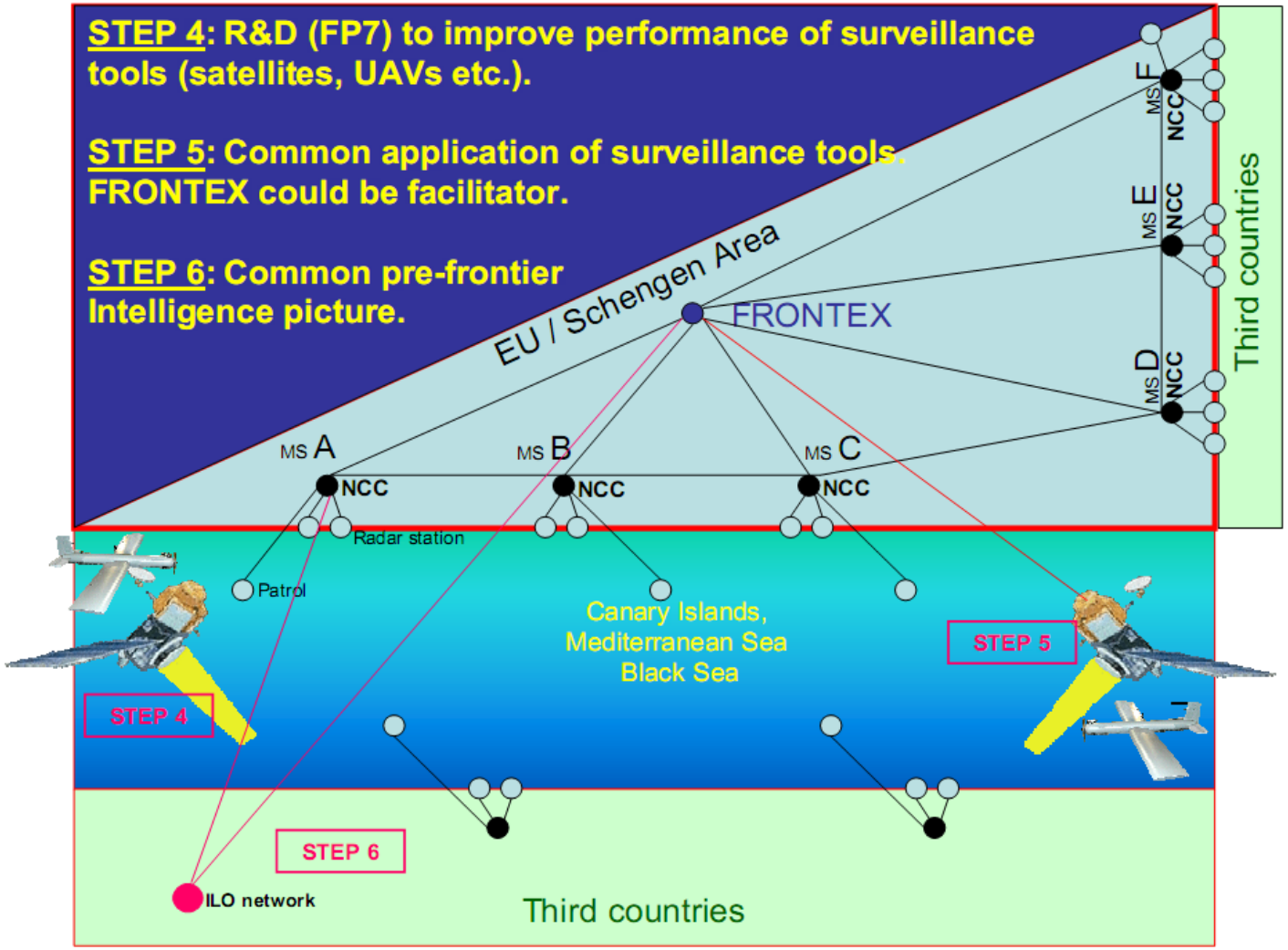

Satellites and RPA for border surveillance

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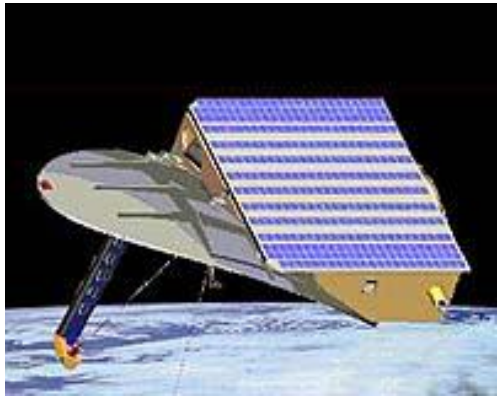
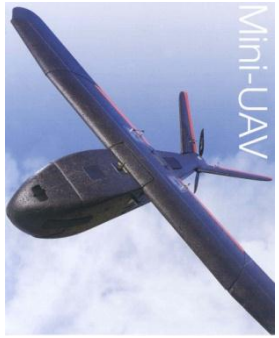
- Satellites with imaging radar (SAR) or optical sensors are useful for intelligence gathering, but not for real time tracking
- RPA have potential but must prove to be cost effective compared to manned flights



Demonstration of mini RPA and Aerostats

Workshops «RPA and Land Border Surveillance»
2009 & 2010 Imatra, Finland



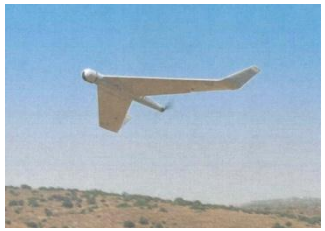
PATRIA ”MASS”
LIVE DEMO

SELEX ”ASIO” + HYDRA
”SENSORINTEGRATION”
LIVE DEMO

”LIVE VIDEO FROM MOBILE
TO MOBILE OVER IP”,
AHORTEC LTD LIVE DEMO

AERONAUTICS
SKYSTAR 180
Tactical aerostat
All weather conditions

SIM SKYEYE”+ QUATTRO
VIDEOTRANSMISSION
SYSTEM



RAFAEL ”ORBITER” LIVE DEMO
+ AERONAUTICS AEROSTAT SYSTEM, NOT
LIVE DEMO

Demonstration sessions Aktio and Istres 2011

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DA-42 with EO/IR

OPA

HERON 1

AKTIO, GREECE

PATROLLER

Istres, France

SpyLite

FULMAR

Demonstration session 2011

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RPAS – critical hurdles

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- Cost effectiveness
- Integration into normal airspace

Frontex activities in 2012

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- Maritime domain – operational assessment of Medium Altitude Long Endurance RPAS platform and sensors capabilities (cost effective compared to manned flights)
- Aerial border surveillance trails – optionally piloted aircraft
- 2012 Implementation of the Study on RPA for Border Surveillance – performance & efficiency - Isdefe,Spain

Conclusions

- Frontex works closely with the Commission and MSs in the development of EUROSUR
- RPAS could play a significant role in EUROSUR
- RPA have potential
  - Maritime surveillance
  - Long range and long endurance
  - Land
- RPA need to prove
  - Usefulness (legal / insertion into civil airspace)
  - Cost-effectiveness

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Thank you for your attention !