



DSNA



GROUPE ADP



Cofinancé par l'Union européenne

Le mécanisme pour l'interconnexion en Europe

2017 SAFETY FORUM: PREVENTING RUNWAY COLLISIONS

RWSL@CDG

2017 SAFETY FORUM: RWSL@CDG



RWSL@ CDG

**HISTORY OF RWSL
PURPOSE AND PRINCIPLE
DEPLOYMENT @ CDG
SAFETY RECORD**

◆ History of RWSL

- Developed in cooperation between FAA and MIT Lincoln laboratory
- Tested between 2005 and 2009 in DFW, LAX, SAN
- Evaluated in 2008 by Eurocontrol and CDG Runway Safety Team

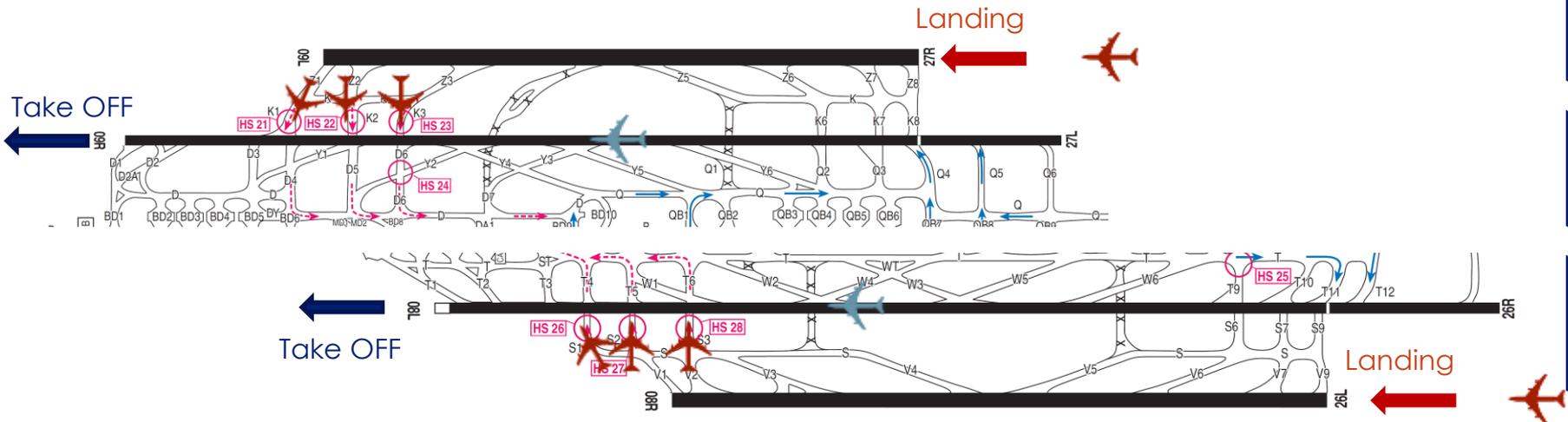


◆ Reasons to develop RWSL

- In 2008, ground situation detection becoming more accurate
- More than 50% of runway incursion are filed as “pilot error”
- Short term alert at destination of main actor to react : pilots
- No system at that time to convey direct alert to pilots

◆ Reasons to deploy RWSL@CDG

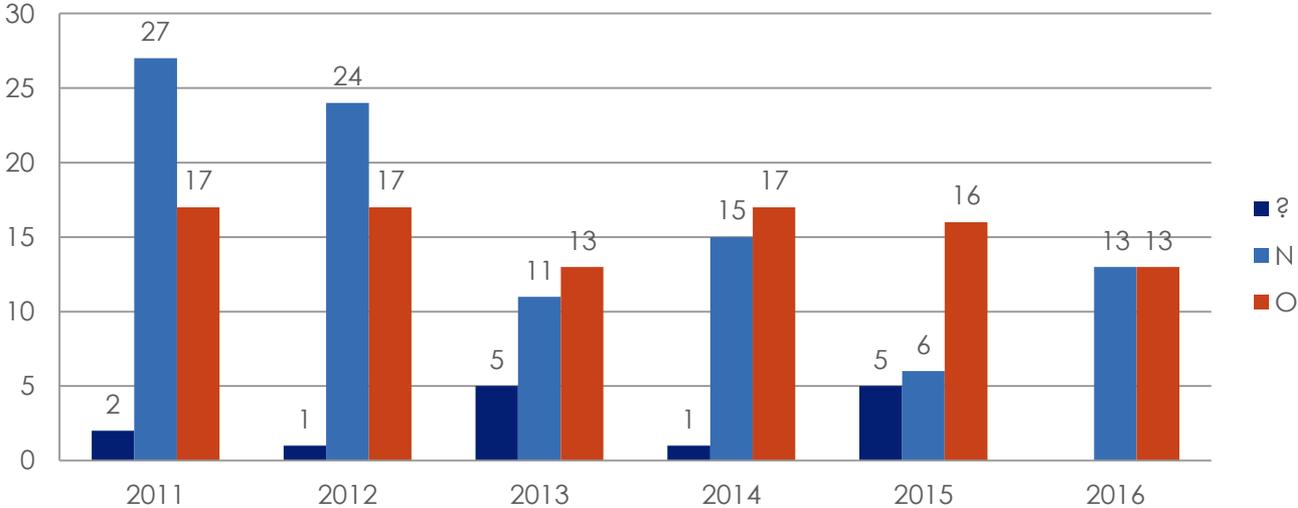
- Two pairs of parallel runways : 700 crossings of inner runways per day



