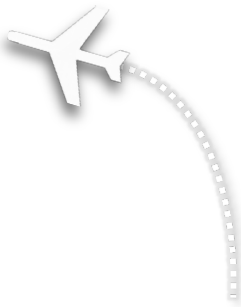


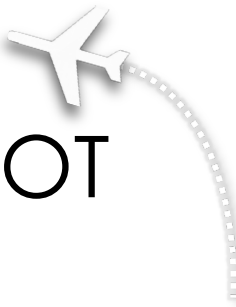


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Safety Promotion Committee 2017 Edition

A new approach on collaborative safety ?



RECAT EU/HIRO/ROT

- **SUMMARY**
- **RECAT Eu : what is it? (Reminder)**
- **HIRO : what is it? (Reminder)**
- **RECAT/HIRO/ROT : how are they related?**
- **RECAT Eu : is it safe?**
- **HIRO : is it practicable?**
- **Runway Occupancy Time on inner runways: can it be improved?**



RECAT EU/HIRO/ROT

➤ RECAT Eu: definition

Distance Separation Minima for Arrival and Departure

		SUPER HEAVY	UPPER HEAVY	LOWER HEAVY	UPPER MEDIUM	LOWER MEDIUM	LIGHT
SUPER HEAVY	AN-124 A380	3.0	4.0	5.0	5.0	6.0	8.0
UPPER HEAVY	A332 B744		3.0	4.0	4.0	5.0	7.0
LOWER HEAVY	MD11 B763		MRS*	3.0	3.0	4.0	6.0
UPPER MEDIUM	B738 A320						5.0
LOWER MEDIUM	E190 AT45						4.0
LIGHT	SF34 LJ35						3.0

Reduced
Increased

MRS Minimum Radar Separation minima, set at 2.5 NM as reference



RECAT EU/HIRO/ROT



HIRO @ CDG

DLH29L
029\M16
-08

AFR198R
021\M16
-08

EZY67KU
013\M16
-07

High Intensity Runway Operations
Improve Capacity. Reduce Delays.

The HIRO procedures aim to improve the operational efficiency of Paris CDG airport.

They are a joint effort between aircrew and air traffic controllers.

Aircrew keeping runway occupancy time to a minimum allows air traffic controllers to plan runway use more efficiently.

This facilitates better spacing between aircraft on approach and departure, leading to higher capacity and reduced delays; in turn reducing flight time, fuel consumption, and go-arounds.

Your involvement is essential for the benefit of everyone.



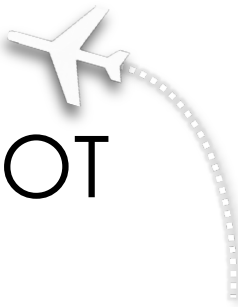
RECAT EU/HIRO/ROT

➤ HIRO-ROT-RECAT Eu : how are they related?





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RECAT EU/HIRO/ROT

- According to you, are there any safety issues remaining unsolved as far as RECAT is concerned? (facts and figures appreciated)



RECAT EU/HIRO/ROT

20.3.2.1.1 HIRO

Les procédures HIRO sont en vigueur à l'Aéroport de Paris Charles de Gaulle.

Lors de ces procédures, les pilotes doivent s'assurer d'un temps d'occupation minimal de la piste. Voir AD2 LFPG.20-3.2.3

20.3.2.1.1.1 Arrivée

Les procédures HIRO sont actives entre 07h00 et 12h30 (heure locale) et entre 19h00 et 20h00 (heure locale).

Au stade du briefing, planifier une voie de sortie rapide compatible avec les performances du jour et permettant un temps d'occupation minimal de la piste.

