

Status of Wake Initiatives for CSPRs in US

WakeNet Europe

Brussels, BE

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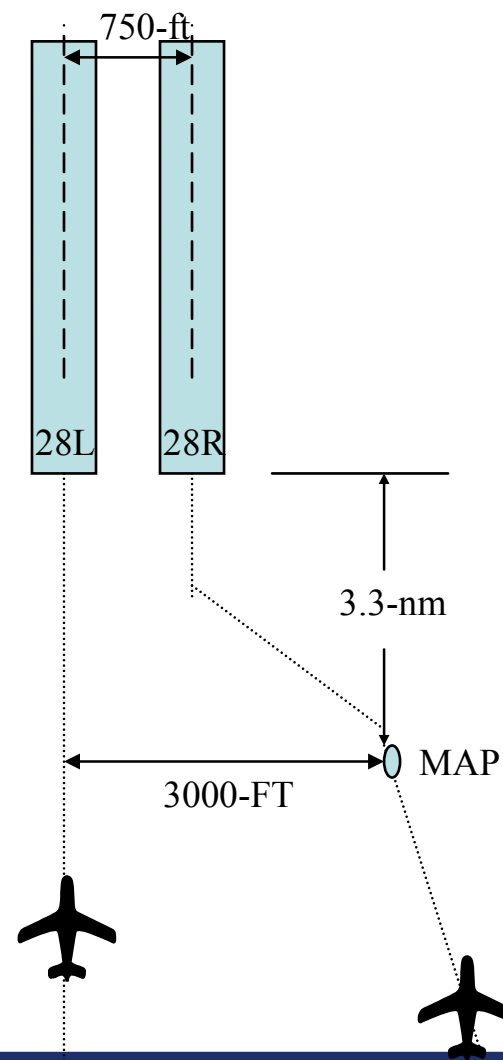
Date: February 2007



Simultaneous Offset Instrument Approach (SOIA)



Two 767's on approach



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National SOIA Order 8260.49

August 23, 2002

- **Prescribes design constraints, crosswind constraints, etc based on runway centerline separation**
- **Wake Turbulence Requirements**
 - When SOIA runways are at least 2,500' apart or ceilings ≥ 500 ft above Minimum Vectoring Altitude (MVA) there are no wake turbulence requirements.
 - Otherwise wake vortex spacing as described in Order 7110.65, paragraph 5-5-4, MINIMA, must be applied, unless:
 - Mitigating techniques and operational procedures can be developed and verified by a Flight Standards safety assessment.
 - Mitigation techniques employed will be based on each airport's specific runway geometry and meteorology conditions.



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SOIA Implementations

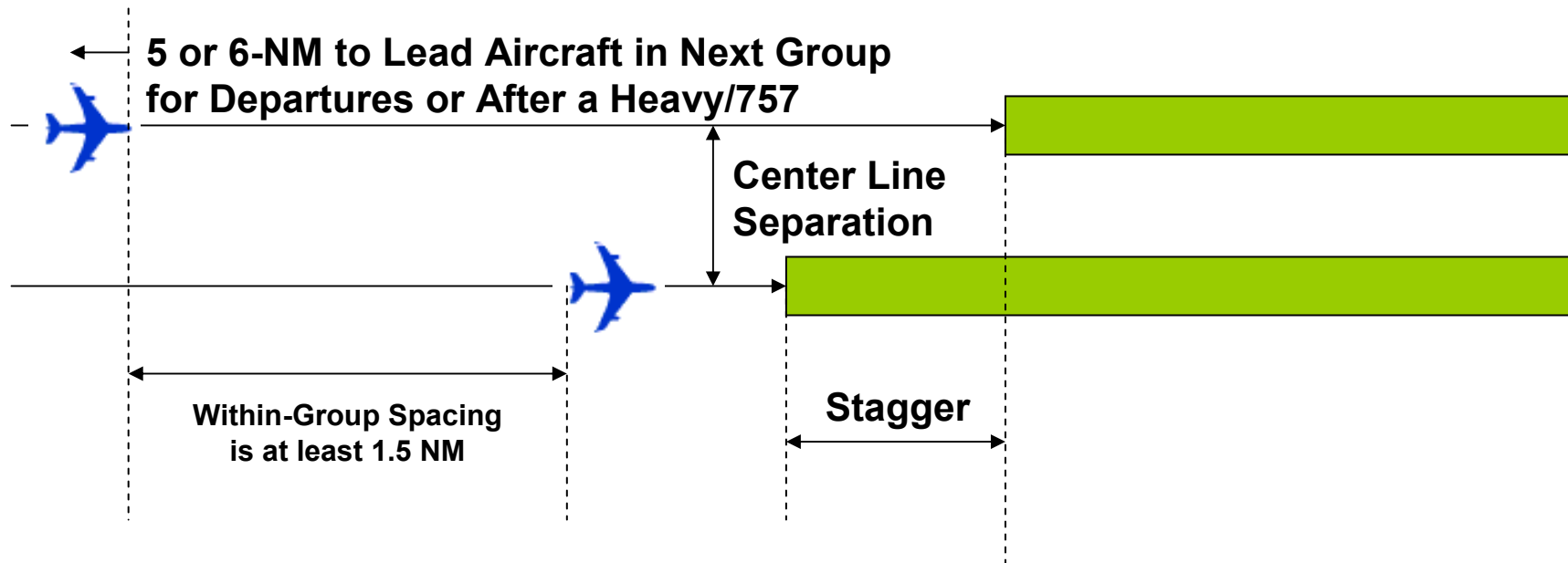
- **SFO 28 L/R**
 - Represents arrival configuration used 90%+ of time, so no plans for 10L/R
 - AFS found no wake dependency for L or S leading
 - 1 NM pairing window required for H or B757 leading (could vary by crosswind)
 - ATO Terminal is investigating potential requirement for controller DST to assist with maintaining pairing window
- **STL 30L/R**
 - Wake analysis found no additional wake risk mitigations necessary
 - 12's end uses LDA
- **CLE 6L/R**
 - Wake analysis found no additional wake risk mitigations necessary
 - 24L/R pending risk mitigation



