

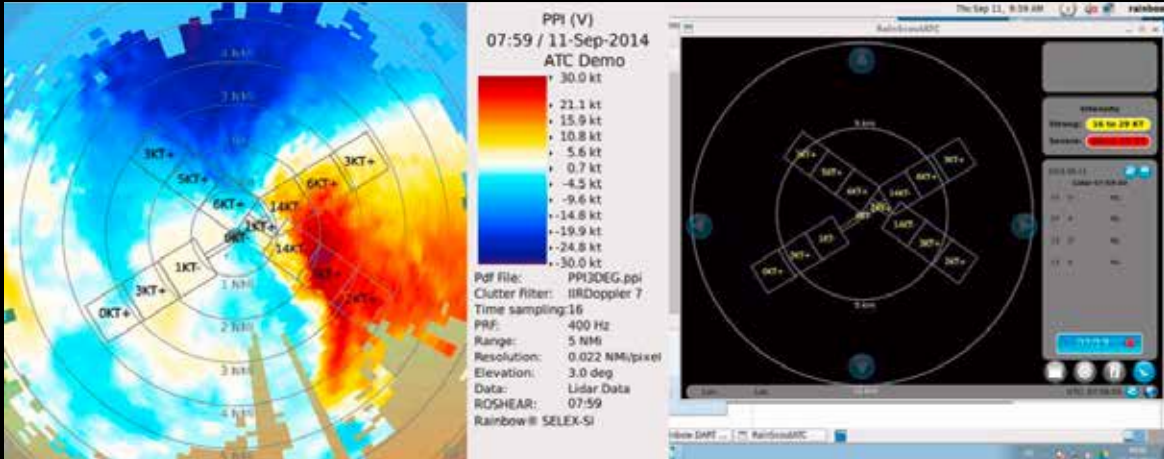
# WINDCUBE

## 400S-AT

AVIATION LIDARS

# WIND SHEAR

Leosphere, worldwide leader in atmospheric Lidars, offers reliable solutions for mitigation of wind hazards in airports



Rainbow®5 software with its interface for the generation of wind shear alerts

## Wind shear detection in airports: a major concern for pilots and controllers

- Adverse weather represents one of the major causes of accidents that occur during takeoff and landing
- Wind shears involving headwind or tailwind changes of 15 knots or more have been identified by ICAO as a serious danger which could adversely affect aircrafts' lift and air traffic operations (go-around, delays, rerouting)

## Windcube®: an ICAO compliant turnkey solution

- Real-time detection of wind shear with an automatic alert generation for air traffic controllers
- Help weather forecasters to establish warnings with a regional 3D wind and wind shear mapping
- Complementary sensor to X-Band radars for an all-weather wind shear detection system

## Key Features

- Next generation industrial-grade Lidar systems for wind and wind shear measurement
- Very compact and robust system
- Cost-effective and low-maintenance technology
- Compatible with AWOS
- Local dedicated services for maximum uptime



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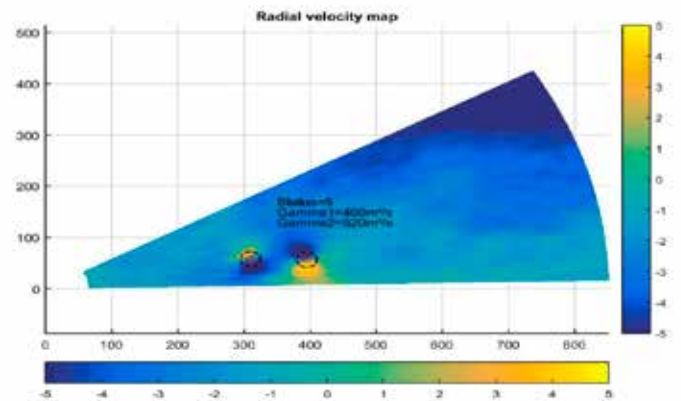
# WINDCUBE<sup>2</sup>

## 200S

AVIATION LIDARS

## WAKE VORTEX

Leosphere, worldwide leader in atmospheric Lidars, offers reliable solutions for mitigation of wind hazards in airports



Windcube 200S deployed by Eurocontrol in the frame of RECAT operational deployment in CDG Airport

## Air traffic growth requires to optimize separations between aircrafts

- Air traffic is currently regulated with minimum distance separations that could certainly benefit from a more comprehensive understanding and risk mitigation of the air traffic wake vortex behaviour
- Growing interest, worldwide, in initiating operational wake turbulence programs for **optimizing runway throughput**
- New regulations to be implemented within the next years: RECAT, TBS, other WDS...

## Windcube enables the deployment of new wake turbulence operational concepts

- Wind and EDR assessment for preliminary opportunity analysis related to weather-dependent separation concepts
- Wake vortex data collection (detection and full characterization) for safety assessment
- Actual field monitoring of the wake vortex encounter events during safety monitoring phases
- Real-time wind monitoring along the glide to feed ATC systems
- Already used in Japan and Europe through CARATS and SESAR programs

## Key Features

- From data collection campaigns to **turnkey safety** cases and permanent wind monitoring equipment
- High fidelity and accurate wind and wake vortex data, validated against aircraft information
- Industrial grade fiber optics wind Lidar, proven on a fleet of more than 600 units deployed worldwide
- Cost-effective installation and easy-to-maintain
- Compact and movable system to cover all areas of interest