

Drone technology is on the rise. To fully support the rapidly growing drone industry, a harmonized approach for the integration of drones into Very Low Level (VLL) airspace is vital.

Gathering experts from aviation (manned and drone), research and academia, the CORUS consortium has developed and written a Concept of Operations (ConOps) for U-space, the European system for the management of drones. CORUS addresses VLL airspace, also including the airspace around airports.

Starting from the U-space blueprint and from the ATM Master Plan update, the project has produced a ConOps, a detailed definition of the services necessary for VLL drone operations over the next two years.

The services are defined in a way that shows how they can and should be used together to enable safe drone operations while balancing the needs of the drone sector with those of society as a whole. An initial architecture is also proposed.

The CORUS project has built consensus and drawn on information and experience already available. The project activity was centered on 3 workshops with a wide base of stakeholders, allowing CORUS to build, refine and validate its U-space concept of operations. The workshops were held in January 2018, June 2018 and April 2019, each attended by over a hundred participants. During the project life three iterations of the ConOps have been made and all together well over a thousand written comments were received on the drafts.

Comprehensive communication and dissemination activities have been implemented to ensure the widest possible outreach of the project outcomes throughout the project's life.



www.sesarju.eu/projects/corus



Concept of Operation
for European UTM Systems



Corus goals

01

Establish and clearly describe a concept of operations. Develop clear use cases for nominal scenarios and describe how losses of safety in non-nominal situations (for instance contingency, emergency ...) can be minimized.

02

Address drone operations in uncontrolled airspace as well as in and around controlled and/or protected airspace such as airfields.

03

Examine non-aviation aspects, identifying key issues for society (e.g. safety and privacy, noise ...) and offering solutions to ease social acceptance.

04

Develop a concept enabling safe interaction with all different classes of airspace users taking into account contingencies and emergencies, and making clear any assumptions about the volumes of traffic.

05

Identify necessary services and technical development, quantifying the level of safety and performance required and proposing an initial architecture description.



The CORUS project involves nine partner organizations; DFS, DLR, DSNA, ENAV, EUROCONTROL (leading), HEMA, NATS, Unifly and UPC. CORUS was guided by an Advisory Board of 21 members, and a growing 'U-space Community Network' of stakeholders. The project also communicates and cooperates with more than 70 organisations involved in other related projects looking at specific drone and U-space technologies.

The CORUS consortium recognizes that broad acceptance of the CORUS concept of operation is paramount. To this end, the project invited interested parties to join the "U-space Community Network". During the course of the project this community grew to over 500 members. These UCN members received information about the project advancement, provided input on a number of questions to guide the project work and have been invited to attend the workshops.

To download the ConOps or join the U-space Community Network, please visit our website www.sesarju.eu/projects/corus.

