SE 219 – RE Air Traffic Operations Policies, Procedures and Training to Prevent Runway Excursions

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RASG-PA Runway Excursion Prevention Seminar

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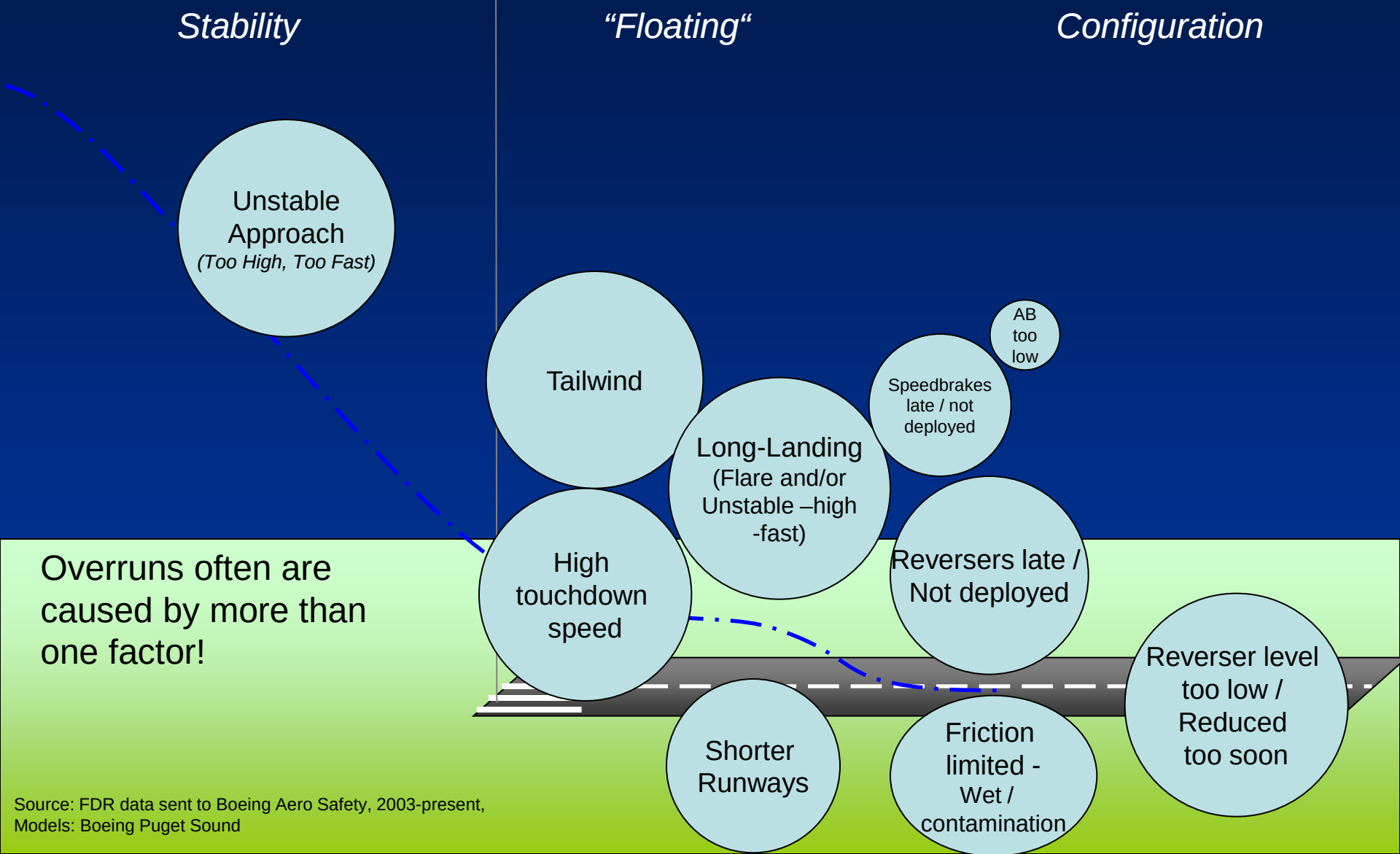
CAST RE Study

