

USE CASE

RAILWAY ROUTINE & EMERGENCY SURVEILLANCE

SNCF is France's national state-owned railway company and manages the whole rail traffic in France. SNCF operates the whole country's national rail services, including the TGV - France's high-speed rail network.



2013
STARTING
POINT

6
HRS OF FLIGHT
PER NIGHT

365
NIGHTS
PER YEAR

30 000
KMS OF
RAILWAYS

30
KMS TRANSECTS

THE NEED

The SNCF needed a modern reactive video tool for the routine and emergency surveillance of its 30 000 kms french national network.



The common method was accomplished by helicopter, which remains loud, not flexible and expensive or by humans on the ground which is not safe and discreet enough. They need a multi-tasking alternative tool. Detection of potential threats that could endanger the sustainability of the network is key for SNCF. Being capable also to provide an emergency response to crisis situation is crucial. On the field, a real-time video detection is needed to detect any act of vandalism (copper cable theft), trespassing, rail accident or vegetation encroachment on the railways.

THE SOLUTION



DT26X UAV - DT-Eye X Sensor

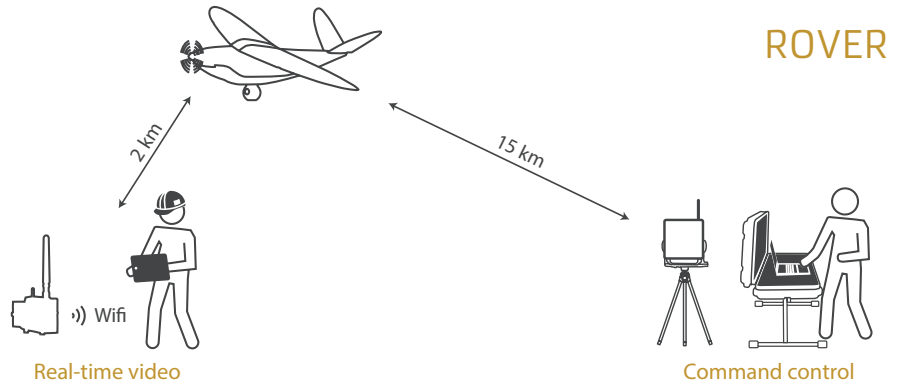


Delair-Tech drones are the solution to 21st century surveillance, security and observation deficiencies for the railway industry. The Delair-Tech cost-effective, discrete, intuitive and highly reactive solution meets the SNCF's expectations, both in terms of routine and emergency inspection. The long endurance and range of the Surveillance package allow operators to execute day and night surveillance operation. The high value added sensor - DT-EyeX high resolution video-surveillance turret - and its exceptional capacities (automatic moving object tracking, zoom optical x10) finished to convince SNCF teams.

THE OPERATION

SNCF operates Delair-Tech UAV with its own pilots. The safety system in Delair-Tech UAV made the DT18 be certified for Beyond-Visual Line of Sight by September 2012. Thanks to its professionalism and the safety embedded system inside the DT26X, SNCF is certified to operate BVLOS its fleet of DT26X which makes them be able to monitor long sections of the network. The solution is operated from a truck that has been specifically designed for the transportation and operation of 3 DT26X from the inside and seats for one pilot and one payload operator.

On the field, SNCF agents are informed of the situation on the ground and can receive real-time video on a ROVER. A 4G private network in which the DT26X can transmit real-time video, can also be deployed for critical operations.



DATA ANALYSIS

Video and geotracking are available for the customers to facilitate the payload operation. Software stabilisation algorithms can also be embedded in the system to improve the quality of the data.

DELIVERABLES

The EO and IR videos are used in real-time and can be also downloaded after any inspection by the SNCF teams. SNCF operators have also the capacity to capture some points of interest by saving georeferenced screenshots of the field.



WHY DID THEY CHOOSE DELAIR-TECH

✈ The **most advanced drone technology** for linear infrastructure inspection with **BVLOS certification** capacities.

🕒 The unique **ultra-long-range UAV (DT26X)** that can carry **high value-added sensors** with a **high endurance** (2.5 hours)

🕒 **Easy and quick** deployment for **discrete day and night operations**.

▶ **Real time video transmission** and **real night vision** capability of the IR sensors and a ruggedized system.