



# RPAS ACTIVITIES IN EUROPE

LIFT 15 conference

Geneva

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04/02/2015

# WHAT IS THE STATE OF PLAY

- 10 countries have regulation (not harmonised)
- 9 countries are developing
  - 6 allow operations under strict conditions
- 2800+ civil approved commercial companies and growing
- Most operators and manufacturers have no aviation back ground
- Economic potential estimated at several billions before end 2020
- Pragmatic European approach.....

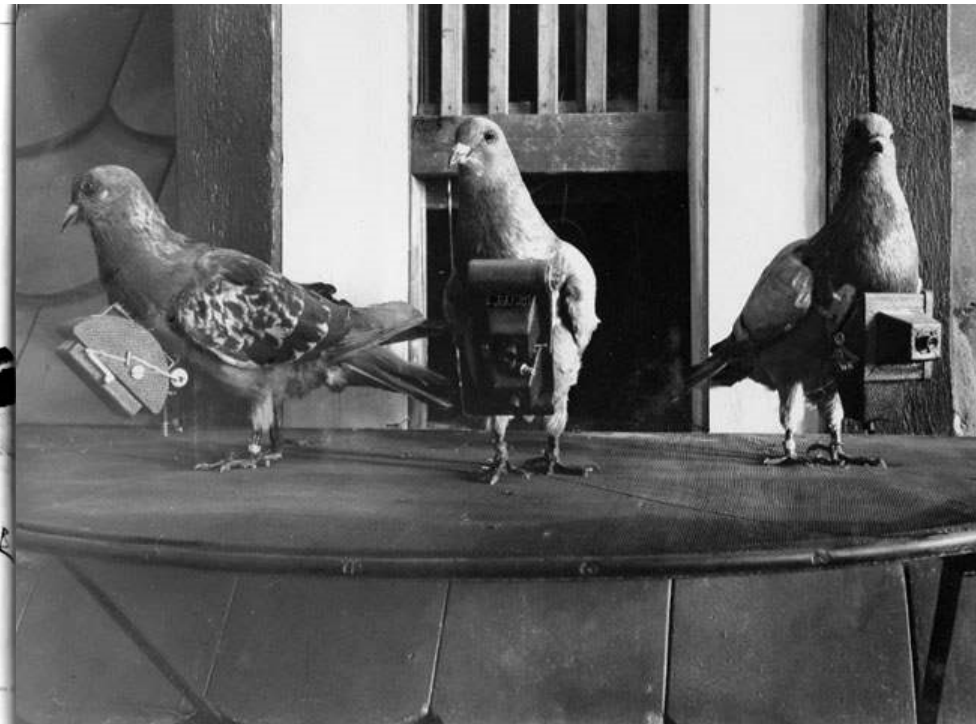
# COMPARISON Manned versus Unmanned

## ■ Manned world:

- Conservative
- Evolutionary
- Organised
- Safety culture

## ● Unmanned world:

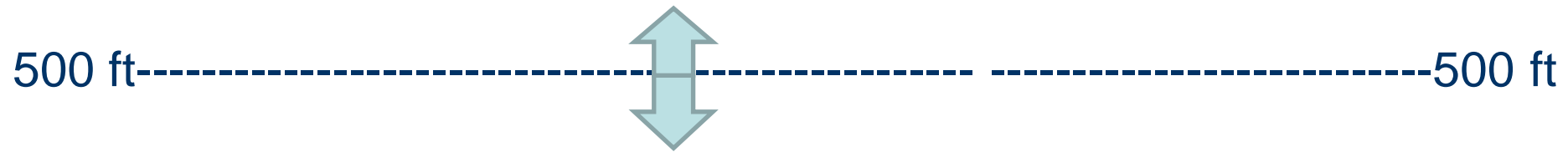
- Innovative
- Revolutionary
- Organised?
- Safety culture?



