



U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

**ORDER  
8000.94B**

National Policy

Effective Date:  
09/26/2023

**SUBJ:** Procedures for Acceptance or Review of Low-Visibility Operations/Surface Movement Guidance and Control Systems

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- 1. Purpose of This Order.** This order provides and defines the Federal Aviation Administration (FAA) roles, responsibilities, and processes for acceptance of Low Visibility Operations/Surface Movement Guidance and Control Systems (LVO/SMGCS) at United States airports. This order contains guidance that is administrative in nature.
- 2. Audience.** This order applies to the Office of Airports, the Air Traffic Organization, Aviation Safety, and any interested aviation stakeholders.
- 3. Where You Can Find This Order.** You can find this order on the FAA's [website](#).
- 4. What This Order Cancels.** This order cancels FAA Order 8000.94A, Procedures for Establishing Airport Low Visibility Operations and Approval of Low-Visibility Operations/Surface Movement Guidance and Control System Operations, dated August 26, 2020.
- 5. Explanation of Policy Changes.** The significant changes include:
  - a.** Emphasized the voluntary nature of the LVO/SMGCS plan, for example changed terminology from LVO/SMGCS plan approval to LVO/SMGCS plan acceptance.
  - b.** Harmonized with International Civil Aviation Organization (ICAO) by including meter equivalent Runway Visual Range (RVR) values.
  - c.** Changed terminology from LVO/SMGCS plan inspection to LVO/SMGCS initial evaluation/review/exercises.
  - d.** Emphasized Part 139 inspection as adequate to cover Airports' portion of the exercise.
  - e.** Changed required FAA lines of business (LOBs) signatories in the Record of Acceptance. Air Traffic's concurrence may be indicated by a signed Letter of Agreement (LOA) between the Airport Traffic Control Tower (ATCT) and airport operator. The Office of Airports may indicate concurrence by email. The record of acceptance to airport operator is signed by the Office of Safety Standards.
  - f.** Added information regarding amending, suspending, or canceling a LVO/SMGCS plan.
  - g.** Changed LVO/SMGCS plan evaluation/review timeline from 12-18 months to not to exceed 36 months for existing plans.

**6. Background.** Emerging flight deck technologies and improved procedures in air carrier and general aviation aircraft have enabled aircraft to take-off and land in increasingly lower visibilities, making taxiing a limiting factor in overall airport low visibility operations. An LVO/SMGCS plan describes operational procedures to prepare for and operate during low visibility conditions [e.g., with specific RVR sensor(s) reporting visibility lower than 1200 feet (350 meters)].

**a.** AC 120-57, Low Visibility Operations/Surface Movement Guidance and Control System, provides guidance about specific procedures and ground infrastructure to support safe low visibility ground operations. Airport operators, who choose to initiate and implement an LVO/SMGCS plan, should consult AC 120-57. Airports with low visibility operations should consider developing and implementing a LVO/SMGCS plan tailored to each airports' unique layout, environmental factors, and traffic volume.

**b.** This order provides guidance to FAA personnel working with U.S. airports that have voluntarily chosen to implement LVO/SMGCS plans and operations commensurate with their authorized landing minimums. It does not introduce any new regulatory requirements for airport or aircraft operators.

**Note:** In this order, an "inspection" applies to the Airport's representative conducting a Title 14, Code of Federal Regulations, (14 CFR) part 139 required airport inspection or a separate "lighting inspection" that is the responsibility of the airport operator. The FAA LVO/SMGCS team conducts a "review" for new or amended LVO/SMGCS plans and a periodic "exercise" for existing LVO/SMGCS plans that have already been accepted.

**7. Lines of Business Roles and Responsibilities.** Airports, Air Traffic, and Aviation Safety share responsibility for policy and conduct of the national LVO/SMGCS program.

**a.** The Office of Airports provides the airports with equipage engineering specifications and installation requirements for LVO/SMGCS. They provide airport certification policy and guidance for input to the LVO/SMGCS planning, approval, acceptance, review, and exercise activities.

**b.** Air Traffic provides implementation, acceptance, and collaboration of the LVO/SMGCS program through the geographic Service Centers, ATC district offices, the ATCT, and other necessary field and service areas.

**c.** Aviation Safety provides the necessary guidance and training for appropriate Office of Safety Standards inspectors to support implementation, acceptance and technical assessment of the operational safety of the LVO/SMGCS plan.

