



Go-Around Decision-Making and Execution Project

What is the issue?

Runway Excursions

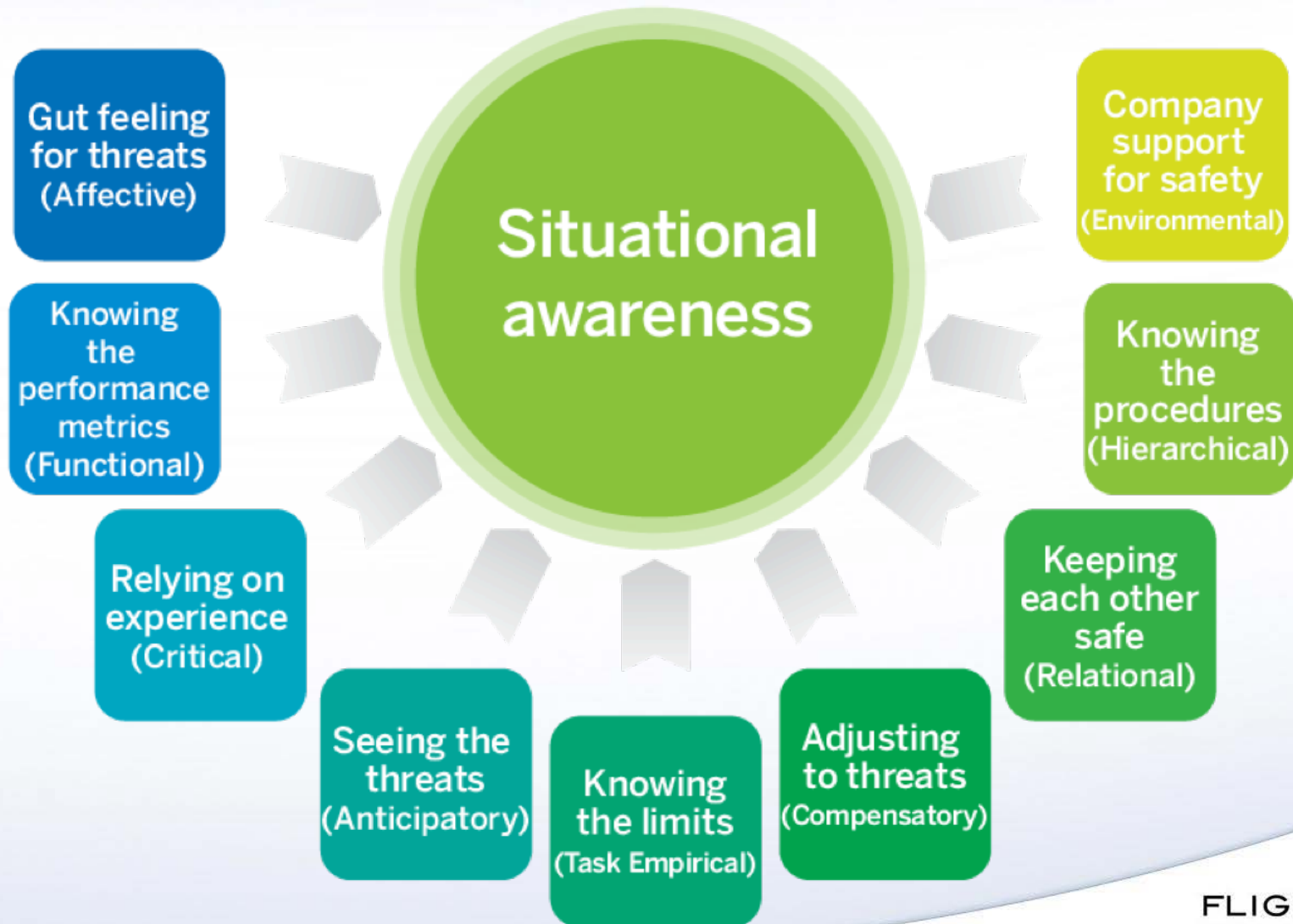
52%

Follow Stable Approaches

48%

Follow Unstable Approaches

Situational awareness



Policy

Effective Go Around Policy

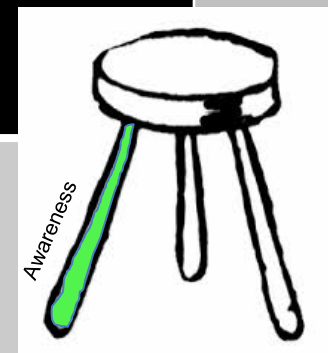
Awareness
Flight Crews



Manage the Policy
Managers

Policy
Believed In

Pre Descent Approach and Landing, and Pre Approach Briefing Guidance Additions



Periodically (e.g. bi-monthly) the briefing should include overall ALA statistics;

- Industry ALA Statistics
 - ALA accidents make up approximately 65% of all accidents
 - Approximately only 3% of unstable approaches result in a go-around
 - More than 50% of runway excursions follow a stable approach
- Industry RE Statistics
 - 53% Veer Offs: 66% follow Stable approaches
 - [wind 40%] [cont. 39%],
 - 47% Overruns: 63% follow Unstable approaches
- Landing Distance Increase Rules of Thumb;
 - 250 feet/sec of floating
 - 300 feet/10 kts excess speed from V_{ref} – dry runway
 - 500 feet/10 kts excess speed from V_{ref} – wet runway
 - 200 feet/10 feet excess above 50 feet over threshold.

