# Integrated UAV Threat Mitigation

# Eurostars CUPS

Detect
Assess
Share
Collaborate

Mitigate and limit the effects that UAVs may have on airport operations and save costs incurred by closure of airspaces and diversion of traffic. Rinicom and 42 Solutions offer you a multisensor system that is modular and fully integrated, serving all stakeholders, and offers you the speed to respond instantly, making your airport operations safe and resilient.

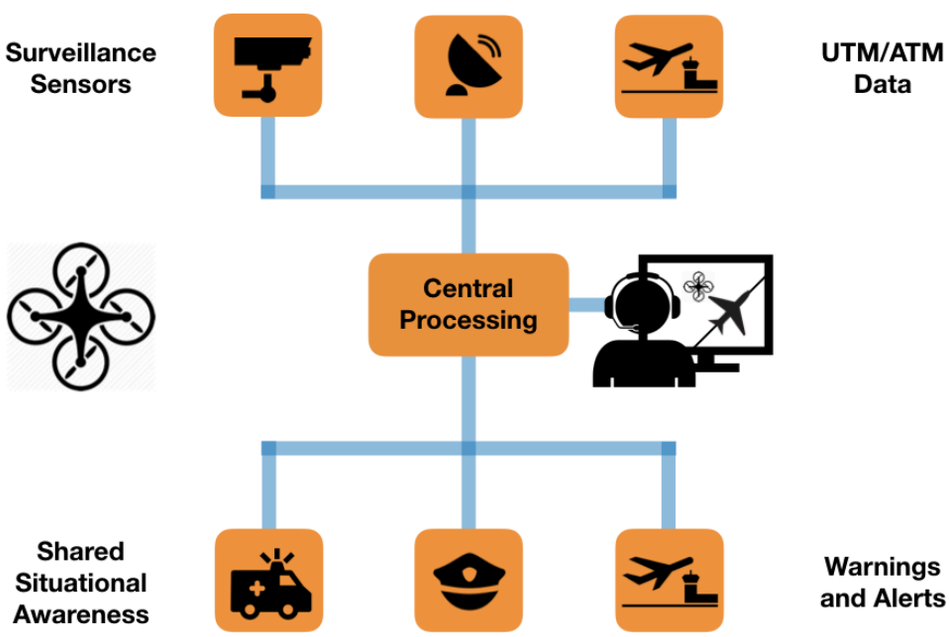
CUPS provides an advanced multi-sensor solution to detect the presence of UAVs, track them and identify them using Artificial Intelligence. The system assesses threats by incorporating UTM and ATC data and shares the situational awareness with all stakeholders including ATC, security forces and first responders. This swift alerting mechanism facilitates collaborative decision making, allowing every stakeholder to contribute.

# Detect, track and identify

The base system uses two types of sensors, Electro Optical and Radio Frequency, that are deployed for the detection of UAVs in the vicinity of the airport. The EO sensor is a combination of up to 12 passive HD sensors and one or more pan/tilt/zoom cameras. The AI-powered video analytics algorithm will detect, track, and classify UAVs. The algorithm can process multiple UAVs simultaneously and it uses an extensive library of UAV signatures to classify the UAV. Background objects such as birds and clouds are automatically filtered out to reduce the number of false alarms. The systems design is open to expansion with additional sensors.

# Assess Threat

Information about the UAVs trajectory and model is reported to a central unit. This information is used to build a situational picture that includes known ATC traffic and a view on published UTM information. Predefined critical airport and infrastructure zones, air traffic patterns and UTM data is used to assess if a detected UAV shall be considered a threat to the infrastructure or flight operations. If the UAV is deemed a threat, then the situational awareness is shared between stakeholders. Optionally the system records sensor and derived data for evidence gathering.




# Share Information

Sharing of information can be done in human controlled and automatic mode. The human controlled dissemination allows for the controlled, supervised injection of safety net messages into your ATC environment. This mechanism ensures that ATCOs are only informed if the threat is confirmed.
Automatic distribution facilitates sharing situational awareness with stakeholders, allowing them to assess and defuse the situation even before the threat to ATC becomes critical. The distribution includes threat information, classification, alerting and a shared view on the actual air traffic situation.

# Collaborate

The system offers an information feedback loop from responders to the system so that all stakeholders are in the loop. Responders can actively report on their progress and expedite resuming of flight operations. Above features offer you the speed to respond instantly, making your airport operations safe and resilient.
The system offers generic capabilities and conforms to EC IOP regulations. Additionally, we provide services for seamless integration in existing environments. Ask our sales team for the possibilities.

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