



Federal Aviation Administration

Flight Inspection Commissioning Requirements Decision Guide

Purpose

This guide provides practical reference material to assist in determining when a flight inspection is required following modifications to runways, lighting systems, or instrument procedures.

Scope and Use

The information contained herein is intended to support operational understanding and decision-making. It does not establish regulatory requirements and should not be used as a substitute for applicable FAA orders, directives, or other authoritative publications. Users must consult official sources to ensure compliance with current standards and procedures.

When uncertain, coordinate early with:

- Airport Operator Project Engineering
- FAA Office of Airports (ARP)
 - Airport District Office (ADO)
- FAA Air Traffic Organization (ATO)
 - Mission Support (AJV)
 - Technical Operations (AJW)
 - Flight Program Operations (AJF)

Audience

- Airport Sponsor/Operator (Project Engineer/Project Manager)
- Program Engineer

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Summary of When a Flight Inspection Is Required

Flight inspection/commissioning is typically required when:

1. First time Instrument Flight Rules (IFR) use of a runway or runway end (including circle-to-land use).
2. Runway extension or changes that affect IFR procedures or associated lighting.
3. New, upgraded, or relocated:
 - Approach Lighting System (ALS), Runway End Identifier Lights (REILs), runway edge lighting (when tied to IFR changes), or
 - Visual Glide Slope Indicator (VGSI) / Precision Approach Path Indicator (PAPI) associated with IFR procedures.
4. Modifications to ALS or VGSI/PAPI that affect:
 - Published angle, system configuration, or
 - Use for obstacle mitigation (e.g., 20:1 penetrations).
5. Establishing or restoring night minima, once obstacles/survey issues are resolved or when lighting changes significantly.

Section 1 – New or Extended Runway for IFR Use

Scenario: New IFR runway, or existing IFR runway extended.

Question 1 – Will the new or extended runway be used for IFR procedures (including circling)?

- **No →**
 - Flight inspection not required at this time, unless ATO and ARP Headquarters (HQ) determine otherwise.
 - If IFR use is requested in the future, a flight inspection will be required.
- **Yes → Go to Question 2.**

Question 2 – Has this runway been used for IFR before?

- **No** (first-time IFR use for this runway) → First time IFR commissioning required.

Commission the following (as applicable):

- All runway and approach lighting systems, even if intended only for daytime IFR use:
 - Runway edge lights
 - REILs
 - Runway centerline lights
 - ALS, etc.
- Vertical Guidance:

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- Commission VGSI/PAPI if adding electronic vertical guidance.
- Night Evaluation Flight Check:
 - Coordinate with Mission Support to determine whether night minima are possible, requested, and authorized.
 - A night evaluation is required if night minima are to be published and/or if there is significant change in nighttime lighting appearance.
- **Yes** (runway already used for IFR) → Go to Question 3.

Question 3 – What has changed? Is the instrument flight procedure (IFP):

- Amended or new, or
- Modified to include circling minima to a runway end not previously used for an instrument procedure, or
- Associated with an ALS, REILs, and/or VGSI/PAPI that has been moved or relocated?
- **Yes** → Limited flight inspection required
 - Conduct a flight inspection only on the changed elements, such as:
 - Lights on the arrival runway end that was extended or relocated
 - Relocated or modified PAPIs/VGSIs, ALS, or REILs associated with the affected runway end.
 - Opposite runway end systems that were not moved or modified generally do not require recommissioning.
- **No** → No new flight inspection is required unless:
 - A system has been reconfigured, or
 - The VGSI/VGSIs are affected (e.g., angle change, relocation, or use for 20:1 mitigation – see Section 2).
 - ATO and ARP HQ determine otherwise.

Section 2 – Airfield Lighting Changes

Scenario: New or relocated lighting.

Question 1 – Have ALS, VGSI/PAPI, or REILs on a runway end been newly installed or relocated?

- **No** → Go to Question 2.
- **Yes** → Flight inspection required.
 - Commissioning flight inspection is required regardless of previous commissioning status.
 - Night evaluation is required:
 - For publication of night minima, and/or
 - If there is a significant change in nighttime lighting appearance.

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Section 2.1 – Cases Where No Flight Inspection Is Required

Question 2 – Is the change limited to runway edge lights only, with no IFP changes?

- Replacing runway edge lights with the same capability/type (including LED conversions).
- Replacing previously commissioned light systems of the same type in the same location.

If **Yes** to any of the above:

- No flight inspection required, unless ATO and ARP HQ determine otherwise.

Question 3 – Are you upgrading Medium Intensity Runway Lights (MIRLs) to High Intensity Runway Lights (HIRLs), with a record of previous commissioning in the FAA AIRNAV (AJV) database?

- **Yes** → No flight inspection required, unless ATO and ARP HQ determine otherwise.
- **No** → If change involves ALS, VGSI/PAPI, or REILs, see Sections 2.2 – 2.4.

Section 2.2 – Visual Glideslope Indicators (VGSI/PAPI)

Question 4 – Is a new or relocated VGSI/PAPI being installed for a runway with an associated IFR procedure (including circling approaches)?

