

FALKE

“Die Fähigkeit des Abfangens von in gesperrte Lufträume eindringenden Kleinfluggeräten durch zivile Einsatzmittel”

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Problem Definition

The Air Traffic is an important Connector for an internationally linked Society

- Disruptions, especially at junctions of closely clocked and interlinked air traffic nodes, have considerable worldwide effects.
- Unmanned Aerial System (UAS) intruding into control zones are increasingly endangering the operation of commercial airports.
- The endangerment of persons, aircrafts and other valuable equipment as well as the economic damage are considerable.

Currently, no comprehensive and integrated solution for intercepting “Unauthorized UAS” at airports is available on the market

Project Goal

Integrated Technical + Organizational System Concept Embedded into the Airport Process Flows and Systems

- developed and demonstrated exemplarily at the Hamburg Airport
 - starting with the detection of an “Unauthorized UAS”, accomplishing a highly automated dogfight and ending with a safe and automated UAS-removal
 - in compliance with all areas of responsibility
 - for the provision of automated and standardized concepts
 - with clearly defined process flows and interfaces
- Usable as „Blueprint“ for any Airport

Implementation

- Development of a coordinated action plan in the heterogeneous network of responsibilities at airports, including reporting chains and procedures.
- Definition, realization and standardization of data interfaces/data protocols in order to interlink different subsystems.
- Enhancement of an already available intercept drone by means of AI for an automated interception process (“Dog-Fight”) and an automated safe “take-away” of “Unauthorized UAS”.
- Characterization and verification of sensors and effectors for Counter-UAS intercept drones.

Expected Results:

With Airport, DFS and BPOL coordinated Process Chain for Standardization at European Level

