

## SECTION I: SE OVERVIEW

Study Topic  
Overview  
Summary

Because approach and landing represent the most common phases of flight for aircraft accidents in the National Airspace System (NAS), the go-around serves as a primary risk mitigation tool for pilots and controllers when conditions call for approach termination or suggest the risks of continuing an approach are unacceptably high. Controllers may also call for a go-around for traffic separation or to change runways because of wind conditions. Many published studies have highlighted the safety value of—and recommended decision criteria for—go-arounds, yet established CAST metrics show the go-around rate from approaches that meet CAST-specified unstable approach criteria remains low, at less than 5 percent, while the go-around rate from CAST-defined egregious unstable approaches is 18 percent, following a recent upward trend. Moreover, go-arounds could introduce other operational risks, and their execution sometimes leads to undesired aircraft states linked to historical accident precursors.

Traditional data sources make it challenging for aviation safety teams to understand the underlying contributing factors influencing go-around-related aeronautical decision making and outcomes. By integrating Flight Operational Quality Assurance (FOQA), weather, airport, ambient lighting condition, and voluntary Aviation Safety Action Program (ASAP) data to create a complete flight story, the Aviation Safety Information Analysis and Sharing (ASIAS) fusion process provides new insights into the underlying contributing factors influencing go-arounds and their outcomes.

CAST chartered the Approach and Landing Go-Around (ALG) Joint Safety Analysis and Implementation Team (JSAT) in April 2018 to leverage ASIAS fusion data to gain new insights into two fundamental go-around-related questions:

1. Why are go-arounds infrequent in the NAS, even in cases where conditions indicate that based on established guidance, the execution of a go-around should have been warranted?
2. Why do some go-arounds result in undesired aircraft states?

## SE Objective

CAST recommends air carriers evaluate their go-around policies according to the ALG JSAT toolkit (Go-Around Decision Map and its accompanying narrative) and FAA Safety Alert for Operators (SAFO) 15004, Scenario-Based Go-Around Training, to evaluate current/new potential areas for improving pilot decision making and compliance with operator go-around standard operating procedures (SOP) and to revise their go-around-related training curriculums accordingly.

Primary Risks  
Mitigated

Abnormal Runway Contact (ARC), Controlled Flight Into or Toward Terrain (CFIT), Loss of Control-Inflight (LOC-I), Undershoot/Overshoot (USOS), Runway Excursion (RE), and Airprox/TCAS<sup>1</sup> Alert/Loss of Separation/Near Midair Collisions/Midair Collisions (MAC)

<sup>1</sup> traffic alert and collision avoidance system (TCAS)



## SECTION I: SE OVERVIEW

Action	Organization(s)	Strategy	Description	Due Date
<a href="#">Action 1</a>	Air Carriers	Procedures	Air carriers should evaluate their SOPs, policies, and training curriculums using the ALG JSAIT toolkit and FAA SAFO 15004 to identify areas for improving pilots' decision making and to mitigate the risk of undesired aircraft states during go-arounds.	12/31/2024
<a href="#">Action 2</a>	Air Carriers	Guidance and Training	Air carriers should revise their SOPs, policies, and training curriculums following their findings from Action 1 to improve their pilots' decision making and to mitigate undesired aircraft states during go-arounds.	06/30/2025

See section II of this SE for detailed action descriptions.

References: The detailed analysis in the ALG JSAIT Final Report is available through CAST.

### TABLE OF CONTENTS

STUDY TOPIC

**ALG**

APPROACH AND  
LANDING GO-AROUND

CICTT RISK AREAS  
ARC, CFIT, LOC-I, USOS,  
RE, and MAC

#### SECTION II: DETAILED ACTION INFORMATION

PAGE 4

*SE 236 consists of two actions, which this section lays out in detail.*

- **Action 1 (Air Carriers)** ..... **PAGE 4**  
Evaluate SOPs, policies, and training curriculums using the ALG JSAIT toolkit and FAA SAFO 15004.
- **Action 2 (Air Carriers)** ..... **PAGE 5**  
Revise SOPs, policies, and training curriculums following the findings from Action 1.

#### SECTION III: SUPPLEMENTAL INFORMATION

PAGE 6

*This section contains the following additional information that may be of interest to implementers:*

- Source Study
- Related Initiatives
- Total Cost/Resource Overview

#### SECTION IV: REVISION LOG

PAGE 7

*This section provides a history of revisions to this SE.*

## SECTION II: DETAILED ACTION INFORMATION

## Action 1: Evaluate SOPs, policies, and training curriculums using the ALG JSAIT toolkit and FAA SAFO 15004.

Primary  
Implementer

Air Carriers

Action Objective

Air carriers should evaluate their go-around-related standard operating procedures (SOP), policies, and training curriculums using the Approach and Landing Go-Around (ALG) Joint Safety Analysis and Implementation Team (JSAIT) toolkit (ALG JSAIT Go-Around Decision Map and its accompanying narrative) and FAA Safety Alert for Operators (SAFO) 15004, Scenario-Based Go-Around Training, to identify areas for improving pilots' go-around-related aeronautical decision making and to mitigate the risk of undesired aircraft states during go-arounds.