Distance du seuil à la voie de sortie rapide (m)* / Distance from threshold to Rapid Exit Taxiway (m)*

08R	V5 : 1408	V6 : 1950	V7 : 2411
08L	W4 : 1459	W5 : 2104	W6 : 2665
09R	Y4 : 1459	Y5 : 1996	Y6 : 2637
09L	Z5 : 1429	Z6 : 1967	Z7 : 2420
26R	W3 : 1455	W2 : 2076	W1 : 2647
26L	V4 : 1428	V3 : 2068	V2 : 2519
27R	Z4 : Fermé / Closed	Z3 : 1970	Z2 : 2474
27L	Y3 : 1461	Y2 : 1998	Y1 : 2649

*Pour le calcul des distances mentionnées, on suppose que le point de divergence de l'axe du DGV est franchi à 50 kts.

Maintenir la vitesse de dégagement jusqu'au franchissement des marques de point d'arrêt, puis décélérer vers la vitesse de roulage et maintenir le point d'arrêt de la voie spécifiée par le Contrôle avant la piste intérieure.

20.3.2.1.1 High Intensity Runway Operations

High Intensity Runway Operations (HIRO) are in force at Paris Charles de Gaulle Airport.

During these operations pilots are expected to ensure minimum runway occupancy time (MROT). See AD2 LFPG.20-3.2.3

20.3.2.1.1.1 Arrival

High Intensity Runway Operations (HIRO) are active between 07h00 am to 12h30 pm (LT) and between 19h00 pm to 20h00 pm (LT)

During the arrival, select an appropriate and achievable Rapid Exit Taxiway to ensure MROT.

* Distances calculated to begin turnoff at 50 knots.

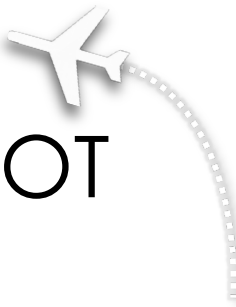
Pilots should clear the runway completely (holding point markings) before decelerating to taxi speed and hold short of the inner runway at the holding point allocated by the Control Tower.



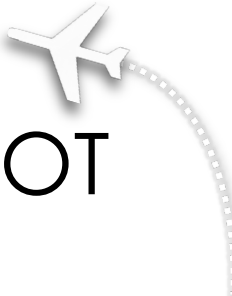
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RECAT EU/HIRO/ROT