# TYPES OF OPERATIONS

Instrument Flight Rules (**IFR**)

Visual Flight Rules (**VFR**)



## **Very Low Level Operations**

- Visual Line of sight (**VLOS**)
- Extended- Visual line of sight (**E-VLOS**)
- Beyond visual line of sight (**B-VLOS**)

# WHAT is happening below 500ft?

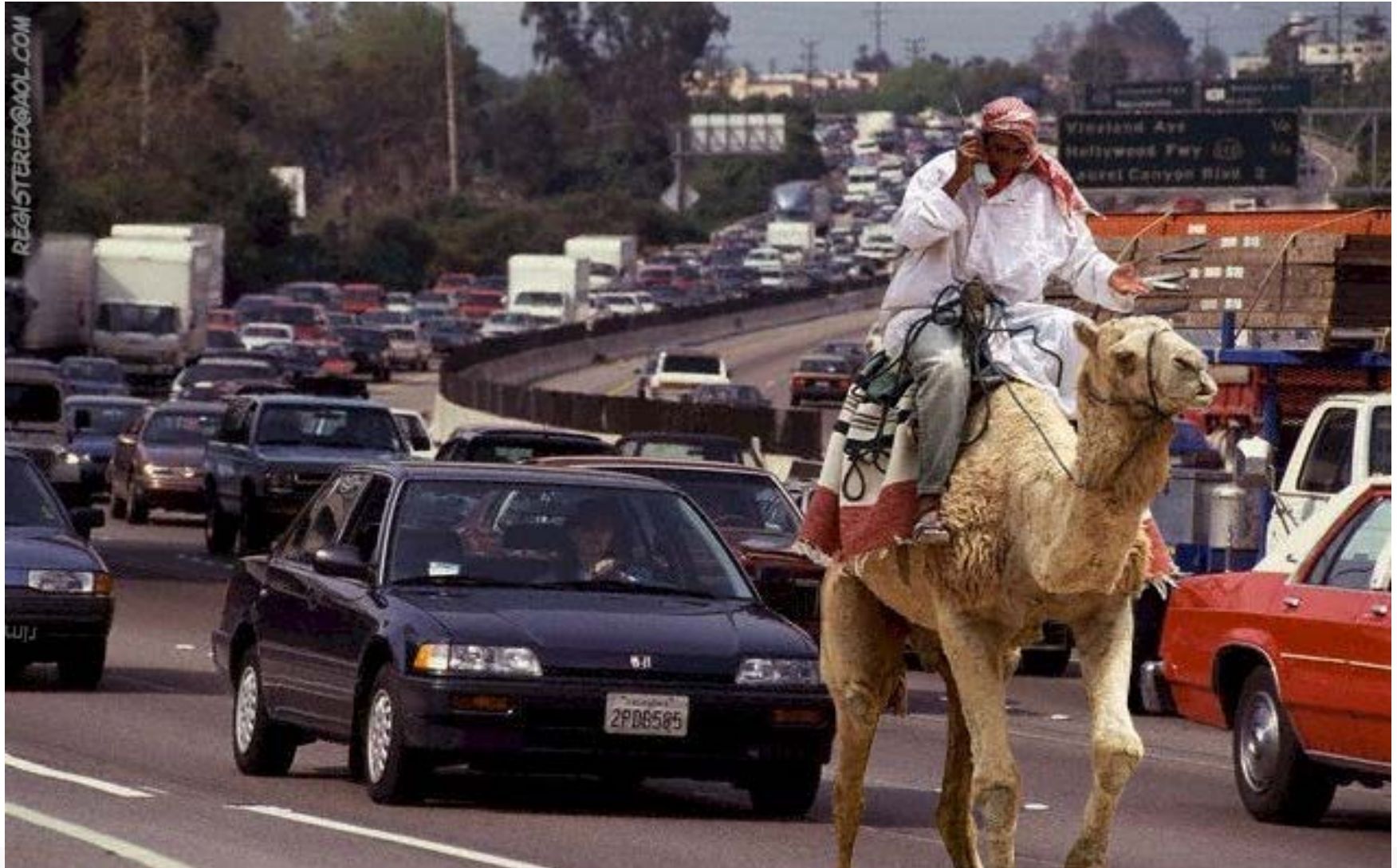
500ft aql



# WHAT ARE THE ISSUES?

- Safety perception
- See and avoid
- Lack of organisation
- Mix of airspace users
- NOTAMS
- New operators/airspace users

