HIGH LANDER

VEGA UTM

The future of air traffic control

Autonomous uncrewed traffic management software solution for management of UAS traffic at any scale.

Vega provides the foundation of digital airspaces, supplementing ANSPs and enabling UAS to operate in harmony with traditional aircraft.

- Flight plan authorization and pilot registration
- Supplements ATM systems
- Live Remote ID and ADS-B monitoring
- Non-cooperative target recognition and mitigation (NCTR)
- Geo-awareness, NFZs and NOTAMs
- Airspace prioritization and deconfliction

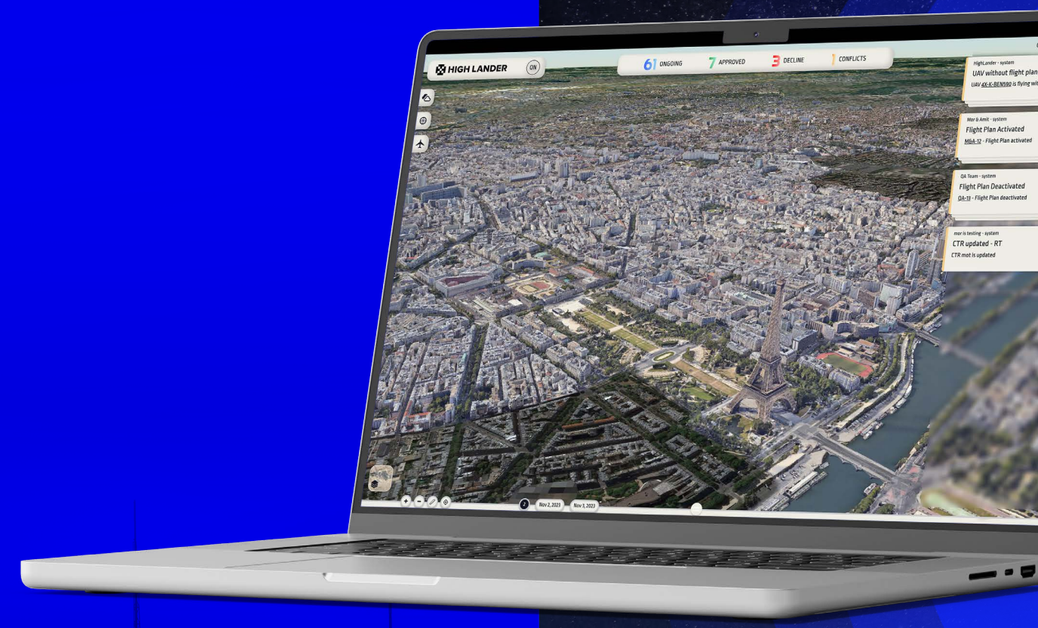
Welcome to the digital airspace

Increased use of UAS around the world means a steep rise in the volume and complexity of air traffic. With ANSPs and ATM systems already working at full capacity to manage air traffic, the world needs a new approach to airspace management.

The solution is the digital airspace. Where digital communication and data sharing allow coordination, optimization and automation of air traffic at greater scales and with no risk of human error. This is what Vega UTM provides.

Vega creates control zones where it gathers and shares airspace traffic data using telecommunications infrastructure, Network ID, ADS-B systems, external hardware integrations, data sharing, and more.