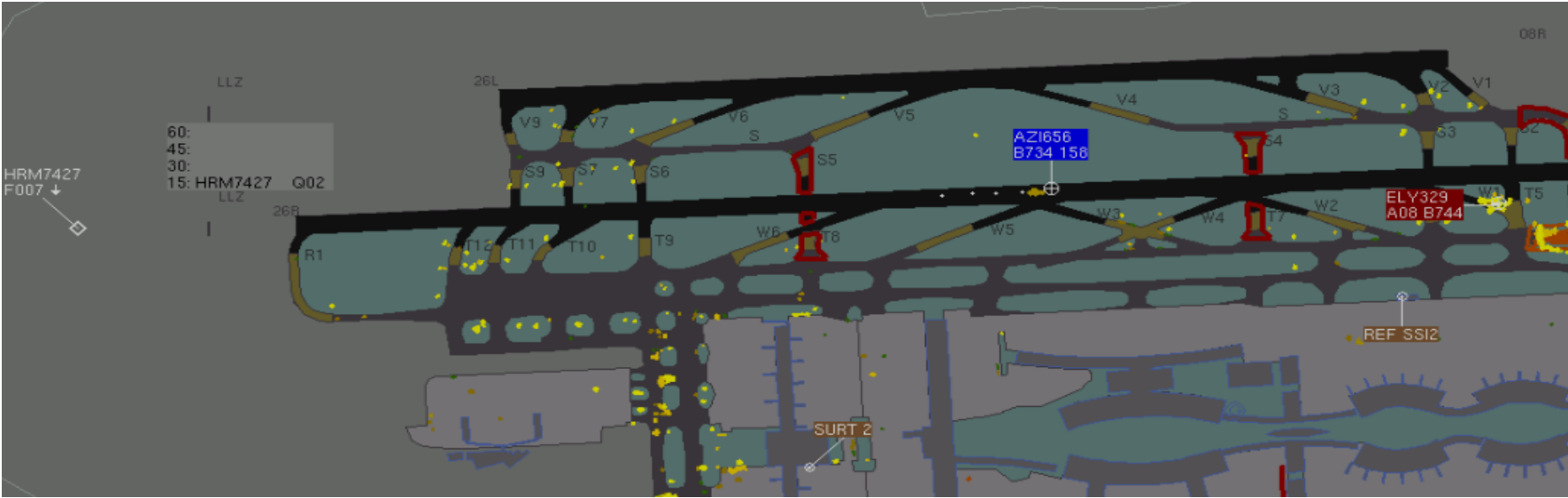


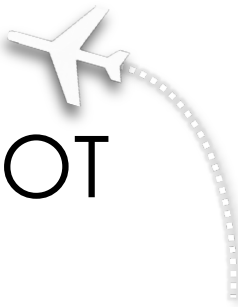
- Airlines feedback :
- Information availability?
- In-flight briefing?
- Adapting to following traffic?