# INTEGRATION CHALLENGES (1)



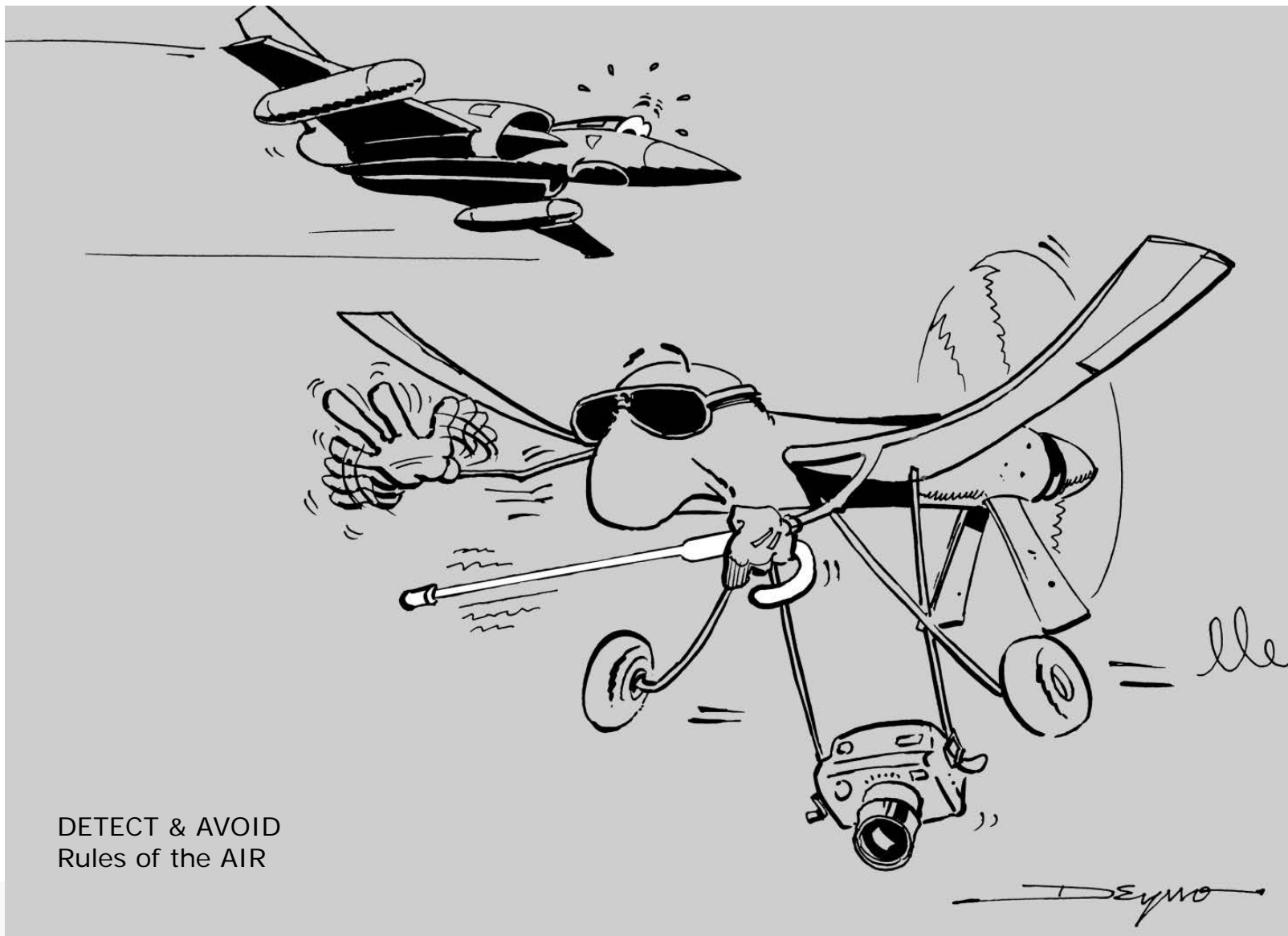
# INTEGRATION CHALLENGES (2)



- DATA LINK requirements
- SPECTRUM



# INTEGRATION CHALLENGES (3)



DETECT & AVOID  
Rules of the AIR

# WHAT OPTIONS DO WE HAVE?

- Co-orporative solutions?
- Airspace classification?
- Airspace assessments?
- Flight planning?
- RPAS NOTAMS?
- Web based applications?
- Self regulating airborne network?

# WORK TOGETHER!

- GA
- MIL
- EUROCONTROL
- RPAS COMMUNITY
- ESA
- ANSP
- REGULATORS



**WE NEED A HARMONISED AND  
SAFE APPROACH!**