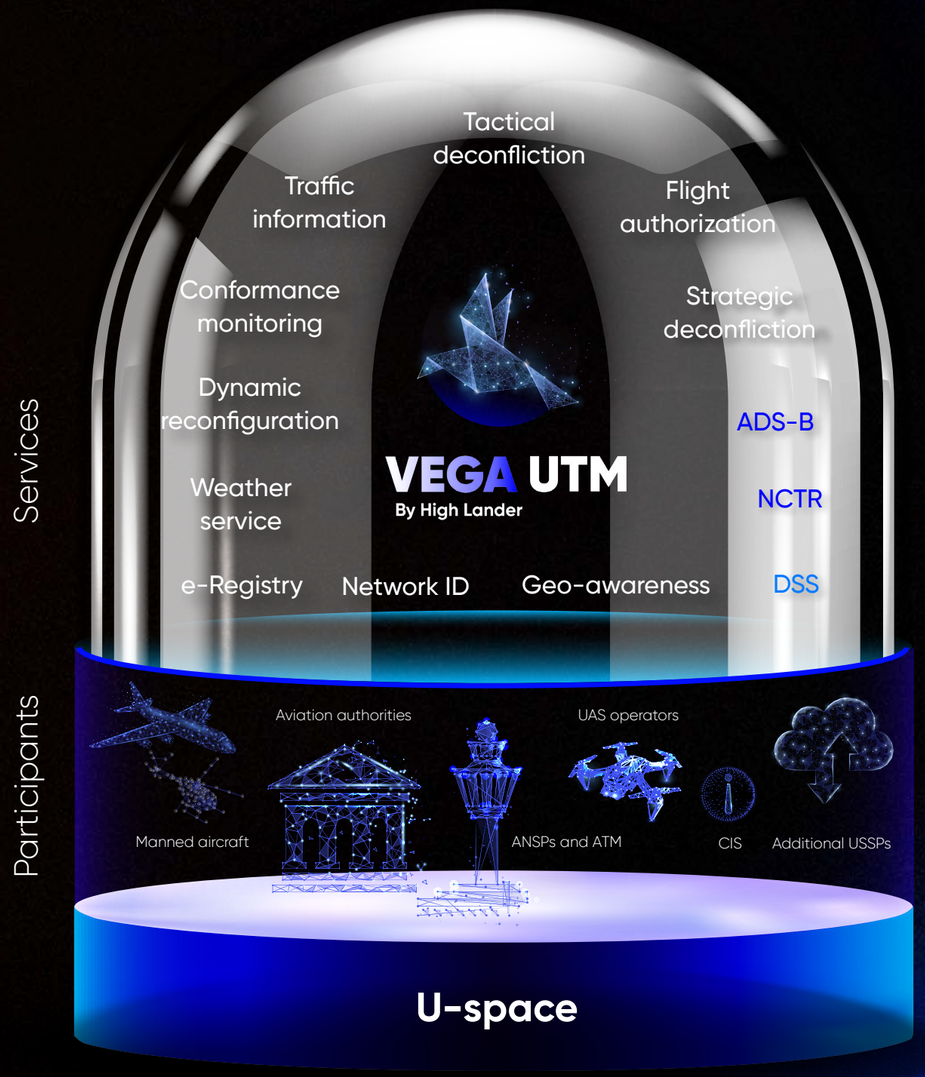
Authorities and organizations worldwide use the platform's intuitive dashboard, real-time map and rich data displays to make informed airspace decisions, at all levels of authority. Furthermore, Vega provides a framework for operators to register themselves and their drones, and broadcast telemetry and ID data in accordance with developing aviation laws.



