

# DOLUNAY



We are an engineering and technology company engaged in longendurance unmanned aerial vehicle-based solutions, addressing a broad range of needs including border security, reconnaissance and surveillance, communication, search and rescue, and precision agricultural activities. We scale our solutions to meet your needs in a variety of fields, including the design and production of the aerial vehicle, and the integration of subsystems, including sensors and command control systems, onto the aerial vehicle. We also offer a rental service.

The approach we adopt for our products and solutions is based on the **life-cycle concept**, **standing by our customers in all phases**, **including development**, **integration**, **qualification**, **user training**, **maintenance and updates**.

The spherical shaped DOLUNAY, which can be operated by two personnel rapidly and practically in limited areas, is a portable aerostat product family. One of the features that distinguishes DOLUNAY from its competitors is its pressure balancing system. Used in upper class balloons, the system allows DOLUNAY to carry out its mission for a duration of approximately one week. The DOLUNAY family **can carry payloads of up to 20 kg to an altitude of 500 m,** and our ability to design tailor-made gondolas for specific payloads make it ideal for various missions.





Furthermore, DOLUNAY has a Mobile Anchoring Station that has been designed and produced specifically for the platform, allowing vertical take-off and landing, as well as safe flight and parking.

The members of DOLUNAY product family, which consists of various models that can be adapted according to the users payload and altitude requirements, are interoperable with the OTONOM GCS, another product of ours. Compatible with JAUS architecture, the OTONOM GCS offers many capabilities such, as integrated platform control, control of numerous platforms from a single unit, monitoring of platform status information, generation and displaying of operator warnings, integrated payload control, map support, recording and a changeable user interface.

DOLUNAY is a portable and compact aerostat solution with features that can be optimised for specific missions.

## Operational Class DOLUNAY **Technical Specifications:**



## **Technical Data**

|                               | MINI                   | TACTICAL               | OPERATIONAL            |
|-------------------------------|------------------------|------------------------|------------------------|
| Payload Capacity              | < 5 kg                 | 5 kg-10 kg             | 10 kg-20 kg            |
| Operational Altitude          | 150m (AGL)             | 300m (AGL)             | 500m (AGL)             |
| Endurance                     | 1 Day                  | 3 Days                 | 1 Week                 |
| Gondola                       | Modular Gondola Design | Modular Gondola Design | Modular Gondola Design |
| Operating Temperature Range   | -20°C / +55°C          | -20°C / +55°C          | -20°C / +55°C          |
| Maximum Wind Speed            | 20 Knot                | 20 Knot                | 20 Knot                |
| Pressurizing System           | None                   | Optional               | Automatic              |
| Length                        | < 3 m                  | 4,4-5,7 m              | 5,7-6,8 m              |
| Max. Height (Parking Postion) | 3,5-4,2 m              | 4,2-5,6 m              | 5,6-6,7 m              |
| Max. Volume                   | < 20 m <sup>3</sup>    | 35-70 m <sup>3</sup>   | 70-120 m <sup>3</sup>  |
| Mooring Station               | Mobile                 | Mobile                 | Mobile                 |
| Power Transmission            | 0 - 1 kW               | 0 - 1,5 kW             | 0 - 3 kW               |
| Hauling Speed (meter/minute)  | '12-20                 | '12-20                 | '15-30                 |
| Lifting Gas                   | Helium                 | Helium                 | Helium                 |

#### **MINI CLASS**

This is an agile aerostat system that can be mounted on a mobile platform and operated by a small crew. The system can be mounted on both land and naval platforms thanks to its fuselage design.

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### **TACTICAL CLASS**

This easy-to-use aerostat family can meet a broad range of tactical needs, by being rapidly deployable in various fields of operation, and with a 24/7 mission capability.

#### **OPERATIONAL CLASS**

The aerostat system has a 500 m operational altitude, providing reconnaissance, surveillance and communication capabilities at long ranges. The system is capable of carrying out week-long uninterrupted missions.



## **Application Areas**

## Land Traffic Management

When needed, can be deployed rapidly to the required region and can be made mission-ready with only two operators, enabling traffic over a wide area to be monitored from the air, and the necessary measures to be taken in a timely manner.





## Disaster and Emergency Management

In the event of disasters or other emergencies, can be rapidly deployed to the region and be made mission-ready with only two operators to meet various needs, ranging from surveillance to communication.

## Reconnaissance, Surveillance and Intelligence

Can be deployed together with moving troops, providing uninterrupted surveillance, reconnaissance and intelligence support, even at the most remote places.



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In cases where the coverage area or communication infrastructure is insufficient, can easily be deployed to the region and can expand the coverage area by carrying payloads to high altitudes; and can ensure direct communication between assigned units over a broad area.

## **Environment Protection**

In its region of operation, allows the detection of damage to the environment and performs continuous monitoring.









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