

IMAV2017

International Micro Air Vehicle Conference and Flight Competition

Toulouse, France, September 18-22, 2017



Toulouse, France



Université
de Toulouse

Founded in 1229



- South West of France
- 850, 000 inhabitants

Toulouse, *European Aeronautics & Space Pole*



- **Aeronautics**: AIRBUS Group, ATR, SAFRAN, THALES, Liebherr Aerospace, Rockwell Collins, Latécoère, Air France
 - Manpower : 53,000, including 5,000 researchers
 - Leading European centre for civil aviation industry
- **Space** : ASTRIUM, THALES ALENIA SPACE, CNES
 - Manpower : 12,000 (25% of the European manpower)
 - Leading European centre for satellites industry and earth observation



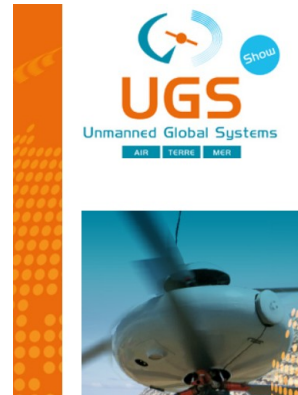
IMAV 2017

International Micro Aerial Vehicle Conference & Flight Competition

Toulouse, 18-22 Septembre 2017



- Organized by the **MAV Research Center**
 - Gathering several research institutes in Toulouse involved in UAV development and applications, including ISAE-Supaero and ENAC
- IMAV 2014 (Delft), IMAV 2015 (Aachen), IMAV 2016 (Beijing)
- IMAV 2017 & **UGS 2017** (UAV Convention)
 - Scientific Conference
 - Flight competition & UAV air show

