



Mid-Term Solutions

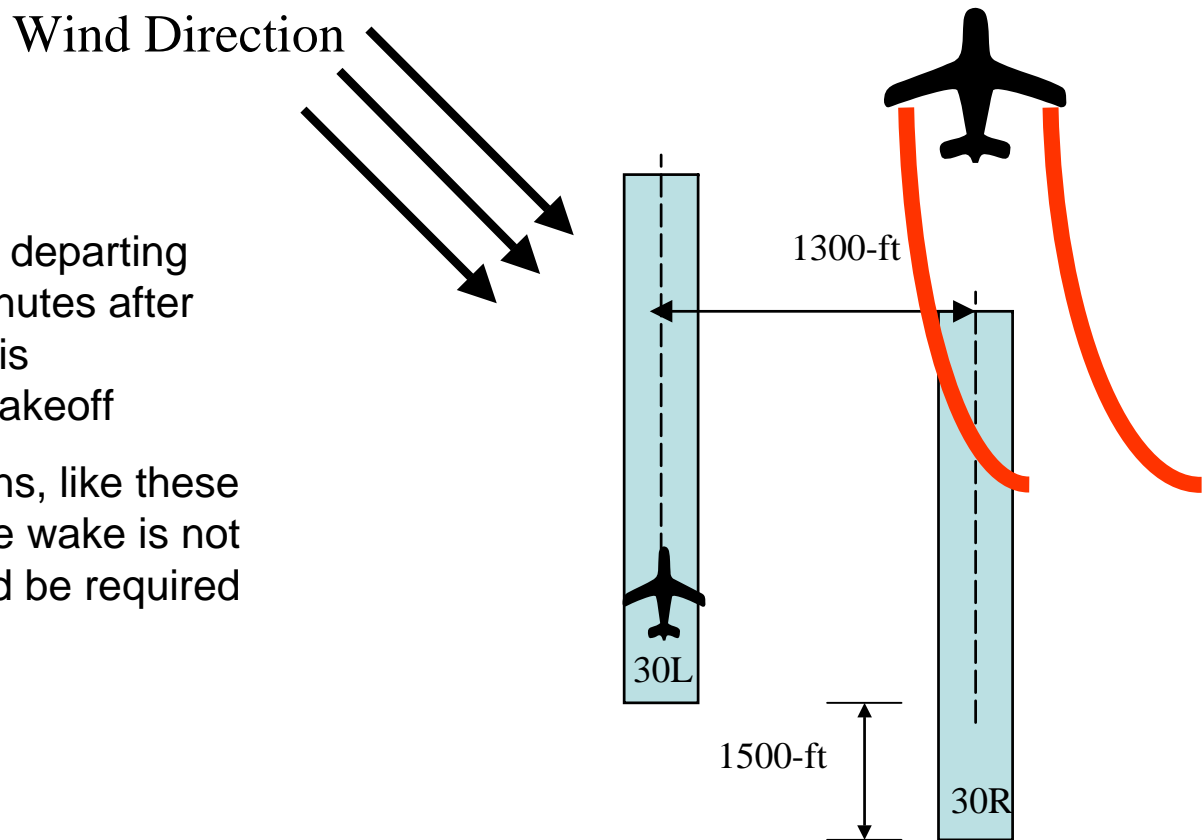
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Quick Overview of Mid-Term Objective: CSPR Departures

STL Example

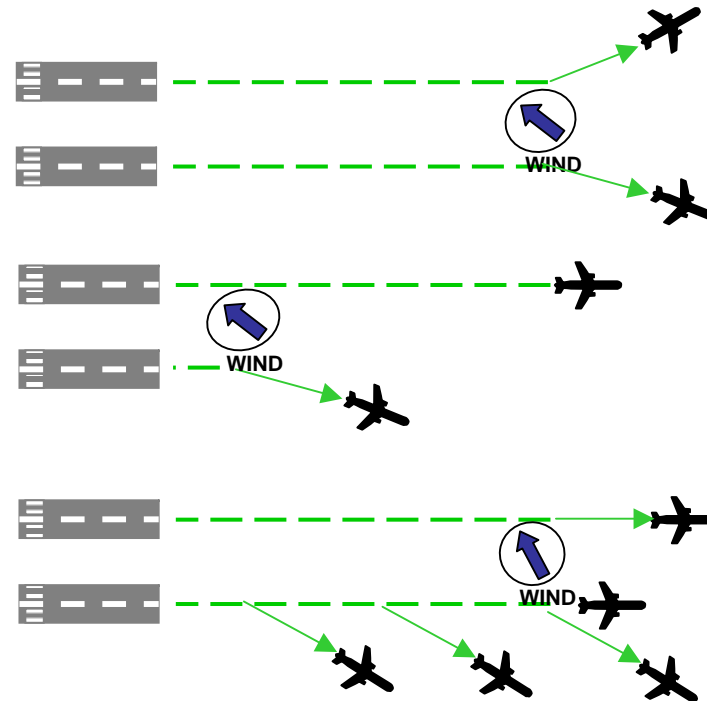
Under current rules a Large departing 30L has a delay of three minutes after Heavy departs 30R since it is considered an intersection takeoff

Under certain wind conditions, like these depicted in this situation, the wake is not a factor and no delay should be required



Conops Team Departure Options

- Both runways depart straight-out to 5 nmi
- Downwind runway departs straight-out, upwind runway departure diverges upwind at 1 nmi
- Downwind runway departs straight-out, upwind runway has multiple points where departures can diverge upwind



