



COMMERCIAL AVIATION SAFETY TEAM (CAST) SAFETY ENHANCEMENT (SE)

RASG-PA Runway Excursion Prevention Seminar

Lima, Peru

9-10 October 2014

COMMERCIAL AVIATION SAFETY TEAM (CAST)

- The Commercial Aviation Safety Team is a cooperative government-industry initiative founded in 1998 with a goal to reduce the commercial aviation fatality rate in the United States by 80 percent by 2008.
- By 2008 CAST was able to report that by implementing the most promising safety enhancements, the fatality rate of commercial air travel in the United States was reduced by 83 percent.
- <http://www.cast-safety.org/>

SAFETY ENHANCEMENTS (SE)

- SE 215 – Landing Distance Assessment
- SE 198 – Scenario Based Training for Go-Around Maneuvers
- SE 216 – Flight Crew Landing Training
- SE 217 – Takeoff Procedures and Training
- http://www.skybrary.aero/index.php/Portal:CAST_SE_Plan

LANDING DISTANCE ASSESSMENT (SE 215)

Action: Flight crews assess landing performance based on conditions actually existing at the time of arrival.

Statement of Work: To improve flight crew awareness of their landing distance margin and factors / variables that can affect it.

Completion Date: October 2016

LANDING DISTANCE ASSESSMENT (SE 215) - OUTPUTS

- FAA/AFS - guidance for incorporating TALPA/ARC recommendations for landing distance assessment using standardize terms.
- FAA/ARP – define terms and format for reporting runway conditions
- FAA/AIR – guidance for manufacturers provide landing distance data consistent with TALPA/ARC
- FAA/ATO – allow controllers to report timely runway conditions
- Airport operators incorporate new terminology into runway assessment procedures
- Manufacturers provide standardized landing distance data
- Air carriers incorporate guidance and data into SOP and training

SCENARIO BASED TRAINING FOR GO-AROUND MANEUVERS (SE 198)

- **Action:** Air carriers conduct effective, scenario based go-around training that matches realistic situations
- **Statement of Work:** CAST study of loss-of-control incidents showed that go-arounds, in some situations, contributed to flight crew loss of airplane state awareness (ASA)
- **Completion Date:** February 2017

SCENARIO BASED TRAINING FOR GO-AROUND MANEUVERS (SE 198) - OUTPUTS

- FAA publish guidance material addressing scenario-based go-around training
- Air carrier policies, procedures and training are modified to incorporate FAA guidance

FLIGHT CREW LANDING TRAINING (SE 216)

Action: Air carriers define, publish, and train proper techniques for stabilized approach, flare, touchdown, and use of available airplane stopping devices during landing, with emphasis on realistic scenarios that contribute to runway excursions.

Statement of Work: To reduce runway excursions...

Completion Date: December 2018

FLIGHT CREW LANDING TRAINING (SE 216) - OUTPUTS

- Air carriers define, publish, and train proper techniques for stabilized approach, flare, touchdown, and use of available airplane stopping devices for landing scenarios with reduced or minimal landing distance margin.
- Air carriers define, publish, and train proper techniques for stabilized approach, flare, touchdown, and use of available airplane stopping devices for landing scenarios in conditions conducive to directional control issues.

TAKEOFF PROCEDURES AND TRAINING (SE 217)

Action: Improve takeoff safety through revised procedures and training for takeoff planning and rejected takeoff (RTO) decision making.

Statement of Work: To reduce runway excursions...

Completion Date: December 2018

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TAKEOFF PROCEDURES AND TRAINING (SE 217) - OUTPUTS

- FAA publish guidance on formal processes that ensure accurate takeoff performance data, specifically considering inclusion of the following:
 - ✓ Emphasize timely communication and coordination of accurate takeoff weight and balance information
 - ✓ Software “flags” to alert dispatch of aircraft to gross data entry errors
 - ✓ Importance for both flight crew members to cross-check takeoff performance data and/or calculations
 - ✓ Provide guidance on training for hazards/risks of incorrect data entry
 - ✓ Timely processing and communication of late changes to passenger/cargo loads, weather and runway conditions, departure runway or clearance, etc.
 - ✓ Address both “paper” information and electronically transmitted information
- Air carriers modify standard operating procedures and training to ensure accurate takeoff performance data according to FAA guidance
- Air carriers define and standardize procedures and training for the rejected takeoff (RTO) decision utilizing guidance as recommended in the 2005 revision of the *Takeoff Safety Training Aid*.