Landing Overrun Factors

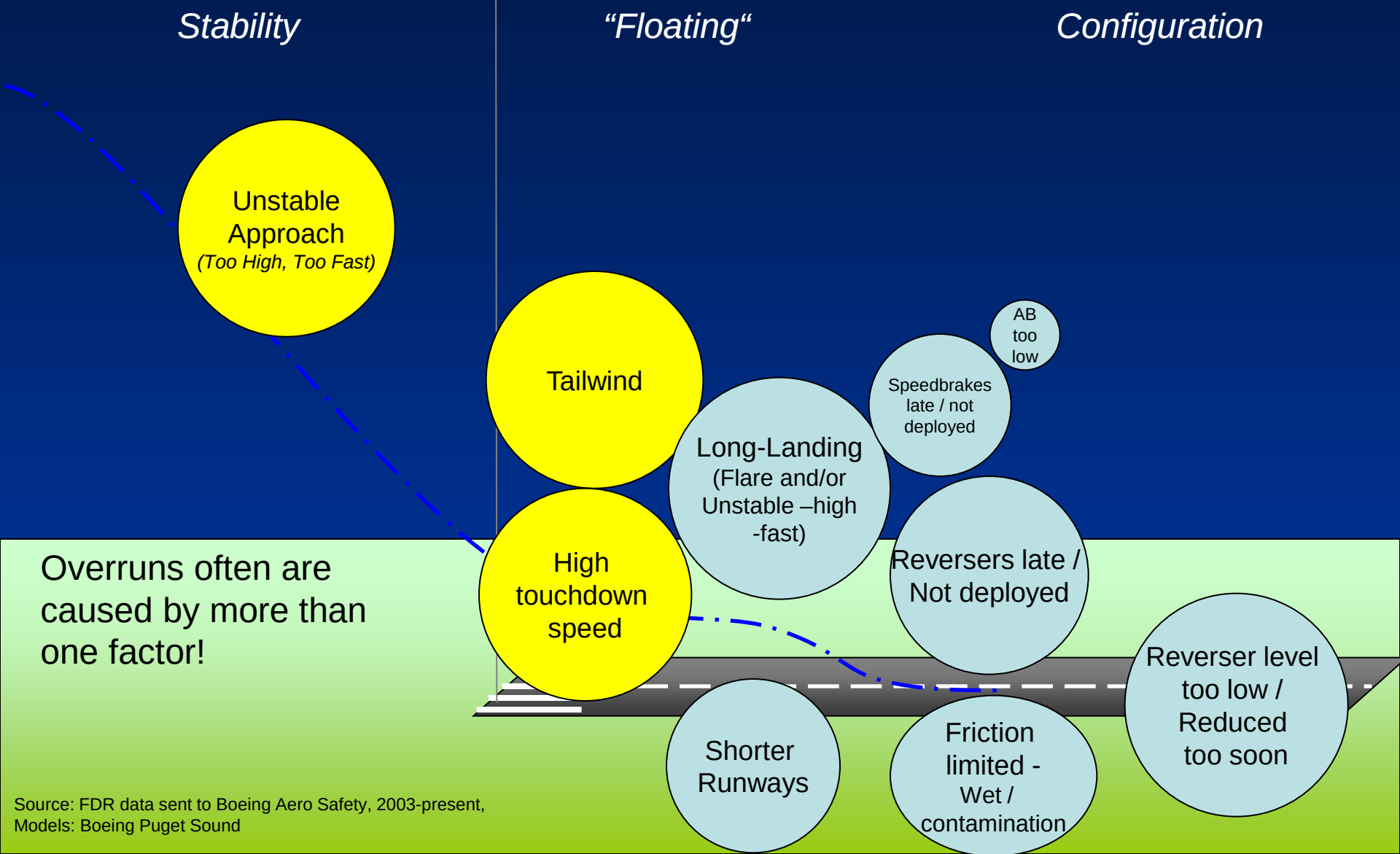


Overruns often are caused by more than one factor!

Source: FDR data sent to Boeing Aero Safety, 2003-present,
Models: Boeing Puget Sound

CAST RE Study

Landing Overrun Factors



Source: FDR data sent to Boeing Aero Safety, 2003-present,
Models: Boeing Puget Sound

Recommended Safety Enhancements

SE 219 Air Traffic and Airport Operations Procedures

- **Changes to ATC Procedures**
  - **Runway selection and arrival/departure configuration based on tailwind levels**
  - **Reporting of most adverse wind on arrival or departure runway**

- **Training for controllers on factors that contribute to RE**

SE 219 – RE Air Traffic Operations
Policies, Procedures and Training to Prevent Runway Excursions

Safety Enhancement Action

Modified air traffic control and air carrier policies, procedures, and training related to factors that contribute to the risk of runway excursions.

OP	Description	Lead Org	Cost ($M)	Time (months)
1	Revised ATO procedures for changing airport arrival configuration based on wind conditions.	FAA ATO	$0.1	12
2	Revised ATO procedures for air traffic controller reporting of wind conditions	FAA ATO	$0.6	36
3	FAA ATO training provided to air traffic controllers on the contribution of adverse winds, runway surface conditions, and unstable approach on the risk of runway excursion.	FAA ATO	$1.1	30
4	Air carrier policies reinforce a culture for flight crews to declare "unable" to ATC clearances that, in the opinion of the flight crew, could lead to an unstable approach	Ind Assoc	$0.6	12
Total			**$2.4**	**36**

Worldwide web: http://www.skybrary.aero/index.php/Category:CAST_SE_Plan

Landing Excursion Mitigation – Part 121 Fleet

Overall Awareness of RE Landing RISK in Policies and Procedures
(Regulators, Air Traffic Control, Airports, Operators, Manufacturers)

SE 219

Landing Distance Assessment

Enhance approach and landing stability, flare and touchdown: ATC and Crew Training

SE 219

Timely and accurate field condition reports (winds and runway surface conditions) & ATC tailwind limits

SE 219

Enhance Crews Situational Awareness of Airplane Position and Stopping Performance on Runway

– Distance to go signs

Crews knowledge and use of airplane stopping devices

Airplane systems that enhance the flight crews ability to land and stop the airplane: (e.g., unstabilized approach alerts, flare guidance, deceleration guidance, and features that enhance the crews situational awareness of the airplanes position on the runway;

Systems that quantify braking performance on slippery runways.

