"RPAS potential for European border surveillance"
Land and maritime surveillance, border patrol

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


"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
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
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
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.
STEP 4: R&D (FP7) to improve performance of surveillance tools (satellites, UAVs etc.).

STEP 5: Common application of surveillance tools. FRONTEX could be facilitator.

STEP 6: Common pre-frontier intelligence picture.

EUROSUR

FRONTEX

EU / Schengen Area

Third countries

STEP 5

STEP 6

Third countries
Satellites and RPA for border surveillance

- 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
- SIM SKYEYE”+ QUATTRO VIDEOTRANSMISSION SYSTEM
- RAFAEL "ORBITER” LIVE DEMO + AERONAUTICS AEROSTAT SYSTEM, NOT LIVE DEMO

AERONAUTICS SKYSTAR 180 Tactical aerostat All weather conditions
Demonstration sessions Aktio and Istres 2011

HERON 1
AKTIO, GREECE
SpyLite

DA-42 with EO/IR

OPA

PATROLLER
Istres, France

FULMAR
• Cost effectiveness

• Integration into normal airspace
Frontex activities in 2012

- 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
Thank you for your attention !