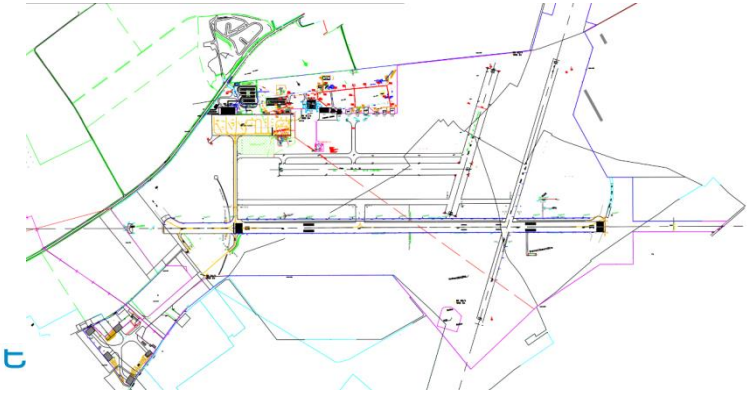
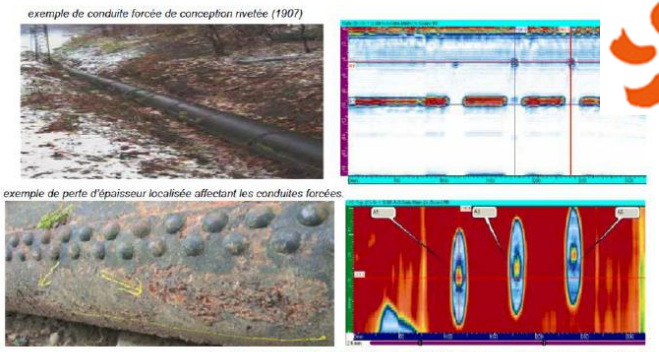
Ceos project goals

Inspections of 3 types of critical infrastructures by drone

- Airport fences
- Medium-voltage power lines
- Penstocks



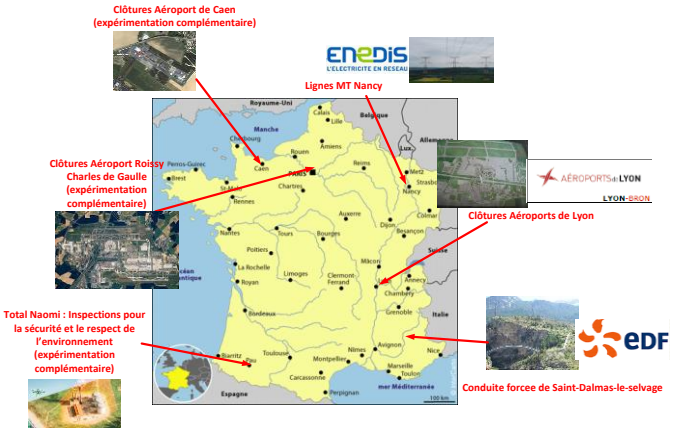
aéroport CAEN CARPIQUET

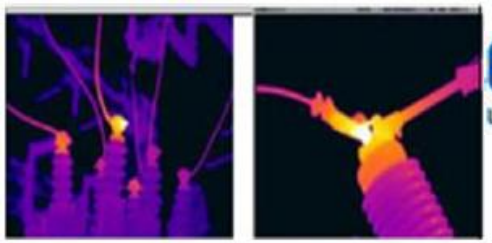


EDF

3 Field experimentations

- With many other opportunities





ENEDIS L'ELECTRICITE EN RESEAU

Site web

CEOS

Ceos project challenges

- Automated infrastructures anomalies detection

- Automatic flights beyond visual line of sight (BVLOS)
- Extended operational availability (> 200 days per year)
- EASA JARUS SORA based air and ground safety analysis and AMDEC based failures management
- French and European regulations
- Cyber-security (protection of wireless communications)

Site web

Ceos project drone performance (estimation) and main sensors

Performance and features	
Take-off weight	25 kgs
Dimension	Distance between motors : 1150 mm Height : 800 mm
Power	LiPo 12S 44 Ah
Maximum thrust	70 kgs
Take-off maximum weight	30 kgs
Maximum thrust versus weight ratio	2.8 at 0 meter altitude / 2.1 at 2500 meters altitude
Range at 25km/h	5.6kms (in 12 minutes)
Maximum speed	75 kms/h
Hovering power	4.2 kW
Maximum power	18.9 kW
Emergency systems	Parachute + engines cut
Drone impact energy with emergency systems	250 J
Transportation	1150 x 250 x 400 mm

Main sensors
Canon EOS
IDS camera
Lightware LIDAR
IR Lock
RTK GPS

Site web