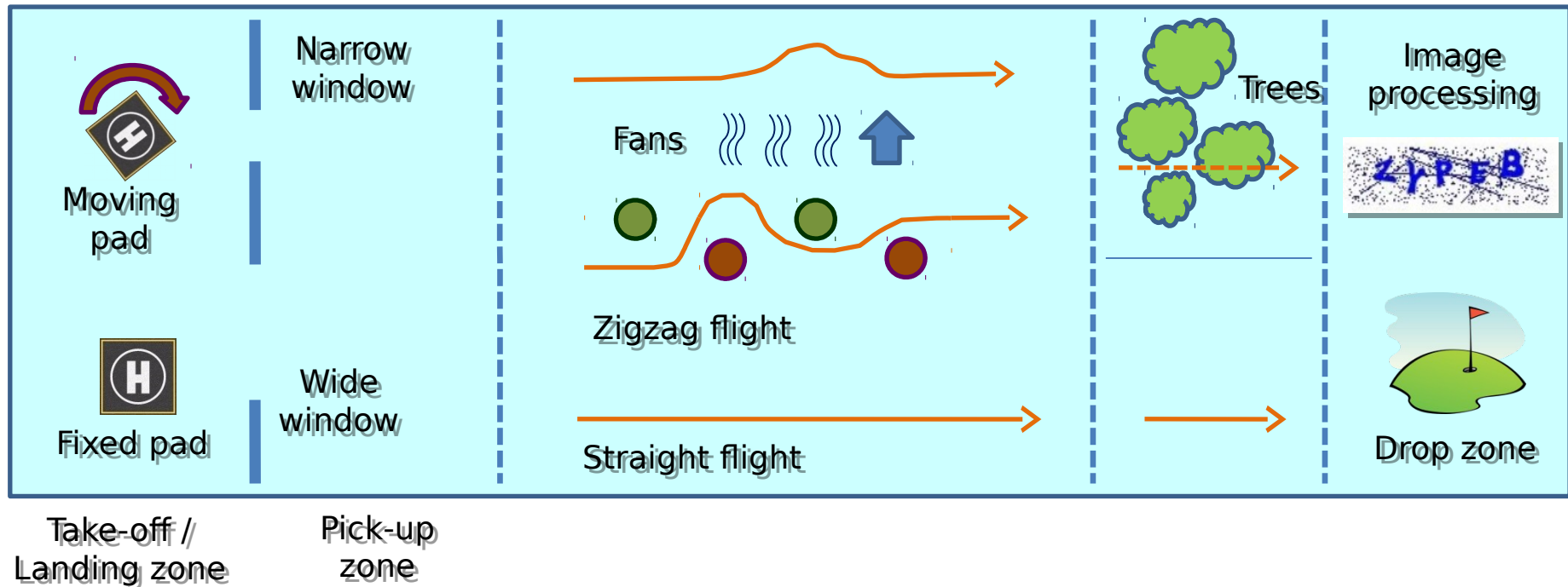


Competition rules

key points

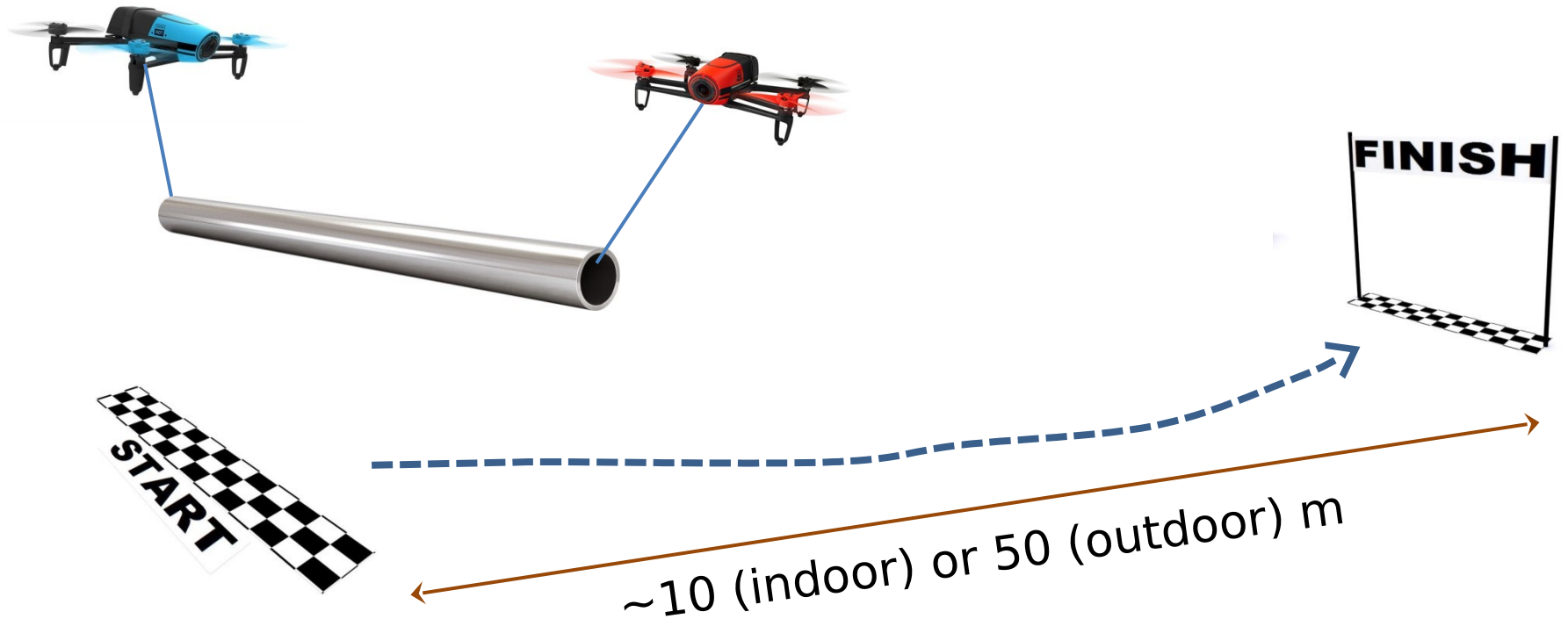
- Aircraft efficient and innovative designs
 - Small and light MAVs
 - Autonomy and image processing
 - Multi-UAV cooperation
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- 2 competition prizes
 - Several awards (design, autonomy, ...)

Indoor flight session



- Indoor session with outdoor features: wind, vegetation, building intrusion
- Drones for doing things: sensor dropping, image identification
- Autonomy: obstacle avoidance, multi-UAV collaboration

Indoor / Outdoor cooperative flight



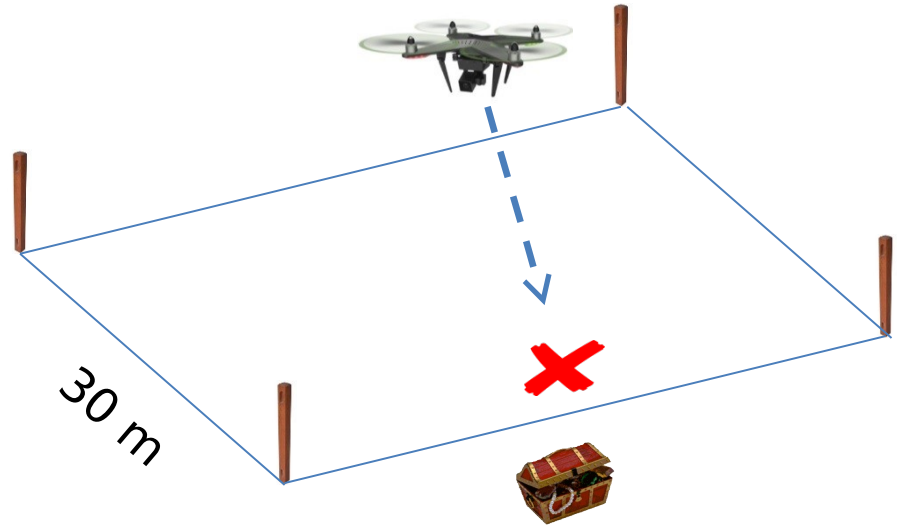
- At least 2 drones
- ... to carry a weight

Outdoor flight session

- Scanning of a hangar
 - outdoor / indoor
 - Locate hazardous elements / missing people
- Performance pole race
- Fixed-wing MAV or rotorcraft MAV

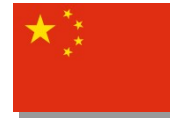


The treasure hunt challenge



- Buried metal mass
- To be located by a drone

Drone team parade trophy



- At least 3 airplanes
- Autonomous formation flight
- Synchronized fixed pattern in straight line

See you in France in 2017 !