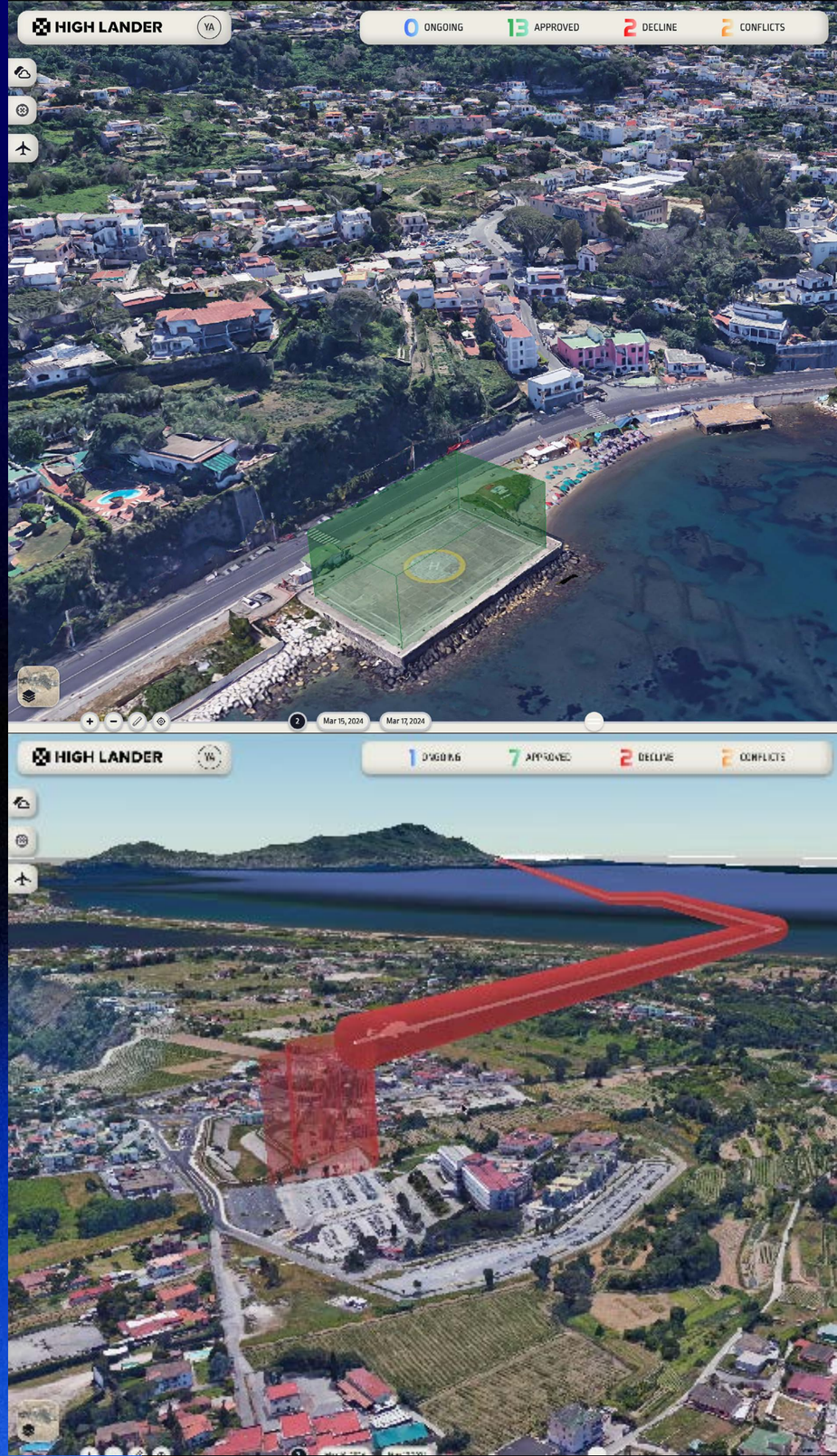
Regulatory compliance

Granted CAAI Air Traffic Management Unit License | EASA 2021/664 compliant
ASTM F3411-22a compliant | ASTM F3548-21 compliant | ISO 27001, 27701 and 90001 compliant
GDPR compliant | Supports ANSPs as defined by EASA 2017/373 and 2021/665 |
Global UTM Association member | Supports crewed aviation in U-spaces as defined by 2021/666 | Follows ICAO and JARUS UTM CONOPS guidelines

Building the Digital airspace



U-spaces are areas where UAS can operate in harmony with other entities, enabling operations in urban settings and other complex airspaces.



Harmonized air traffic management at any scale

Live monitoring and identification

Remote ID and ADS-B capabilities for telemetry and ID data on a real-time map. Enables conformance monitoring via a central platform.

Geo-awareness

Defines perimeters for restricted and prohibited zones for airspace closures, U-spaces and air taxi routes. Vega also enables NOTAM dissemination and provides terrain data for UAS pilots.

NCTR

Non-cooperative target recognition and mitigation via integrated DTI and soft-kill modules. Vega empowers authorities to differentiate between friend and foe and execute countermeasures when needed.

Flight authorization

Central portal for flight plan submissions. Vega provides strategic deconfliction to coordinate plans and prevent conflicts at pre-flight stage for safe and efficient traffic management.

Tactical deconfliction

Dynamic conflict prevention for in-flight protection of UAS, crewed aircraft and restricted and prohibited zones.

Prioritizations

Autonomously coordinates flight plans according to prioritization protocols, enabling first responder drones, advanced air mobility, and harmony with traditional aviation.

Conformance monitoring

When flight plans and traffic movements deviate from those approved, the system notifies the pilot and the relevant authorities, for separation and safety.

Weather service

Detailed meteorological data including wind speed and direction, rainfall, humidity, cloud cover and visibility.

Stages of implementation

Phased integration of Vega UTM infrastructure enables us to adapt the system to the specific needs of each client and organization and ensure efficient and effective implementation.

1

Foundation

Planning, basic implementation and system training. Provides situational awareness via live UAS and aircraft monitoring on a live map, NFZ display, terrain and weather data, and CIS data.

* **Pilot and UAS registration**
* **Remote-ID and ADS-B**
* **UAS identification monitoring**
* **Geo-awareness**
* **Common Information Service**
* **Weather service**
* **Training**

2

Intermediate

Enables enforcement of airspace regulations as regards UAV operations. Includes a pilot and drone registration portal, a flight plan authorization portal, and NCTR detection services.

* **Flight authorization**
* **Strategic deconfliction**
* **Messaging**
* **NCTR - detection**
* **Conformance monitoring**

3

Complete

Complete integration of U-space infrastructure. Includes tactical deconfliction, NCTR and mitigation, advanced airspace prioritization, messaging service for NOTAMs, dynamic geo-awareness, and billing capabilities.

* **Tactical deconfliction**
* **NCTR - mitigation**
* **Prioritization**
* **Connectivity to ANSP systems**
* **Billing**

Aviation is evolving, and thousands of new aircraft are filling the sky. It's time to embrace this new generation of aircraft with infrastructure that enables UAS to operate with safety and compliance, in harmony with traditional aviation.

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For more information, contact sales@highlander.io

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