- **Yes** → Commissioning flight inspection required.
 - All new or relocated VGSIs associated with an IFR procedure require commissioning.
 - Night evaluation may be required if night minima are to be published or lighting appearance is significantly changed.

Question 5 – Has an existing VGSI/PAPI been changed?

Examples of changes that may require commissioning:

- System reconfiguration (e.g., 2-box to 4-box PAPI or major hardware changes)
- New published angle (change in nominal approach slope).
- Addition of electronic vertical guidance to the runway.
- VGSIs are used to mitigate 20:1 obstacle penetrations.

If **Yes** to any of the above:

- Commissioning flight inspection may be required.
 - Commissioning is mandatory if VGSIs are used to mitigate an unlit 20:1 obstacle penetration.
 - Coordinate with Mission Support and engineering.
 - Flight inspection may be deemed necessary by ATO and ARP HQ.

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VGSI Performance Criteria (for reference)

- VGSI angle must be within $\pm 0.2^\circ$ of the desired angle.
 - Adequate visible lateral coverage on each side (unless intentionally restricted).
 - Obstacles must be cleared with a proper fly-up indication.
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Section 2.3 – Relocated Lighting (REILs, VGSIs, etc.)

Question 6 – Have REILs, VGSIs, or similar lighting components been relocated (e.g., due to a runway extension) even if the runway end location itself is unchanged?

- **Yes** → Commissioning flight inspection required, regardless of previous commissioning status.
 - **No** → No flight inspection required, unless ATO and ARP HQ determine otherwise.
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Section 2.4 – Temporary Lighting Systems

Question 7 – Are temporary lighting systems being used (e.g., during construction)?

- **Yes** →
 - All rules in Section 2 apply to temporary lighting exactly as for permanent lighting.
 - Ensure all required data for temporary systems are submitted to the FAA Aeronautical Information Services prior to flight inspection.
 - **No** → Proceed using the other sections, as applicable.
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Section 2.5 – Approach Lighting System (ALS) Upgrades or Modifications

Question 8 – Is there a new, or relocated ALS?

- **Yes** →
 - Commissioning flight inspection and night evaluation required for IFR usage and night minima.
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Question 9 – Has the ALS been modified (e.g., ALSF-1 to SSALR/SSALF or similar)?

- **Yes** →
 - A subsequent night evaluation may be needed, depending on the nature of the modification and its effect on:
 - Approach lighting performance, and
 - Nighttime lighting appearance.
 - Coordinate with Mission Support and engineering to determine if a new or partial flight inspection is required.

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Section 3 – Establishment or Restoration of Night Minima

Scenario: The instrument approach to a runway end currently has “night minima NA” (Not Authorized), and you want to establish or restore night use.

Note: Establishing night minimums on published procedures may not be AIP eligible. Coordinate with the Airport District Office.

Question 1 – Are you establishing or restoring night minima for an existing instrument approach?

- **No** →
 - No additional flight inspection required beyond what is already required under Sections 1 and 2.
- **Yes** → Go to Question 2.
 - Coordinate with Mission Support early to determine:
 - Why night minima were N/A, and
 - What supporting actions/mitigations are required.

Section 3.1 – Determining the Reason Night Minima Were N/A

Question 2 – Was night minima removal due solely to a missing runway edge lighting commissioning date?

- **Yes** → Consult with Mission Support and Airport District Office

Question 3 – Were night minima N/A due to obstacles or lack of survey data?

- **Yes** → Flight inspection may be required. Consult with Mission Support.

Question 4 – Other Reasons for Night Minima Being N/A?

- **Likely** → Commissioning flight inspection required
Examples requiring special attention:
 - VGSIs used to mitigate unlit 20:1 penetrations require a commissioning inspection
 - Significant change in nighttime lighting appearance require a night evaluation.
 - Other safety or procedure related changes identified by Mission Support or Technical Operations.

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Section 4 – New IFR Runway Ends / Circle-to-Land to New Runway Ends

Scenario: Additional IFR procedures added to runway ends not previously used for IFR operations, including circle-to-land procedures.

Because this situation is functionally the same as introducing first-time IFR use for that runway end, apply Section 1:

- Is the procedure being amended or added to include new IFR runway ends (including circle-to-land)?
 - **No** → No new flight inspection required beyond other applicable sections, unless the ATO and ARP HQ determine otherwise.
 - **Yes** →
 - Treat as a first-time IFR commissioning for that runway end.
 - Apply all requirements under Section 1, including VGSI commissioning if adding electronic vertical guidance.

Primary References

- [FAA Order 8200.1D – United States Standard Flight Inspection Manual](#)
- [FAA Order 8260.19 – Flight Procedures and Airspace](#)

FAA Resources for Questions

Lighting:

Please reach out to the appropriate [FAA Airport District Office \(ADO\)](#)

Procedures:

Please reach out to the [FAA Mission Support](#)

Reimbursable Agreements:

Please reach out to [FAA Flight Program Operations](#)