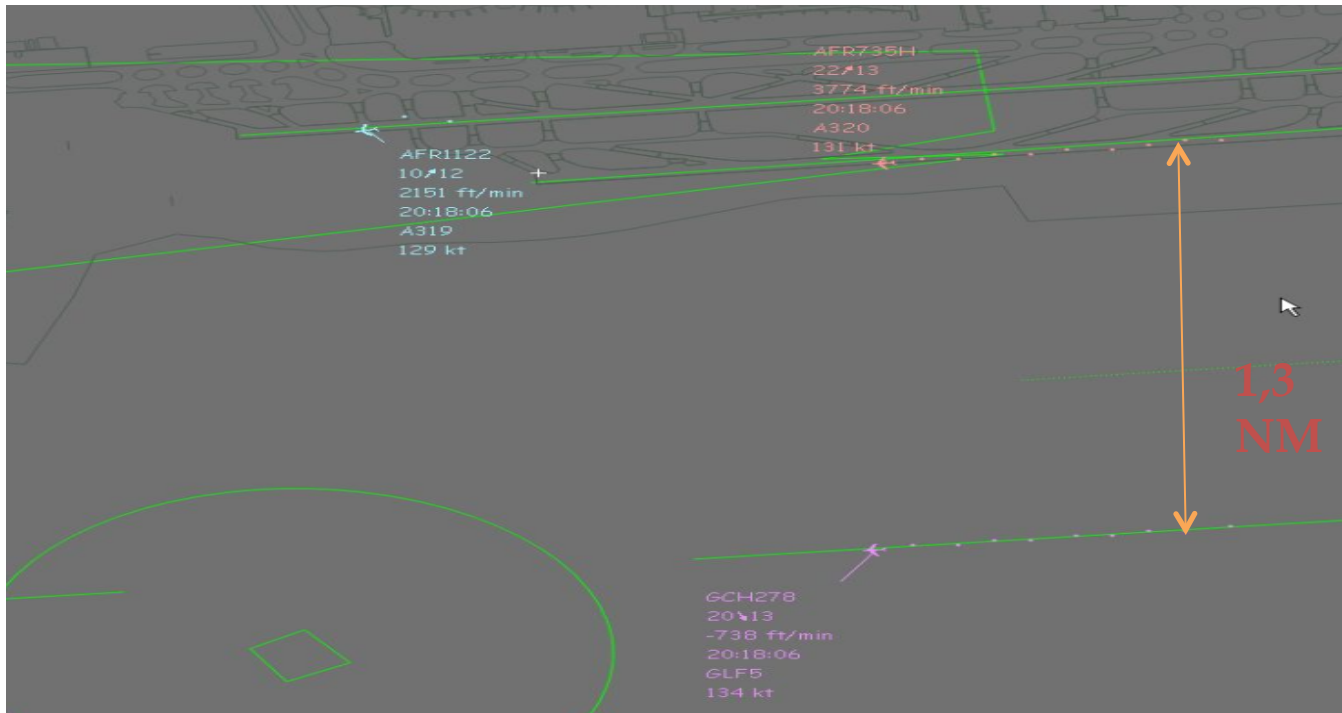
RECAT EU/HIRO/ROT

- Runway closure summer 2018





- Some top-down information : runway closure summer 2018

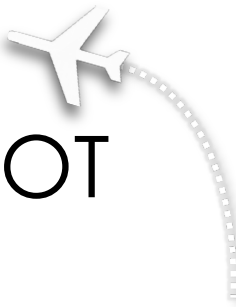




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RECAT EU/HIRO/ROT



- Runway closure summer 2018

How do we get ready? The ATCO side

- Instructions and briefing for ATCOs
- Sim sessions on mixed mode runways
- Adjusting separations on final



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RECAT EU/HIRO/ROT

- Runway closure summer 2018

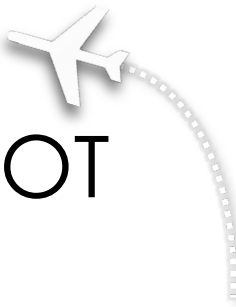
How do we get ready? The airport operator side



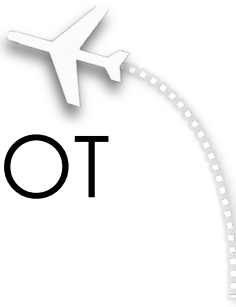
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RECAT EU/HIRO/ROT



- Runway closure summer 2018
- How do we get ready? The airlines side
- Landing on inner runways : any issues?

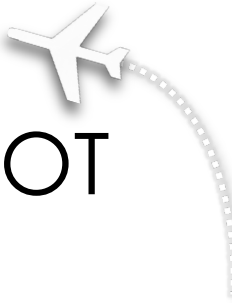


- Runway closure summer 2018

How do we get ready? The airlines side

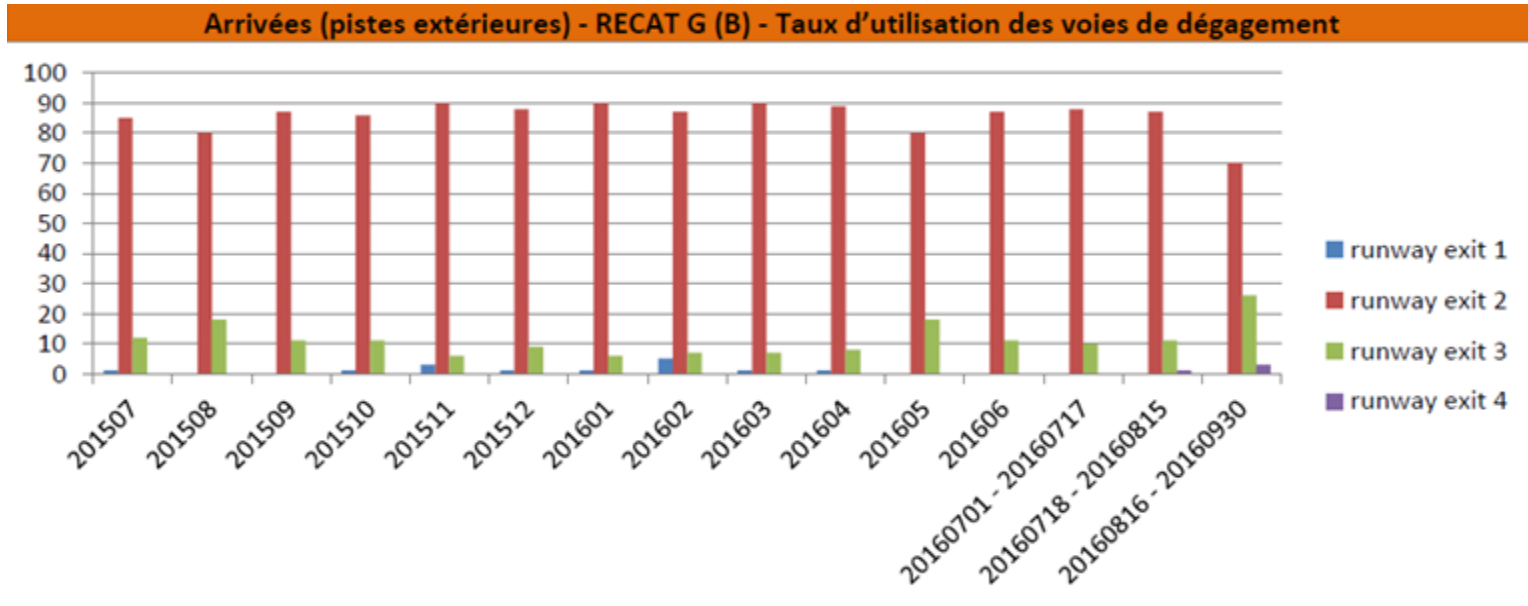
- Rapid exit taxiway selection
- Situational awareness : what's really going on?

