

PARIS-CDG

A pioneer for innovative,
operational concepts

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DEPLOYING HIGH-PERFORMING AIRPORT OPERATIONS FOR SAFETY, ENVIRONMENT AND CAPACITY

Paris-CDG, one of the busiest airports in Europe,
is the 1st European airport equipped with
the RWSL system, RECAT-EU and
triple, parallel, independent PBN/ILS approach procedures.



During peak hours at Paris-CDG airport, one aircraft lands every 50 seconds. Moreover, the location of Paris-Le Bourget, the number one European business airport, close to Paris-CDG airport, requires robust ATC coordination between the two air navigation service units.

In the context of runway capacity increase up to 82 incoming flights per hour at Paris-CDG airport, DSN and its partners have commissioned **3 major, innovative and complementary projects in the safety, environment and ATC capacity**. All these projects have been recognised in the Jane's ATC Awards, nominations assessed by a panel of experienced experts!

RWSL: AN EFFICIENT SAFETY NET AGAINST RUNWAY INCURSIONS

OPERATIONAL BENEFITS



- Reduction of the most serious runway incursions
- More situational awareness for pilots and vehicle drivers

The RunWay Status Lights (RWSL) system was deployed at Paris-CDG on the Northern inner runway (09R/27L) on the 24th of October 2016 and on the Southern inner runway (08L/26R) on the 23rd of May 2017.

As a complement to already existing ground surveillance tools, this high technology, autonomous and automatic, safety system indicates to pilots and vehicle drivers by a system of ground lights, if the runway is dangerous or not for a takeoff (Take-off Hold Lights) or a runway crossing (Runway Entrance Lights). With the RWSL system, pilots and vehicle drivers can make runways even safer.

RECAT-EU: SAFER AND CLOSER

Since 22nd March 2016, the new European wake vortex recategorisation (RECAT EU) has been in service at Paris-CDG and Le Bourget airports. Paris-CDG controllers can reduce spacing distance by up to 30%, depending on the sequencing of aircraft, resulting in a reduction in delay, aircraft flying time and fuel consumption.

These more accurate separations are integrated in triple, independent parallel approach procedures to optimise wake sequencing on arrival.

OPERATIONAL BENEFITS



- Increased flexibility in traffic separation delivery
- A better integration of light aircraft and differences in tonnage



- Enhanced runway throughput: 2-4 aircraft movements per hour at peak periods
- Peak throughput maintained with unfavorable traffic mix in adverse situations



TRIPLE, PARALLEL, INDEPENDENT PBN/ILS APPROACH PROCEDURES: MAINTAINING SAFELY A HIGH LEVEL OF CAPACITY IN CASE OF ILS UNAVAILABILITY

Since 9th October 2018, Paris-CDG and Le Bourget have been using a mixed landing PBN/ILS concept. Now, the approach controller has different options to operate the parallel approaches network. As regards aircraft equipment, 95% of airlines can fly using these Performance Based Navigation (PBN) procedures at Paris-CDG and about 60% at Le Bourget. Thus, the accessibility of Le Bourget airport during the next replacement period of ILS 27 from 8th July to 30th October 2019 will be maintained for the PBN equipped operators but strongly reduced for those who are not. With this modus operandi, the principle of "most capable, best served" will be deployed in TMA Paris from summer 2019!

OPERATIONAL BENEFITS



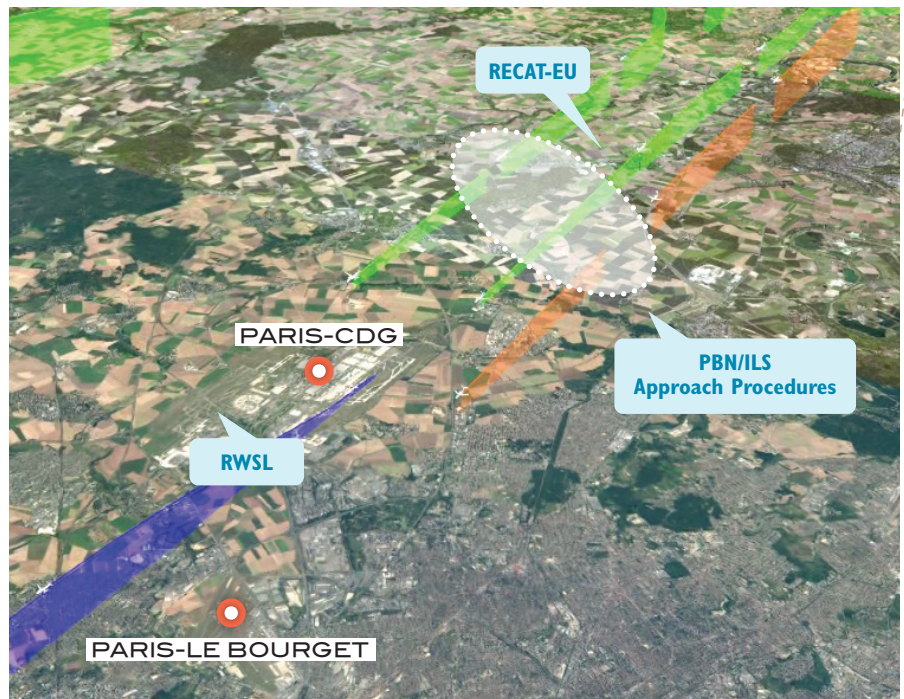
Enhanced safety by minimising separation losses at the interception of approach axis



New approach flight paths reducing the impact of civil aviation in terms of emissions of CO₂ and noise



- A back-up solution in case of the unavailability of ILS on the ground when the weather is consistent with the PBN procedure operational minima
- Improved traffic regularity by offering optimised approach procedures and simultaneous use of runways





easyJet

"We have seen recently a great safety improvement at Paris-CDG airport by the implementation of the Runway Status Lights System at RWY 27L/09R. This additional safety protection system is in our world of aviation considered as being effective and efficient. EasyJet would like to congratulate the airport of Charles de Gaulle for the implementation of the RWSL system as it makes it safer for our pilots, crew and passengers."



"Paris-CDG is a pioneer for RECAT-EU implementation in Europe. CDG has demonstrated that this innovative concept facilitates high performance for the Single European Sky. Leipzig-Halle airport also deployed RECAT-EU to update its wake turbulence scheme to optimise their Heavy freight peaks. RECAT-EU has also been in operation at London-Heathrow since November 2018. Vienna has planned deployment of RECAT-EU in 2019."

AIRFRANCE

"With the project of triple, parallel, independent PBN/ILS approach procedures, we took care to minimise the impact on ATCOs' working methods and to ensure ourselves of the ability of pilots to use these RNAV procedures. Our fleet is now totally equipped to operate using these new procedures, making air traffic organisation at Paris-CDG airport more resilient in case of on ground radionavigation aids unavailability."

Thanks to our partners:



We certify you're there.



Co-financed by the Connecting Europe Facility of the European Union