**8. Airport Regions, Air Traffic Service Area/District and Safety Standards Roles and Responsibilities.**

**a.** Regional Airports divisions support LVO/SMGCS plans by providing the necessary ground infrastructure for low visibility operations through the Airport Improvement Program or other grant funding programs when suitable. An assigned Regional Airport Certification Safety Inspector as a member of the FAA LVO/SMGCS team provides the FAA Airports technical

perspective for proposed and amended LVO/SMGCS plans. LVO/SMGCS lighting, signs, and markings are typically inspected during the normal course of a Part 139 inspection. The Part 139 inspection should be adequate for the airports portion of the periodic exercise. Any discrepancies found during the Part 139 inspection will be required to be corrected in an agreed upon time frame. This information should be shared with the FAA LVO/SMGCS team. Airports will support, as able, periodic LVO/SMGCS exercises.

**b. Service Area Director of Operations.** Service Area Director of Operations, through respective ATCT managers at each airport, will follow national policies and procedures for assisting an airport in attaining an FAA-accepted LVO/SMGCS plan. They assist with both new and amended plans. Follow on activities include supporting periodic exercises and developing procedures for the addition of newly accepted LVO/SMGCS runways/operations. An ATCT representative and/or a terminal service area/district representative, will participate as member(s) of the FAA LVO/SMGCS team. The Director of Operations will ensure that local LOAs and/or Standard Operating Procedures (SOP) are developed to support LVO/SMGCS operations. The LOA/SOP should address LVO/SMGCS responsibilities, including:

- (1) The activation of airport controlled LVO/SMGCS lighting and equipment;
- (2) RVR thresholds that trigger changes in airport LVO/SMGCS operational status, and
- (3) Coordination and procedures required to initiate, conduct, and terminate LVO/SMGCS operations in accordance with the LVO/SMGCS plan.

**c. Safety Standards,** through the Flight Technologies and Procedures Division, will designate representatives to participate on the FAA LVO/SMGCS team(s) as needed, to review new or amended LVO/SMGCS plans and conduct periodic LVO/SMGCS exercises. Flight Technologies and Procedures Division will maintain a list of airports with accepted LVO/SMGCS plans on their Division's [website](#).

**9. FAA LVO/SMGCS Team.** Each LOB will provide a representative to participate as a member of a FAA LVO/SMGCS team.

**a.** The FAA LVO/SMGCS team will review all initial or revised LVO/SMGCS plans. The team ensures the LVO/SMGCS plan describes conditions that trigger implementation for all or portions of the airport.

**b.** The FAA LVO/SMGCS team provides guidance to the Airport LVO/SMGCS Working Group (as defined in AC 120-57) in tailoring the plan to each individual airport. AC 120-57 provides broad guidance and cannot address all aspects of how each airport could best establish a plan. The LVO/SMGCS team is encouraged to consider safe alternatives when conditions exist that do not permit AC 120-57 compliance, for example:

- (1) Surface Movement Radar (SMR) or runway guard lights may not be necessary at an airport planning LVO/SMGCS operations below RVR 500 feet (150 meters) when there are very few low visibility aircraft operations. ATC may agree to allow only one aircraft or ground vehicle (except follow-me vehicles) at a time in the movement area to prevent runway incursions.

(2) Consider reviewing other airports LVO/SMGCS plans for alternative solutions.

(3) Consider the use of emerging technologies as mitigations for detection capabilities. The team will facilitate coordination between the airport operator and FAA LOBs (Safety Standards, Airports, and Air Traffic) regarding their proposed use.

**10. LVO/SMGCS Operation Acceptance Process.** When the steps below are complete, the Flight Technologies and Procedures Division, with concurrence of Airports and Air Traffic, will send a Record of Acceptance to the airport operator.

**a. LVO/SMGCS plan acceptance.** After the airport operator submits their proposed LVO/SMGCS plan, the FAA LVO/SMGCS team members will review the plan and coordinate any recommended changes with the LVO/SMGCS Working Group. If all FAA LVO/SMGCS team members concur, they will indicate acceptance to the Flight Technologies and Procedures Division FAA LVO/SMGCS team participant.

**b. LVO/SMGCS airport data.** The airport operator will submit an airport diagram showing the location of ground equipment, taxi routing, infrastructure, and other characteristics relevant to the LVO/SMGCS plan or necessary for the LVO/SMGCS taxi chart(s). The airport diagram and data must be acceptable to all members of the FAA LVO/SMGCS team.

**c. Taxi charts.** The airport operator may contract with a commercial vendor or make other appropriate arrangements to create a LVO/SMGCS taxi chart(s). The chart will be reviewed, accepted by the FAA LVO/SMGCS team, and made available to ATC, pilots/operators, and participating airport tenants.

