

2nd line for parcel delivery by drone in France

DPD France, a subsidiary of DPDgroup, delivers parcels by drone in mid-mountain areas. DPD France has received authorisation for drone parcel delivery on a second regular commercial line in Isère (South-East of France), which links Fontanil-Cornillon to the village of Mont-Saint-Martin in an 8-minute round trip. Delivery by drone will be provided from a mobile terminal installed directly in a delivery vehicle, guaranteeing safe drone take-off and landing.



In December 2016, the Directorate General for Civil Aviation (DGAC) authorised DPDgroup to offer drone parcel delivery on a regular commercial line in the Var (South of France) between Saint-Maximin-la-Sainte Baume and Pourrières. This first line highlighted the benefits of drone technology for parcel delivery in isolated sites. Thanks to these two years of operations, the parcel subsidiaries of DPDgroup are in a position to roll out solutions for delivery by drone. For this second commercial line, DPD France is innovating by deploying the solution "Driver's assistant": the drone is operated during the usual delivery round

from a vehicle specially equipped with a mobile terminal.

This mobile terminal was once again developed in partnership with the French company Atechsys located in the Var, which designed DPDgroup's first drone.

The mobile terminal lets deploy the drone take-off and landing equipment directly from the delivery van's side door. During his round, if the driver has parcels for customers in Mont-Saint-Martin, he parks his vehicle in a dedicated parking space at Fontanil-Cornillon in order to safely perform the following manoeuvres:

- Activate the terminal's deployment;
- Scan the parcel;
- Clip the parcel under the drone;
- Check to make sure that the area around the van is clear;
- Request take-off authorisation from the Atechsys operator;
- Wait for the drone to take off.



During the entire delivery mission, the drone is on fully automatic flight mode, under the remote supervision of an operator certified by the Aviation Safety Agency (DSAC).



When the parcels arrive in Mont-Saint-Martin, they are deposited by drone in a secure, fixed receiving terminal near the town hall, making it possible to receive and store several parcels. Parcels are deposited in a compartment that protects them from the weather.

A delivery receipt is sent via SMS/email to a town hall employee, who is thus able to receive the parcel in the compartment just like in a mail box, then hand deliver it to the final recipient.

Electrically autonomous with its solar panels and connected via WiFi/GSM, the terminal guarantees safe delivery by avoiding all drone handling.

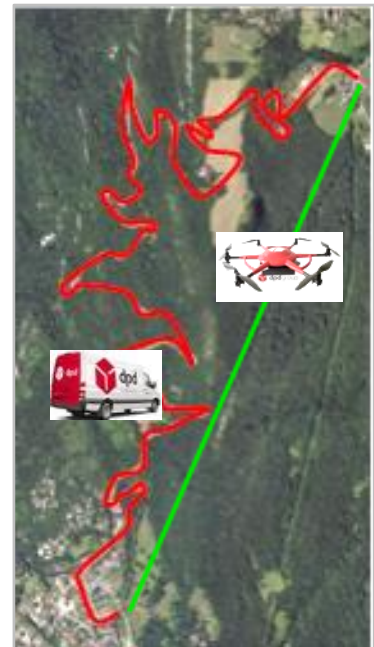
Once the parcel is delivered, the drone returns to the van and the delivery can continue with his delivery round.

8 minutes by drone as against 30 minutes by car

Usually, the driver must travel 20 km for a round trip lasting some 30 minutes to go to Mont-Saint-Martin. This new drone delivery line means that delivery vans can avoid mountain roads and reduces the parcel delivery route to 3 km for a round-trip flight of 8 minutes.

There are many benefits to drone delivery in the mountains as compared to delivery by van. For the driver, in addition to the time saving, there is reduced road risk on roads that are dangerous and sometimes virtually blocked, especially in winter. For the customer, it guarantees that he will receive his parcel even if the road is impassable due to precipitation. Finally, as the drone is electric-powered, it does not emit any CO₂ into this protected natural environment.

The introduction of this service follows a research project backed by ADEME (Agency for the Environment and Energy Management).