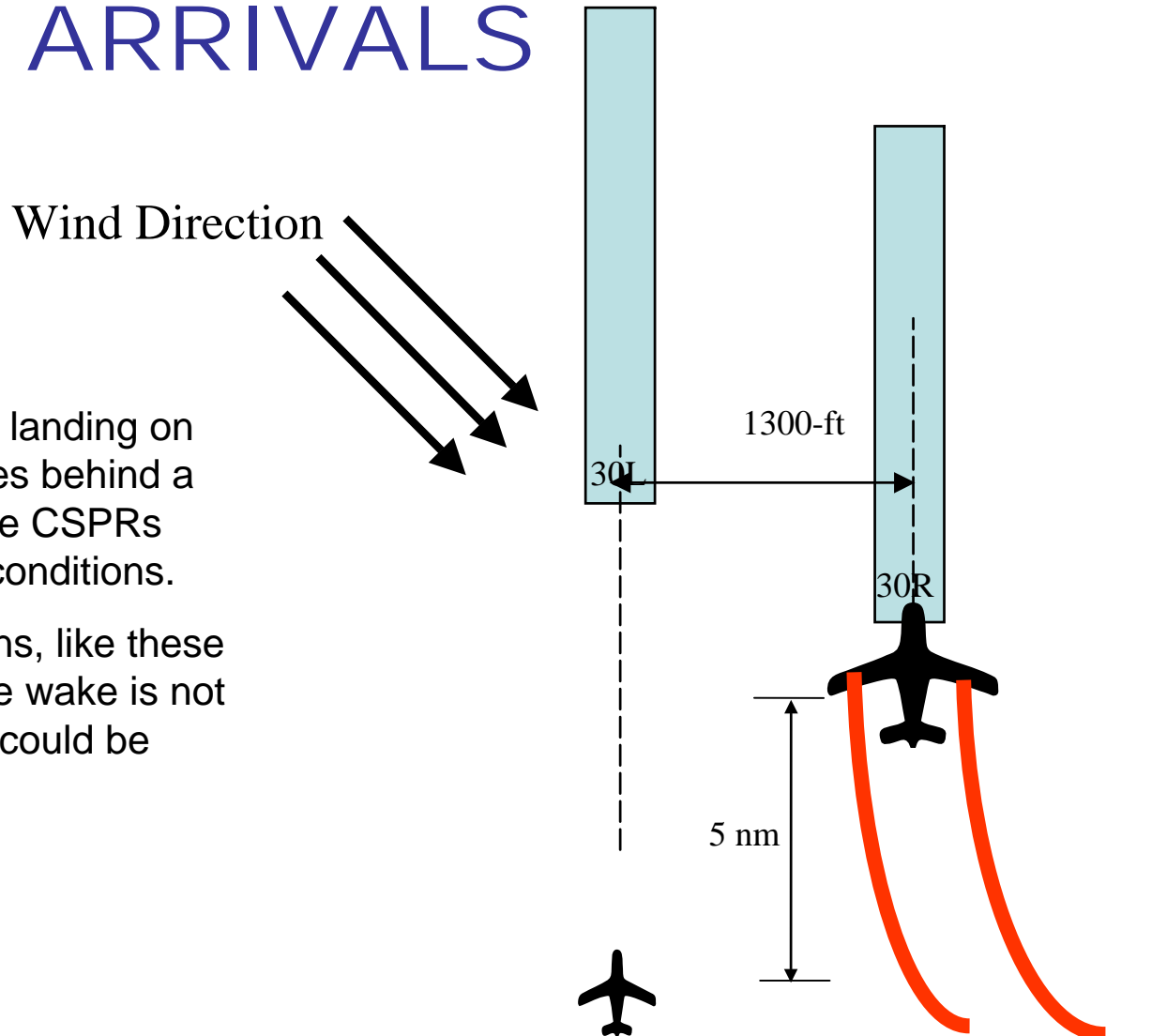
- Upwind runway wake-free relative to departures from downwind runway
- Same runway wake sep applied on both runways in options 1 and 2
- Option 3 also reduces same runway wake sep on upwind for diverging departures
- Similar geometries proposed by CET for single runway departures

Mid-Term Objective: CSPR ARRIVALS

STL Example

Under current rules a Large landing on 30L has to be spaced 5 miles behind a Heavy arriving 30R since the CSPRs are a single runway in IFR conditions.

Under certain wind conditions, like these depicted in this situation, the wake is not a factor and closer spacing could be allowed



NASA Program Schedule

Task	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Concept of Operational Enhancement development and program initiation	█					
Wind Dependent prototype development and demonstration planning		█				
Wind Dependent prototype installation and shadow mode use			█	█		
Wake Dependent enhancement to prototype development and demonstration planning				█		
Wake dependent enhancement installation and shadow mode use					█	█

F&E Program Schedule

Task	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Validate “use of wind information to determine wake separation” will be operationally acceptable	■					
Prepare acquisition documentation for Wake ATC DST Infrastructure enhancement to the NAS	■					
JRC-2B Decision		●				
System Integration engineering – incorporating NASA prototype into Terminal Automation platform(s)		■				
Develop modifications to FAA systems – procure additional sensors (if required)			■	■	■	■
Operational use/benefit from ATC Wake Separation DSTs						■