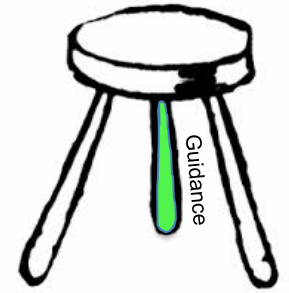
Pre TOD Briefing should include;

- Environmental ALA threats; contamination, crosswinds, tailwinds
- Go-around readiness; in addition to a normal go-around briefing heightened readiness should be discussed in the event of poor environmental conditions

Pre Approach Briefing;

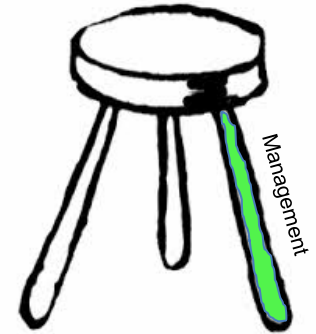
- conduct a brief recap of current environmental threats, go-around readiness, and any adjustments to go-around policy procedures.

Guidance



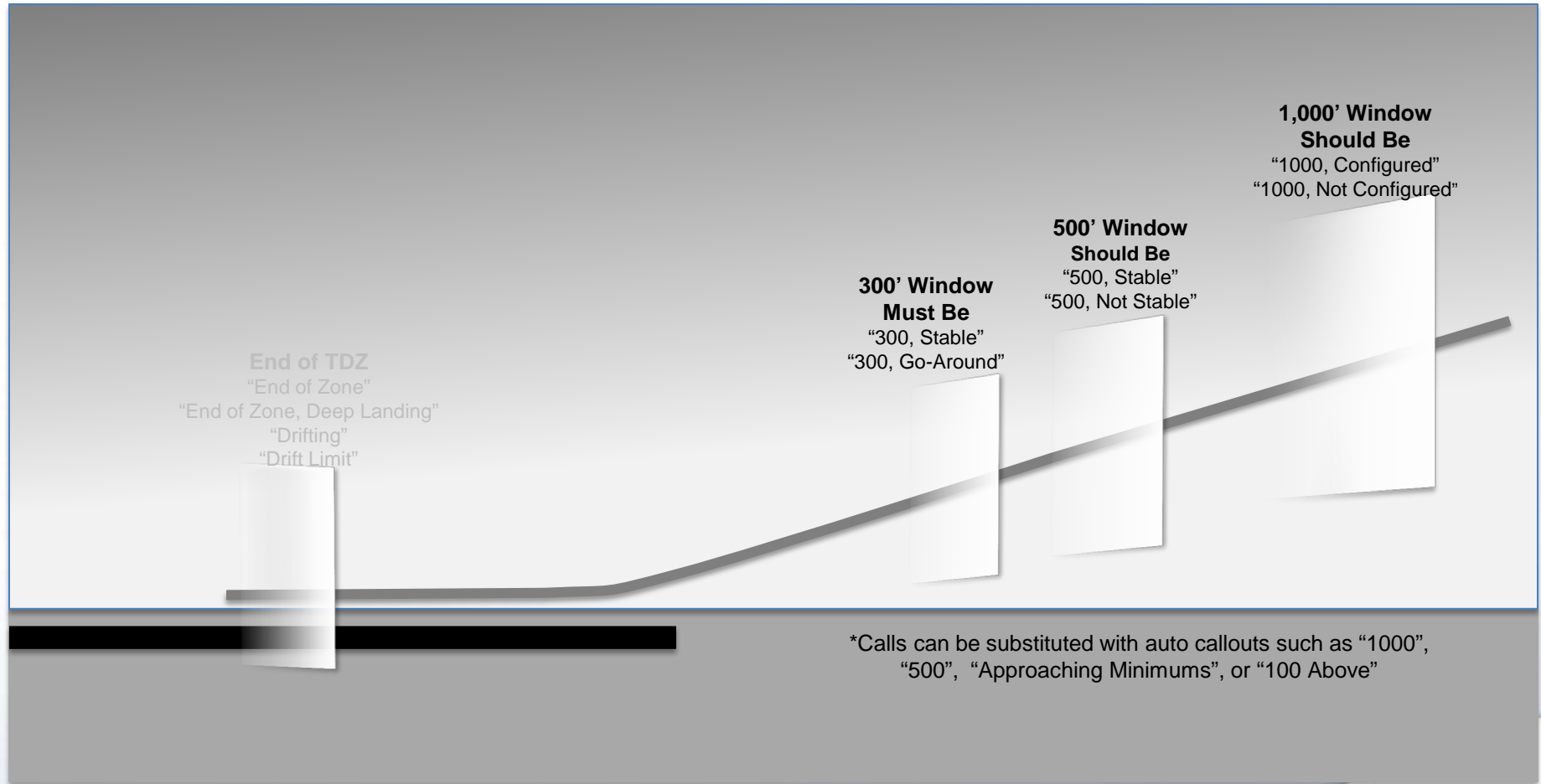
- Redefine Approach Go-Around criteria
 - Better match pilot & management views
 - Closer to SAM Systems
 - Safe
 - Distinguished from Stable Approach Objective
 - Include Active Communications
- Enhance Landing Go-Around criteria
 - Include Active communications

