



ISM Edition 14 Rev 1
Temporary Revision 2


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Change Overview

This Temporary Revision to the IOSA Standards Manual (ISM) Edition 14 Rev 1, (ISM.ED14R1.TR2) is issued to address additional changes related to FLT 3.11.59A/B, which was introduced with TR1 to ISM Ed 14 Rev 1.

Effective Date

This TR will become effective on 28 Jun 2022 and will replace ISM.ED14R1.TR1 which became effective on 27 May 2022.



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⊗ **FLT 3.11.59** (deleted)

<p>FLT 3.11.59A</p> <p>The Operator shall have a stabilized approach policy that is approved or accepted by the Authority and has associated guidance, criteria, and procedures to ensure the ongoing conduct of stabilized approaches. Such policy shall include:</p> <ul style="list-style-type: none">(i) Criteria defining the stabilized condition, to include:<ul style="list-style-type: none">(a) Aircraft configuration requirements specific to each aircraft type;(b) Checklist completion requirements;(c) Speed and thrust limitations;(d) Vertical speed limitations;(e) Acceptable vertical and lateral displacement from the normal approach path.(ii) Required minimum height(s) AAL to achieve stabilization criteria:<ul style="list-style-type: none">(a) Not lower than 1000 ft. for approaches in IMC or not lower than 500 ft. for approaches in IMC as designated by the operator and/or State where a lower stabilization height is operationally required, and a minimum stabilization height not lower than 500 ft. for approaches in VMC; or(b) Not lower than specific stabilization heights defined by the Operator and supported by a safety risk assessment in accordance with FLT 1.12.2 demonstrating acceptable risk for each defined height that is lower than any applicable height(s) specified in (ii) (a).(iii) A requirement to abandon an approach or go around in accordance with its go-around policy as defined in FLT 3.11.60 unless stabilization criteria are met at the relevant heights specified in (ii) and can be maintained until touchdown;(iv) A requirement that deviations from stabilized approach criteria must be pre-planned and require special briefings for designated unique approaches and/or abnormal conditions;(v) A description of the duties and responsibilities of the PF and PM including countermeasures to human error. (GM) <p>Note: <i>The stabilized approach policy and associated implementation shall be subjected to the Operator's safety risk management (SRM) processes and safety performance monitoring to ensure an acceptable level of safety risk is achieved and maintained.</i></p> <p>Auditor Actions</p> <ul style="list-style-type: none"><input type="checkbox"/> Identified/Assessed OM policy/guidance/procedures for the conduct of a stabilized approach (focus: flight crew procedures/definition of criteria for stabilized approach).<input type="checkbox"/> Interviewed responsible manager(s) in flight operations.<input type="checkbox"/> Examined safety risk assessments and data associated with Operator-specified AAL, as applicable.<input type="checkbox"/> Examined selected output from FDA/FDM/FOQA program (if applicable) (focus: data that indicates status of fleet stabilized approach performance).<input type="checkbox"/> Examined relevant safety objectives including SPIs/SPTs (focus: proactive measures in place for identifying and preventing unstabilized approaches).<input type="checkbox"/> Observed line flight and flight simulator operations (focus: stabilized approach).<input type="checkbox"/> Other Actions (Specify) <p>Guidance</p> <p>Refer to the IRM for the definition of <i>Flight Data Analysis (FDA) Program</i>.</p> <p>The specifications of this provision are directly related to the prevention of controlled flight into terrain (CFIT), Loss of Control In-flight (LOC-I), and runway-related incidents/accidents.</p>



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The intent of this provision is for the operator to implement a stabilized approach policy, as well as have guidance, criteria and procedures that ensure the maintenance of the intended lateral and vertical flight path during approaches, including visual approaches and/or as depicted in published approach procedures, without excessive maneuvering. Such policy also typically provides guidance for bracketing and correcting deviations during the approach to ensure the aircraft will always be at the proper speed over the runway threshold and in a position to land in the touchdown zone.

Monitoring of stabilized approach performance through SMS in accordance with the Note is required for all operators and may be accomplished using FDA or through other reporting systems.

One or more minimum stabilization heights AAL as specified in (ii) may be established for the criteria defined in (i) (e.g., landing configuration may be required at 1,000 feet AAL while approach speed or vertical speed limitations may be required at 500 feet AAL). Selection of heights may also vary depending on aircraft type and operational characteristics (e.g., turbojet vs. turboprop). Finally, some Operators may choose not to distinguish between VMC and IMC approaches using one set of stabilization heights and associated criteria for both.

The criteria defining the stabilized condition are listed in item i) of the provision and are considered at the 1000 ft. AAL and 500 ft. gates as specified in item ii) a). Alternatively, the operator may specify stabilization heights appropriate to its operation as specified in item ii) b).

Operator stabilized approach policy and associated implementation is subject to SRM processes and safety performance monitoring. Operator-defined minimum stabilization heights which are lower than those specified in (ii) (a) require the conduct of a specific safety risk assessment in accordance with FLT 1.12.2 demonstrating an acceptable risk level for each defined height.

Refer to FLT 3.11.59B for factors related to the consistent conduct of stabilized approaches that would be taken into account by the operator's SRM processes (including required SRAs).