**d. Initial Evaluation.** The FAA LVO/SMGCS team will accomplish an initial evaluation exercising the proposed LVO/SMGCS final plan. They will verify the airport environment and airport plan actions are accurately described in the LVO/SMGCS plan. Any discrepancies and comments must be resolved for a successful evaluation. It is acceptable for a limited portion of an airport to be evaluated as the only airport section that will have LVO/SMGCS operations implemented, or portions of an airport may have LVO/SMGCS operations completed in stages (e.g., one taxiway to one runway operation) due to budget, construction schedules or other factors. The initial evaluation should:

(1) Evaluate the operational concept of the plan and review the LVO/SMGCS taxi chart(s) for proper content and accuracy.

(2) Evaluate alternative procedures for inoperative components such as stop bar and taxiway centerline lighting systems and SMR.

(3) Examine appropriate communications between ATC, airport operator, and other required parties (addressed in the LOA(s) and or SOP(s)) on the initiation and termination of LVO/SMGCS procedures.

**Note:** The initial evaluation will be accomplished as a table-top exercise. However, with manager approval, the initial evaluation may also be accomplished on-site.

e. LOA. The ATCT and the airport operator will complete a LOA to support LVO/SMGCS operations. This LOA also signifies Air Traffic concurrence with the LVO/SMGCS plan.

**11. LVO/SMGCS Plan Reviews and Exercises.** The FAA LVO/SMGC team will perform periodic review/exercises at airports with accepted LVO/SMGCS plans. The interval between review/exercises should not exceed 36 months (i.e., the FAA LVO/SMGCS team may choose to schedule periodic review/exercises every 12 months for airports that rarely require LVO/SMGCS operations and 36 months for those airports that utilize LVO/SMGCS operations regularly).

a. The review/exercise conducted by the FAA LVO/SMGCS team will consist of:

(1) Comparing accuracy of the chart to the airport geometry and geographic position markers locations, and other appropriate LVO/SMGCS markings.

(2) A review/exercise of the LVO/SMGCS plan will be accomplished as a table-top exercise. However, with management approval, the review/exercise may be accomplished on-site. The team will evaluate the overall plan, observing functionality, serviceability checks, communication, etc.

(3) Out-brief to discuss any potential changes needed to the LVO/SMGCS plan.

b. After satisfactory completion of the review/exercise the Flight Technologies and Procedures Division, with concurrence of Airports and Air Traffic, will send a Record of Acceptance to the airport operator.

**12. LVO/SMGCS Plan Revision or Suspension.**

a. When an airport submits a revision to an accepted LVO/SMGCS plan, the FAA LVO/SMGCS team will review the revision in accordance with this order and issue a new Record of Acceptance. A new Record of Acceptance is not required for administrative changes or changes to the airport that do not affect the LVO/SMGCS plan. In such cases, the Flight Procedures and Airspace Group Aviation Safety Inspector will review and send an email to the airport operator acknowledging the changes. The FAA LVO/SMGCS team will be advised of any temporary changes that may impact the LVO/SMGCS plan.

b. If an airport operator elects to suspend their LVO/SMGCS program, the airport operator will send notification to the FAA LVO/SMGCS team.

**13. LVO/SMGCS Plan Cancellation.** If an airport operator elects to cancel use of an accepted LVO/SMGCS plan they will provide notification in writing to the Flight Technologies and Procedures Division. The Flight Technologies and Procedures Division will remove the airport from the list of airports with accepted LVO/SMGCS plans, and send a letter to the airport operator acknowledging the airport will no longer have a LVO/SMGCS plan.

**14. Directive Feedback Information.** For your convenience, [FAA Form 1320-19](#), Directives Feedback Information, is included at the end of this order to note any deficiencies found, clarification needed, or suggested improvements regarding the contents of this directive. When forwarding your comments to the originating office at [9-AWA-AFS400-COORD@faa.gov](mailto:9-AWA-AFS400-COORD@faa.gov) for consideration, please provide a complete explanation of why the suggested change is necessary.



Robert M. Ruiz  
Acting Deputy Executive Director, Flight Standards Service



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

### Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

**Subject:**

**To:** Directive Management Officer, \_\_\_\_\_

*(Please check all appropriate line items)*

An error (procedural or typographical) has been noted in paragraph \_\_\_\_\_ on page \_\_\_\_\_.

Recommend paragraph \_\_\_\_\_ on page \_\_\_\_\_ be changed as follows:  
*(attach separate sheet if necessary)*

In a future change to this directive, please include coverage on the following subject  
*(briefly describe what you want added):*

Other comments:

I would like to discuss the above. Please contact me.

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