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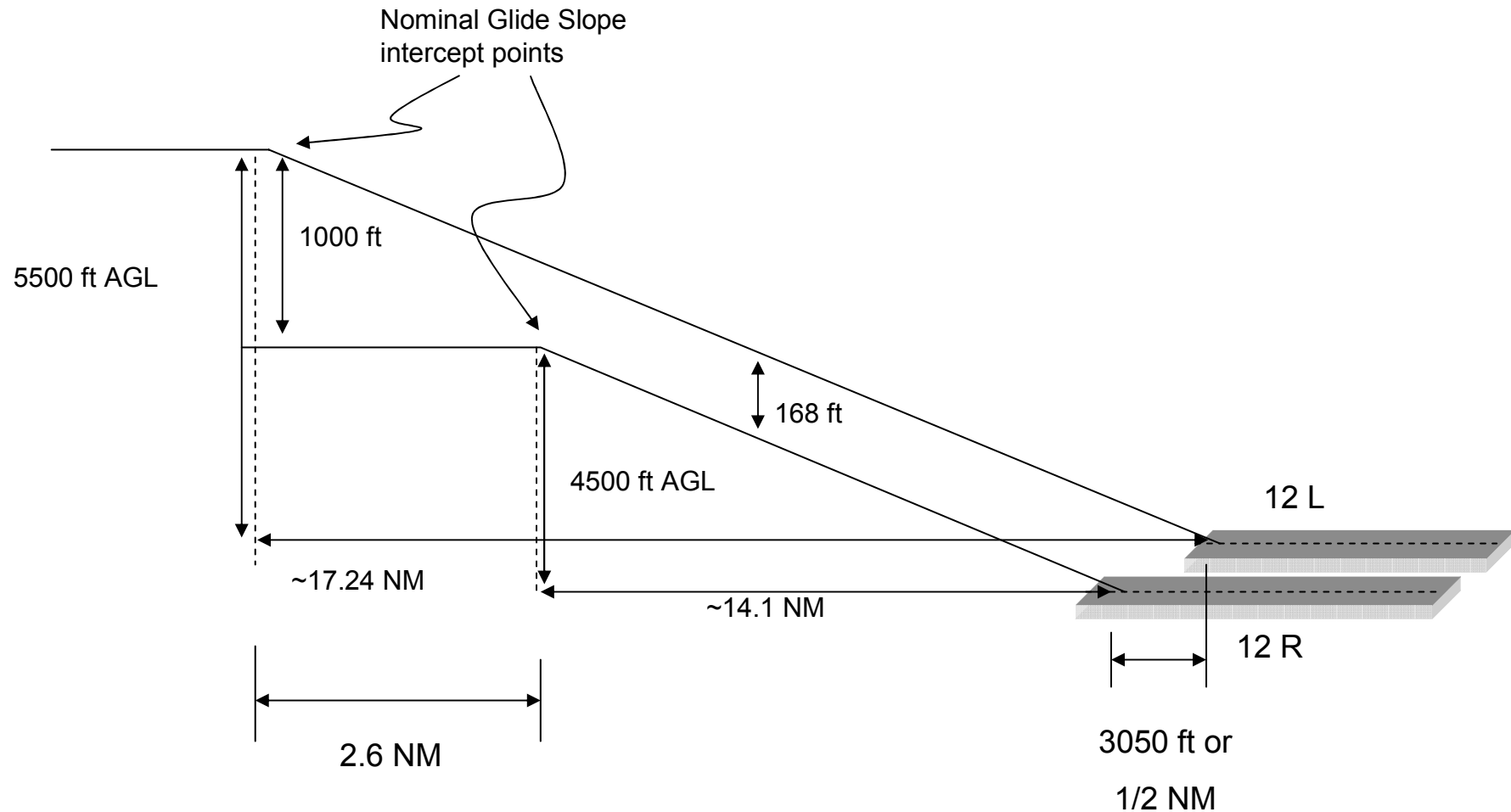
STL Waiver Procedure

Dependent ILS Approaches to CSPR



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Side (Oblique) View of STL Geometry



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Risk Matrix for STL Waiver

Severity Likelihood	No Safety Effect 5	Minor 4	Major 3	Hazardous 2	Catastrophic 1
Frequent A					
Probable B	2, 3, 4, 7, DFS-25				
Remote C		1, 5			
Extremely Remote D			8, 14, 16, 17		
Extremely Improbable E	13			9, 15	*

* Unacceptable with Single Point and Common Cause Failures

High Risk
Medium Risk
Low Risk

Ref: FAA SMS Manual Version 1.1



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National Rule Change Status

- **Beginning extensibility analysis for other airports that fall into the same rough runway CL separation, displaced threshold**
 - BOS 4L/R 1500 ft CL and 990 ft threshold displacement
 - CLE 24L/R 1241 ft and 2100 ft
 - PHL 27L/R 1400 ft and 4800 ft
- **Targeting FY08 for national change**



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Airport Diagrams



Acrobat Document

BOS



Acrobat Document

CLE



Acrobat Document

PHL



Acrobat Document

STL



Acrobat Document

SEA



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