

Non Compliant Approach – Balancing the risk with SMI

Safety forum: Airborne conflict

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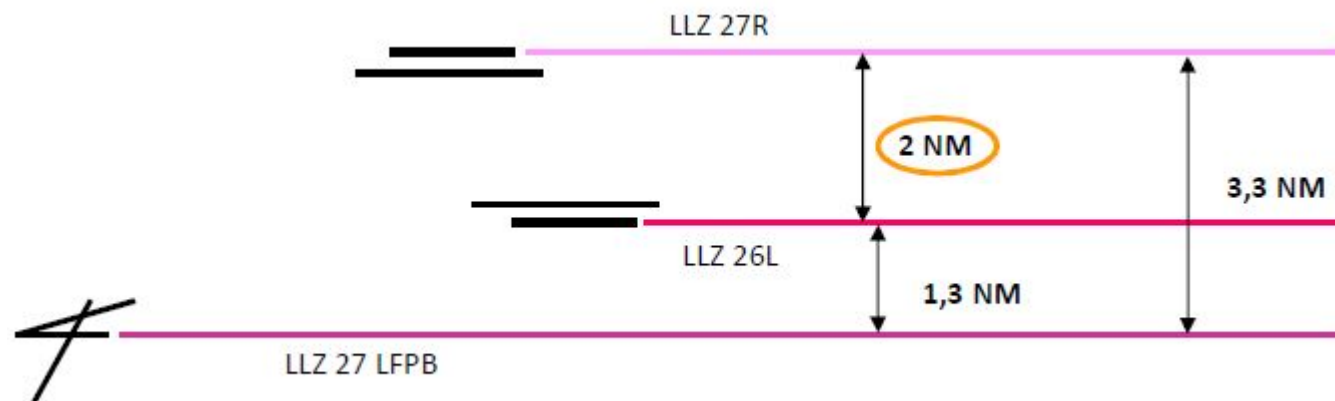


What's the issue?

- Non Compliant approach risks:
 - Can be a precursor to a Non Stabilised Approach
 - A NSA can lead to a go-around and can be a precursor to CFIT or RE
- Project together with National Supervisory Authority to investigate NCAs at CDG airport
 - Objectives:
 - Quantify the number of NCAs
 - Reduce go-around and other NSA associated risks (in line with EAPPRE)
 - Automated tool developped for quantification purposes
 - Based on a set of criteria, defined in coordination with National Supervisory Authority
 - Records & archives data every day (since 2 years now) => ~ 4000 NCAs a month
- Need to act on NCAs at CDG **while balancing the risk with Separation Minima Infringement**

Context (CDG)

- Triple approaches:
 - 2 in CDG + 1 in Le Bourget
 - Distance between the axes is short (2Nm between CDG's arrival runways and 1.3Nm between CDG's southern arrival RWY and RWY27 at Le Bourget)



- any localizer course overshoot could lead to a loss of separation in this simultaneous approaches context
- In order to minimize the risk, different altitudes of interception have been defined for each RWY and different interception marks have been put on controllers' radar screen