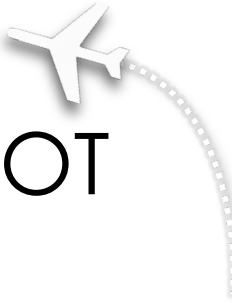
- Taking the easy route : what do we really want?



RECAT EU/HIRO/ROT

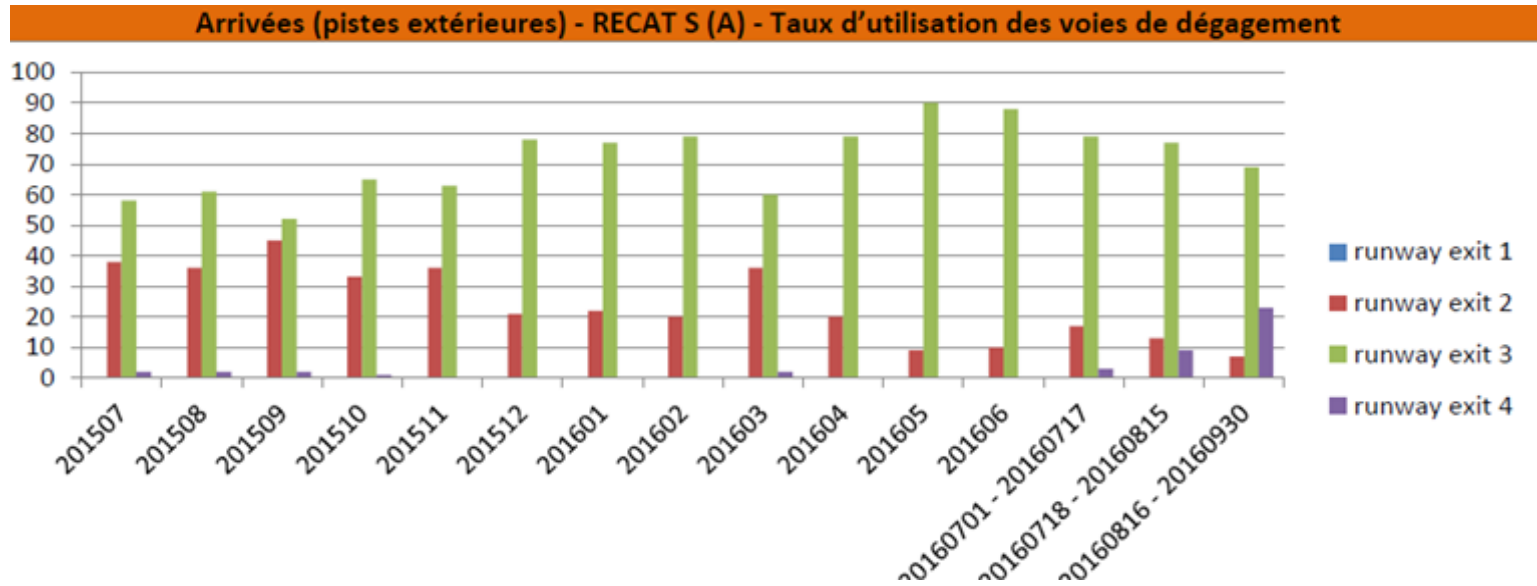
- Runway closure summer 2018 : can this be avoided?