Action Timeline

Flow Time: 24 months

Due Date: 12/31/2024

Timeline/Flow for  
Future Adopters

TBD when CAST closes this action.

#	Organization(s)	Detailed Steps
1	Air Carriers	Evaluate go-around-related SOPs, policies, training curriculums as follows: Review the ALG JSAIT toolkit (Go-Around Decision Map and its accompanying narrative) and perform a gap analysis review against FAA SAFO 15004 to consider how current SOPs and policies may positively or negatively influence pilots' decisions to go around. Use analysis from internal safety data monitoring programs during the evaluation.

Closing Action [TBD]

Notes

## SECTION II: DETAILED ACTION INFORMATION

## Action 2: Revise SOPs, policies, and training curriculums following the findings from Action 1.

Primary  
Implementer

Air Carriers

Action Objective

Air carriers should revise their go-around-related standard operating procedures (SOP), policies, and training curriculums using their findings from Action 1 to improve pilots' decision-making guidance and to mitigate the occurrence of undesired aircraft states during go-arounds.

Action Timeline

Flow Time: 30 months

Due Date: 06/30/2025

Timeline/Flow for  
Future Adopters

TBD when CAST closes this action.

## # Organization(s) Detailed Steps

2	Air carriers	Revise go-around-related SOPs, policies, and training curriculums using the findings from Action 1:
		<ol style="list-style-type: none"> <li>Revise SOPs, policies, and training curriculums to maintain or reinforce those that may positively affect pilot decision making.</li> <li>Revise or remove SOPs, policies, and training curriculums that may negatively affect pilot decision making.</li> <li>Revise training curriculums to close any gaps found in Action 1 using the recommendations from FAA Safety Alert for Operators (SAFO) 15004, Scenario-Based Go-Around Training.</li> </ol>

## Closing Action [TBD]

Notes

## SECTION III: SUPPLEMENTAL INFORMATION

*Source Study* Approach and Landing Go-Around (ALG) Joint Safety Analysis and Implementation Team (JSAIT)

*Related Initiatives*

**Total Cost** **\$2,725,000** *Note: For labor, 1 Full Time Equivalent (FTE) = \$250,000*

<u>Action 1</u>	\$800,000	3.2 Cost assumes 0.05 FTE per air carrier for up to 64 air carriers.
<u>Action 2</u>	\$1,925,000	7.7 Cost assumes all air carriers have to revise go-around-related policies, standard operating procedures (SOP), and training curriculums.

	Organization	Resources Needed
<i>Direct Resource Overview—Government</i>	FAA Flight Standards Service (AFX)	N/A

	Organization	Resources Needed
<i>Direct Resource Overview—Industry</i>	Air Carriers	<ul style="list-style-type: none"> <li>• Action 1: 3.2 FTE (64 air carriers <math>\times</math> ~0.05 FTE per air carrier) to perform evaluation of current go-around-related SOPs, internal air carrier metrics, and policies against the ALG JSAIT Go-Around Decision Map and FAA Safety Alert for Operators (SAFO) 15004, Scenario-Based Go-Around Training.</li> <li>• Action 2: 7.7 FTE (64 air carriers <math>\times</math> ~0.12 FTE per air carrier) to revise go-around-related policies, SOPs, and training curriculums, if needed.</li> </ul> <p><i>Note: CAST estimates a maximum 80 percent implementation.</i></p>

<i>Indirect Resource Overview</i>	The organizations specified in this section are not expected to incur direct costs associated with implementing this SE, but they may incur indirect costs within their normal line of work.				
	<table> <thead> <tr> <th>Organization</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>FAA AFX</td> <td>Inspector resources required for normal review and approval of air carrier training programs associated with Action 2 as part of duties performed.</td> </tr> </tbody> </table>	Organization	Description	FAA AFX	Inspector resources required for normal review and approval of air carrier training programs associated with Action 2 as part of duties performed.
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FAA AFX	Inspector resources required for normal review and approval of air carrier training programs associated with Action 2 as part of duties performed.				



## SECTION IV: REVISION LOG

*Major revisions (whole numbers) represent CAST-approved changes to SE language. Minor revisions (decimals) represent minor changes to target dates or completion notes that do not affect implementer actions.*

Revision	Date	Description
0.2	02/01/2024	Action 1 due date extended from 12/31/2023 to 12/31/2024.
0.1	09/27/2023	Administrative update to due dates of Action 1 and Action 2 for portfolio consistency.
Original	12/01/2022	Start date based on CAST adoption.