An operator conforming to item ii) a), in accordance with operational requirements approved or accepted by the Authority, to establish stabilization criteria for heights lower than 1000 ft. AAL, but no lower than 500 ft. AAL (IMC or VMC), for approaches designated by the operator and/or State where:

- Lower minimum approach stabilization heights are authorized for turbo-propeller aircraft operations (e.g., 500 feet AAL on VMC/IMC approaches), **and/or**
- Maneuvering at a lower height AAL is required to meet instrument or other charted approach constraints (e.g., RNAV/RNP approaches, circling approaches and charted visual approaches), **and/or**
- Aircraft are required to comply with ATC speed constraints on final approach, **and/or**
- Deviations from selected approach stabilization criteria at a height lower than 1000 feet AAL, are operationally required, and the operator can demonstrate pilot adherence to its stabilized approach policy via a continually monitored, managed and active flight data analysis (FDA) program. These criteria used also typically address the maneuvering that may be required in accordance with a charted visual or instrument approach procedure.

The specifications in item (v) address:

- Timely and effective PF briefings;
- PM stabilized approach criteria deviation callouts and compliance checks ;
- PF/PM actions in the event of destabilization below stabilization height, to include monitoring by the PM for possible excessive deviations from flight path, airspeed, vertical speed, pitch or bank



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during the approach, during the transition from approach to landing and during flare and touchdown;

- As applicable, the role of additional flight crew members on the flight deck (e.g., augmented crew members).
- The Threat and Error Management (TEM) countermeasures to keep threats, errors, and undesired aircraft states from reducing margins of safety in flight operations. Examples of countermeasures include CRM training, SOPs, checklists, briefings, callouts, and other means that assist the flight crew in managing human error.

OEM aircraft-specific descent and approach profiles can provide helpful guidance for flight crews to achieve a stabilized approach.

An operator, in accordance with requirements of the Authority and consistent with OEM guidance, typically develops a stabilized approach policy, guidance, criteria and procedures based on one or more of the following source references:

- Global Action Plan for the Prevention of Runway Excursions Coordinated by EUROCONTROL and the Flight Safety Foundation – January 2021;
- Flight Safety Foundation Reducing the Risk of Runway Excursions – Report of the Runway Safety Initiative – May 2009;
- Flight Safety Foundation Runway Excursion Risk Awareness Tool;
- Federal Aviation Administration Advisory Circular – AC No. 91-79A – Change 2;
- Federal Aviation Administration - Runway Excursions Support Tool;
- European Action Plan for the Prevention of Runway Excursions (EAPPRE) Edition 1.0;
- ICAO Runway Safety Programme – Global Runway Safety Action Plan First Edition, November 2017;
- IATA/IFALPA/IFATCA/CANSO Unstable Approaches: Risk Mitigation Policies, Procedures and Best Practices, 3rd Edition.
- IATA Runway Safety Accident Analysis Report 2010-2014;
- Any equivalent reference document approved or accepted by the Authority for the development of flight crew guidance related to the prevention of unstable approaches and runway excursions.



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FLT 3.11.59B

If the Operator has a stabilized approach policy that defines required minimum heights (AAL) to achieve stabilization criteria in accordance with FLT 3.11.59A, (ii)(b), that are lower than any applicable height(s) specified in (ii)(a), the Operator shall ensure the safety risk management processes required to achieve overall conformity with FLT 3.11.59A take into account the following factors:

- (i) Precursors of unstable approaches and operational trends that are identified through the collection and analysis of available de-identified data (e.g., from FDA/FDM/FOQA and other non-punitive reporting programs);
- (ii) Precursors of unstable approaches identified through observational procedures which cannot be captured by the traditional reporting or FDA.
- (iii) Identification and analysis of hazards associated with human factors and piloting techniques.
- (iv) Analysis of aircraft type-specific flight characteristics including energy management in the approach, landing, and go-around regimes;
- (v) Operator's ability to work with ATSU's to implement procedural changes at specific airports with runways identified as higher risk by data analysis;
- (vi) Flight crew training program content related to the implementation of stabilized approach policy;
- (vii) The most current and relevant manufacturer's guidance, limitations, and recommendations related to the development and maintenance of stabilized approach policy.

Auditor Actions

- Identified/Assessed** OM policy/guidance/procedures for the conduct of a stabilized approach (focus: flight crew procedures/definition of criteria for stabilized approach).
- Interviewed** responsible manager(s) in flight operations.
- Examined** safety risk assessments and data associated with Operator-specified AAL, as applicable.
- Examined** selected output from FDA/FDM/FOQA program (if applicable) (focus: data that indicates status of fleet stabilized approach performance).
- Examined** relevant safety objectives including SPIs/SPTs (focus: proactive measures in place for identifying and preventing unstabilized approaches).
- Observed** line flight and flight simulator operations (focus: stabilized approach).
- Other Actions** (Specify)

Guidance

Refer to the IRM for the definition of Flight Data Analysis (FDA) Program.

The specifications of this provision are directly related to the prevention of controlled flight into terrain (CFIT), Loss of Control in-Flight (LOC-I), and runway related incidents/accidents.

Refer to FLT 1.12.2 and associated guidance material for additional information regarding safety risk assessments.

The intent of this specification is to ensure the operator's SRM processes take into account the factors related to the consistent conduct of stabilized approaches in accordance with operator policy. Additional hazard criteria and risk factors may be identified by the operator and incorporated into required risk assessments.



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Examples of observational procedures specified in (ii) include LOSA or data from regulatory line checks.

To further support SRM activities, an operator would also:

- Include and monitor aircraft parameters related to CFIT, LOC-I, and runway related incidents/accidents in their flight data analysis (FDA) program in accordance with provisions in ORG sub-section 3.3;
- Include unstable approaches followed by a landing as a reporting event by the flight crew;
- Minimize the need for the flight crew to report a go-around due to an unstable approach unless there is another significant event associated with the go-around (e.g., flap overspeed).