FACING EAST

Interception mark at
4000ft if simultaneous

Interception mark at
4000ft if not simultaneous

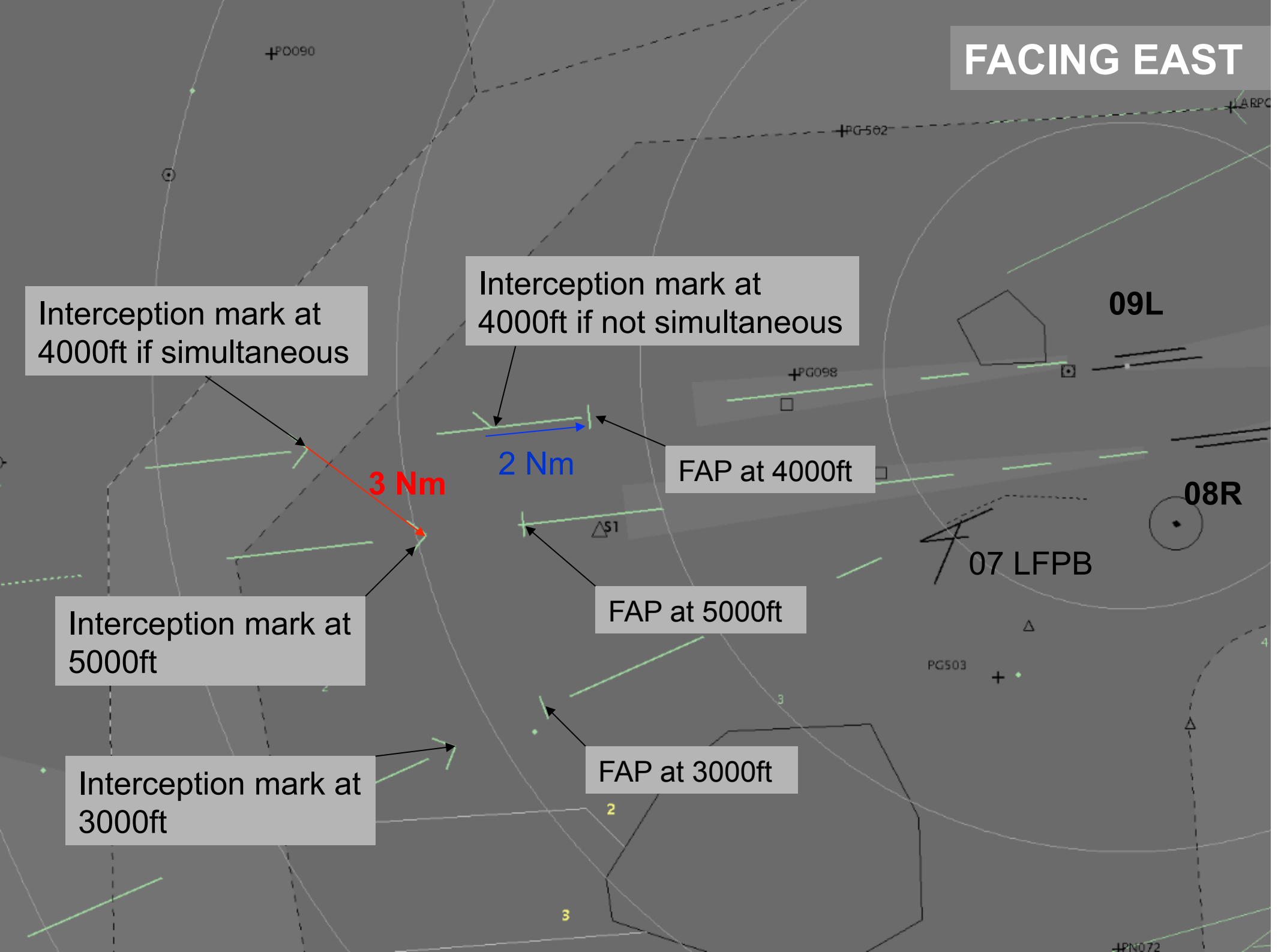
FAP at 4000ft

FAP at 5000ft

Interception mark at
5000ft

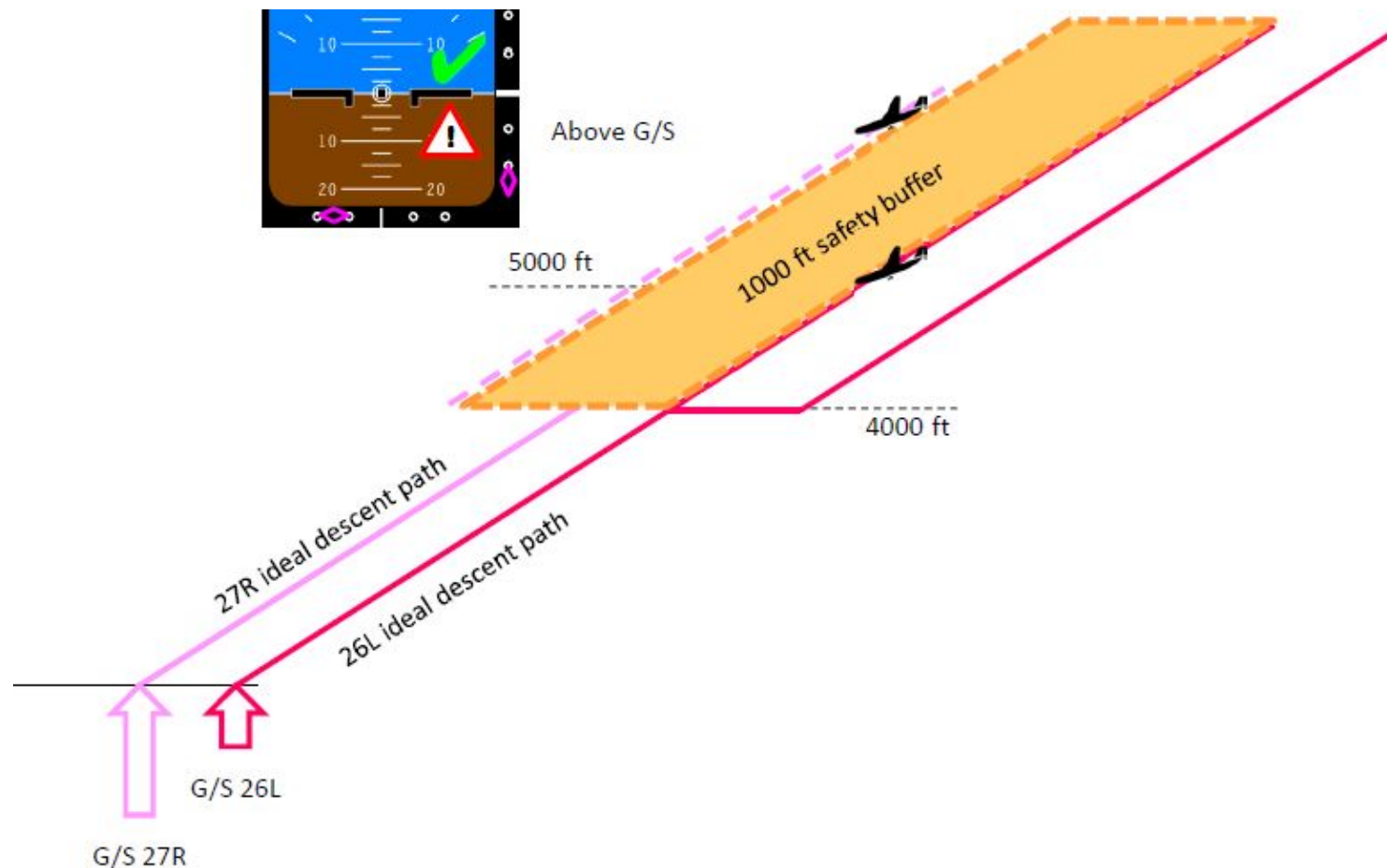
Interception mark at
3000ft

FAP at 3000ft



Context (CDG)

- Important work done by CDG's safety division to decrease the number of loss of separation at interception
- Strong interdependency between loss of separation & NCAs => preventing the latter could degrade the former



Deeper analysis

- Initiative with Eurocontrol
 - Validate the concept of non-compliant approach so that it can be further promoted within the activity of European Action Plan for the Prevention of Runway Excursion (EAPPRE) => subsequent dissemination of findings
 - Reduce risk associated with NCAs at CDG
 - Manage tension between NCA and SMI risks of parallel runway operations
- Review of what is available in ICAO, PANS-OPS, ... regarding Compliant Approach elements
- Need for classification & prioritization
 - Crunch the numbers to investigate distribution of both lateral and vertical non compliance
 - Initial criticality classification: define the most « serious » NCAs

Next steps

- Refine current classification with the help of CDG experts (manual analysis of some NCAs, platform knowledge)
- Further collect, integrate & analyse data for NCAs, NSAs and risks during approach and landing at CDG:
 - Subject experts interviews (controllers, pilots)
 - Correlation with Non Stabilised Approaches
 - Work with aircraft operators => contacts taken with CDG main operators
 - Gather and analyse data related to non stabilised approach flights & deviations recorded during preparation and execution of the approach
- Define means to reduce the threat of NCAs, notably when tension exists between NCAs and separation minima infringement risks of parallel runway operations
 - Tackling the NCA issue should not increase SMI
- Disseminate findings and conclusions

Thank you for your attention



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