Drone technical specifications

Operational capabilities:

Range: up to 15 km, or around 45min (depending on the wind)

Payload: up to 2 kg

Empty weight: 4 kg

Cruise speed: 30 km/h

Technical specifications:

6 electric rotors

Carbon fibre chassis

Redundant embedded electronics

Navigation system:

Embedded GPS and real-time trajectory tracking

Transmission range: up to 30 km

Ground station for programming and monitoring



Safety:

- Autonomous parachute
- Collaborative anti-collision system
- Monitoring cockpit
- Camera with ground transmission and flight recorder

Delivery terminal:

This innovative device secures the drone take-off, landing, loading and unloading stages. As a connected object, it provides customer with real-time delivery information.

Technical characteristics of the receiving terminal:

- Dimensions: 2.4m high, central diameter 1.2m
- Power supply: 230V / 50Hz
- Energy autonomy: via photovoltaic solar panels
- Connectivity: wifi and 3-4G
- Storage capacity: up to 10 parcels
- Positioning accuracy: incorporated Availability: round-the-clock automatic operation, telemaintenance
- All-weather (IP64 standard)
- Reduced-mobility friendly

About DPDgroup

DPDgroup is Europe's second largest parcel delivery network.

DPDgroup combines innovative technology and local knowledge to provide a flexible and user-friendly service for both shippers and shoppers. With its industry-leading Predict service, DPDgroup is setting a new standard for convenience by keeping customers closely in touch with their delivery.

With more than 75,000 delivery experts and a network of more than 42,000 Pickup points, DPDgroup delivers 5.2 million parcels each day through the brands DPD, Chronopost, SEUR and BRT.

DPDgroup is the parcel delivery network of GeoPost, which posted sales of €7.3 billion in 2018. GeoPost is a holding company owned by Le Groupe La Poste.

About DPD France

Established in France more than 20 years ago, DPD France is part of DPDgroup, the international parcel delivery network owned by GeoPost, the second largest company on the European market.

Catering to businesses, DPD France relies on a network of 58 depots and 6 sorting hubs across France, operated by more than 2,000 employees who handle and deliver over 300,000 parcels every day. With its DPD CLASSIC Europe and DPD CLASSIC Intercontinental services, DPD France also enables its customers to increase exports via the robust and efficient DPDgroup network.

DPD France boasts 3 major assets to support its customers: geographic proximity, with sales and customer service teams operating out of each of its 58 depots, alternative delivery with its 5,900 Pickup points across France, and Predict, an interactive delivery service that enables consignees to choose a delivery time slot or rearrange delivery to suit their needs and fit in around their schedules.

In 2018, DPD France delivered more than 76 million parcels.

To find out more: www.dpd.fr



About Atechsys and the Research and Testing Centre for Autonomous Models (CEEMA)

Atechsys was born out of the idea that every usage requires a special drone. Instead of simply churning out drones, Atechsys develops technological building blocks which, once assembled, allow the construction of a drone which is perfectly suited to the customer's needs. These are third-generation drones. This unique positioning on the market, combined with a mastery of the entire supply chain, lets Atechsys verticalize its offer. With 9 employees and a turnover of 650 k€ in 2013, Atechsys is among the market leaders for professional civilian drones.

CEEMA is the leading testing centre for civilian drones in Europe. Founded in 2008, this 65-ha aeronautical platform has become a reference in five years. In particular, the centre has a reserved airspace making it possible to test drones of up to 150 kg. In 2010, CEEMA launched the first dedicated business incubator for civilian drone applications. This stimulating, reassuring environment for entrepreneurs, which was certified by the State in 2013, currently hosts 15 companies and has led to the creation of some thirty sustainable jobs.

About ADEME

The Agency for the Environment and Energy Management (ADEME) helps implement public policies in the fields of the environment, energy and sustainable development. It makes its expertise and consulting skills available to companies, local authorities and the general public, to help them move forward in their environmental approach. In addition, ADEME assists with project financing, research and implementation in the following areas: waste management, soil preservation, energy efficiency and renewable energies, savings on raw materials, air quality, noise control, the transition to the circular economy and efforts to combat food waste.

ADEME is a public establishment under the joint authority of the Ministry for Solidary Ecological Transition and the Ministry of Higher Education, Research and Education.

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