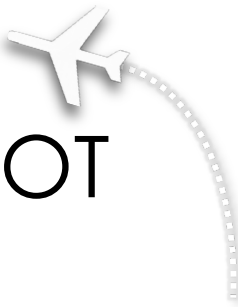




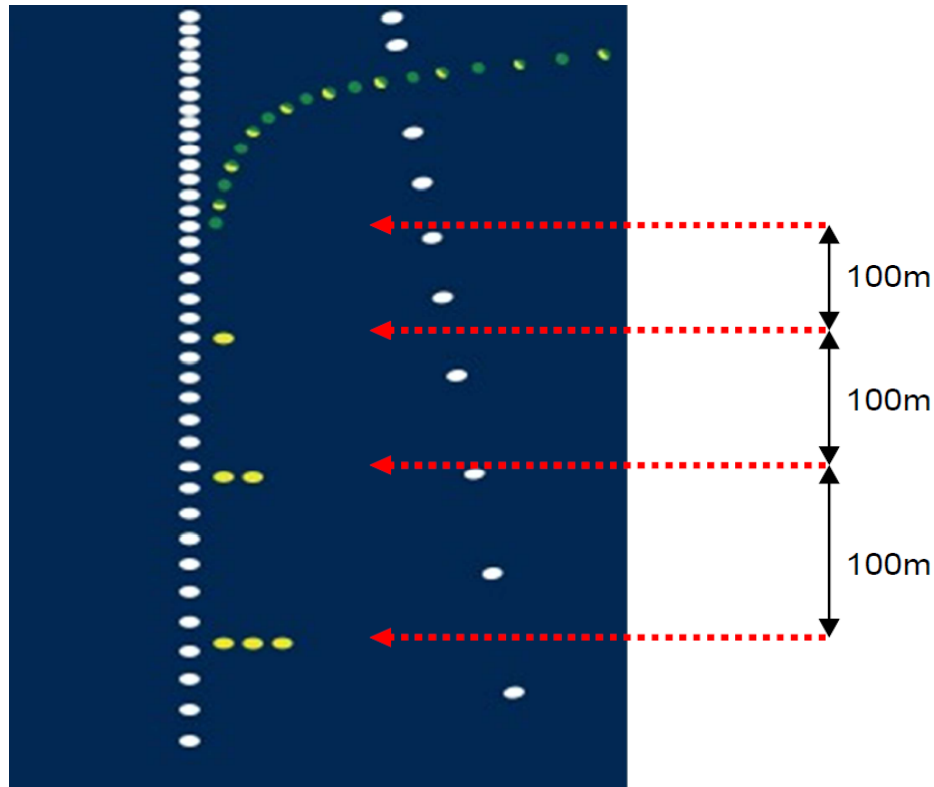
RECAT EU/HIRO/ROT

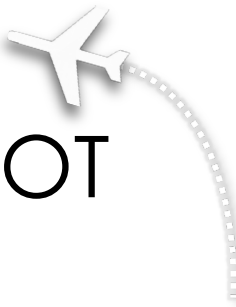
- Runway closure summer 2018 : can this be avoided?





- Runway closure summer 2018 : RETIL on 26R/08L



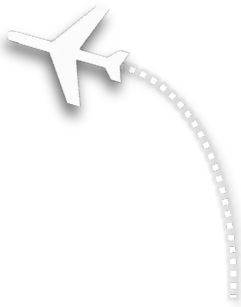


- « We cannot make sure things go right just by preventing them from going wrong. We also need to know how they go right. »
- *From Safety-I To Safety-II : A White Paper*, Eurocontrol, September 2013, disponible sur Skybrary



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GROUPE ADP



- THANK YOU