Field Conditions and Reporting, RSA

Takeoff Excursion Mitigation – Part 121 Fleet

Overall Awareness of RE Takeoff RISK in Policies and Procedures
(Air Traffic Control, Operators)

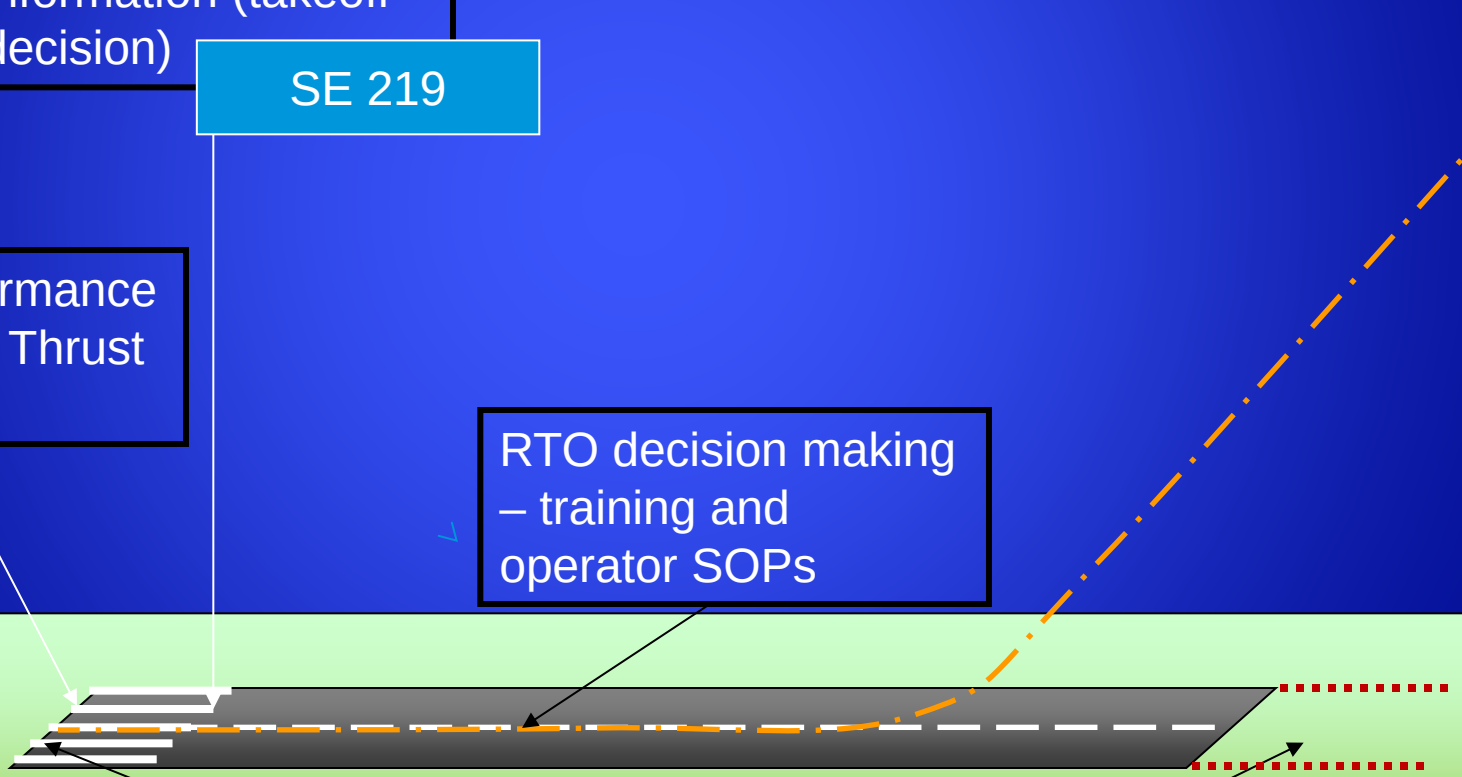
SE 219

Timely and accurate wind and runway information (takeoff decision)

SE 219

Takeoff Performance Planning and Thrust Setting

RTO decision making – training and operator SOPs



Field Conditions and Reporting, RSA

Thank You