◆ Reasons to deploy RWSL@CDG

- Absolute necessity to develop a mean to reduce and protect runway incursions

CDG potential RWSL impact on incursions during 2011-2016 period



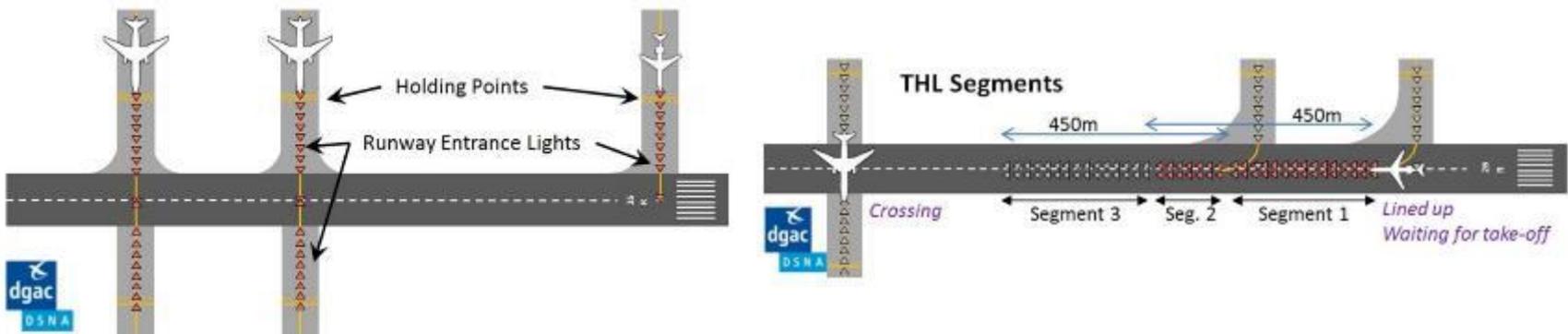
◆ Purpose of RWSL

- Protect inner runway and crossing
- Protect :
 - Aircraft / vehicles waiting for crossing the runway
 - Aircraft waiting for lining up
 - Aircraft lined-up
- Don't protect
 - Aircraft on final (not directly)
 - Runway incursion from high speed turn off taxiway

◆ Principle of RWSL

- Uses primary and secondary surveillance radar
- Conveying information through in-paved red lights :

RELs and THLs



- Fully autonomous and independently of ATCO

◆ Principle of RWSL

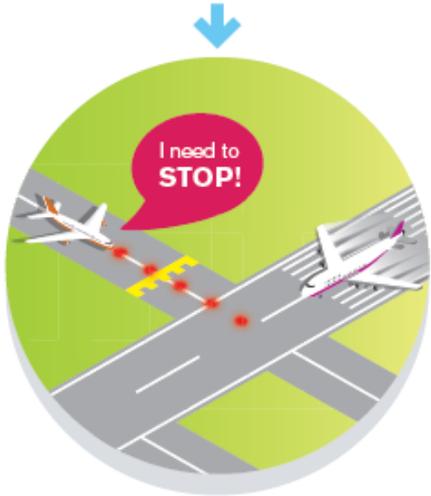
Runway Entrance Lights
Along the taxiway axis

Take off Hold Lights
450m long from each lining up point



◆ Principle for the crew

Runway Entrance Lights (RELs)
Illuminated RELs mean **STOP!**
The runway is unsafe to enter or cross.



Take off Hold Lights (THLs)
Illuminated red THLs mean **STOP!**
The runway is unsafe for take off.



◆ Deployment at CDG

- Runway 09R/27L :
 - In service 24h a day since 28th June 2016

- Runway 08L/26R :
 - In service 24h a day since 3rd March 2017



◆ Safety record

- One runway incursion avoided on 22nd august 2016



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**THANKS FOR YOUR
ATTENTION**