Management - process

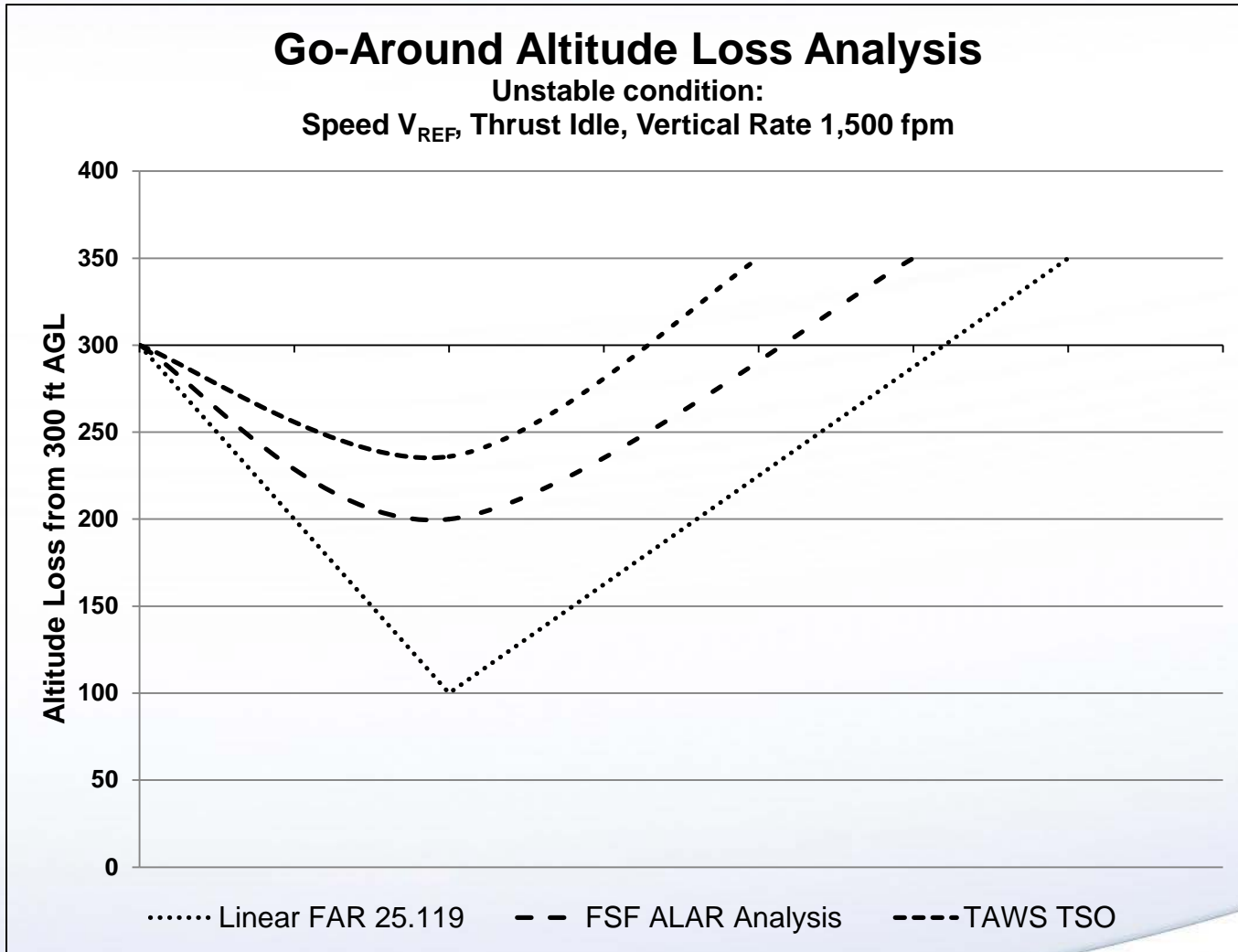


- Active oversight by one airline (June 2013 to May 2015)
 - Increase go-around non-compliance awareness
 - Set go-around compliance rate targets
 - Investigate all unstable approaches and landings that continue

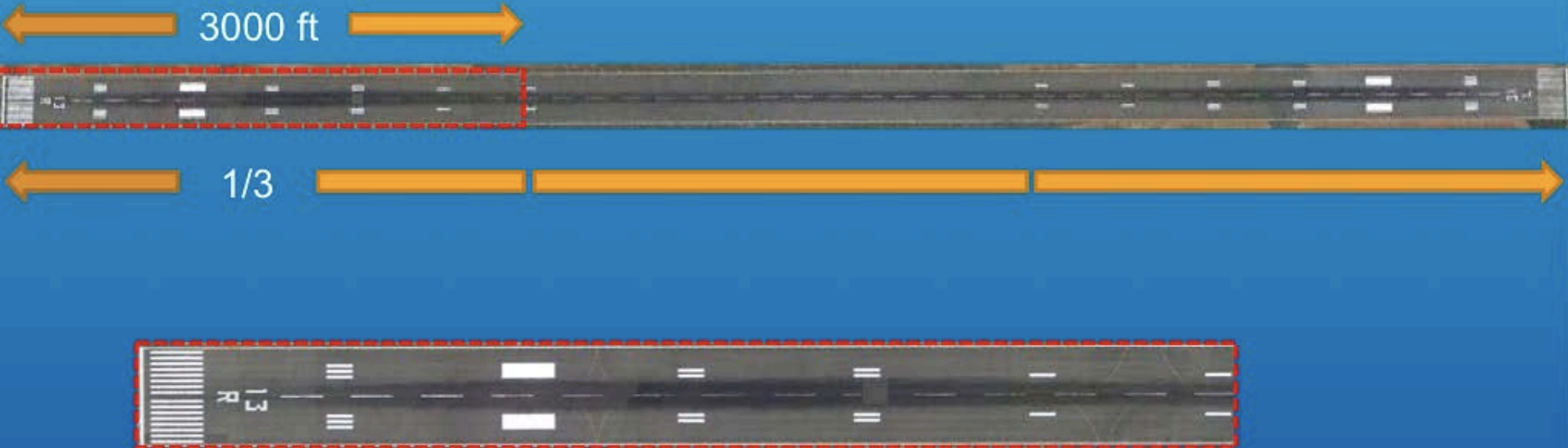
Stable approach and go-around elements



Safe



Landing Guidelines



Stephens-Smith, *Anatomy of an Overrun*, IASS 2012, ppt 26

FSF Safe Landing Guidelines

For the purpose of these guidelines the landing begins at the threshold to the aircraft reaches taxi speed.

1. Fly a stabilized approach.
2. Height at threshold crossing is 50 ft., if greater than 50 feet by approach profile design, additions should be made to the actual landing distance required
3. Speed at threshold crossing is not more than $V_{REF} + 10$ kt indicated airspeed and not less than V_{REF} .
4. Tail wind is no more than 10 kt for a non-contaminated runway, no more than 0 kt for a contaminated runway.
5. Touch down just beyond the touchdown aim point following a normal flare, and not beyond the touch down zone (TDZ). If not touched down within the TDZ (or revised touchdown limit point) - go-around.
6. Touchdown on the runway centerline with the main landing gear on both sides of (straddling) the runway centerline. If all main landing gear are on one side of the centerline – go-around
7. After touchdown, promptly transition to the desired deceleration configuration:
 - Brakes
 - Spoilers/speed brakes
 - Thrust reversers or equivalent (e.g., lift dump)

Note: Once thrust reversers have been activated, a go-around is no longer an option.
8. Speed is less than 80 kt with 2,000 ft of runway remaining.

Stable approach and go-around elements

End of TDZ
"End of Zone"
"End of Zone, Deep Landing"
"Drifting"
"Drift Limit"

**300' Window
Must Be**
"300, Stable"
"300, Go-Around"

**500' Window
Should Be**
"500, Stable"
"500, Not Stable"

**1,000' Window
Should Be**
"1000, Configured"
"1000, Not Configured"

*Calls can be substituted with auto callouts such as "1000",
"500", "Approaching Minimums", or "100 Above"

Training on Go Arouns

- Go arounds are not without risk
- CAST SE-198 is considered complimentary with the FSF Go Around Study findings and recommendations

“There is no other single decision that can have as much impact on accident reduction today as the decision to go-around”



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