



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

Advisory Circular

Subject: SURFACE MOVEMENT GUIDANCE
AND CONTROL SYSTEM

Date: 10/5/94
Initiated by: AFS-410

AC No: 120-57
Change: 1

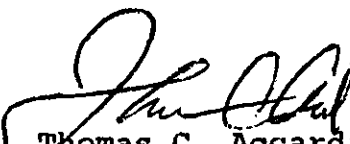
1. PURPOSE. This change extends the effective date that all airports with operations below 1,200 feet runway visual range (RVR) should comply with the guidance contained in the advisory circular. Its purpose is to allow sufficient time to plan capital expenditures. All airports currently conducting operations below 1,200 feet RVR should continue to strive to establish their Surface Movement Guidance and Control System (SMGCS) working group by January 1, 1995. Pending finalized lighting specifications, airports developing a SMGCS plan may continue to apply for approval using existing guidance in Advisory Circular 120-57.

The Change number and date of the changed material are carried at the top of the page. Pages having no changes retain the same heading information.

2. PRINCIPAL CHANGES. In paragraph 2, Applicability, and paragraph 5c, Airport SMGCS Plan, the effective date has been changed to January 1, 1996.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
1	9/4/92	1	10/5/94
2	9/4/92	2	9/4/92
3	9/4/92	3	9/4/92
4	9/4/92	4	10/5/94


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Director, Flight Standards Service



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1. PURPOSE. This Advisory Circular (AC) describes the standards and provides guidance in the development of a Surface Movement Guidance and Control System (SMGCS) plan for U.S. airports conducting operations in visibility conditions less than 1,200 feet runway visual range (RVR).

2. APPLICABILITY. The guidance in this AC applies to airports seeking approval for takeoff and landing operations below 600 feet RVR and to airports seeking any initial Category III landing approval after the effective date of this AC. By January 1, 1996, all airports with operations below 1,200 feet RVR should follow the guidance in this AC. After January 1, 1996, the Federal Aviation Administration (FAA) will review the procedures and facilities at airports to determine the implementation status of the standards within this AC.

3. RELATED FEDERAL AVIATION REGULATIONS (FAR) AND READING MATERIAL.

a. FAR Part 139, Certification and Operations: Land Airports Servicing Certain Air Carriers.

b. AC's and Orders relating to this subject may be found in appendix 1 of this AC.

4. DEFINITIONS.

a. Apron (Ramp). In this document, the term "apron" comprises the area and facilities used for aircraft gate parking and aircraft support and servicing operations. It includes the following subcomponents:

(1) Aircraft Parking Positions. Used for parking aircraft to enplane and deplane passengers, load or unload cargo.

(2) Aircraft Service Areas. On or adjacent to an aircraft parking position. They are used by airline personnel/equipment for servicing aircraft and staging of baggage, freight, and mail for loading and unloading of aircraft.

(3) Taxilanes. Reserved to provide taxiing aircraft with access to and from parking positions.

(4) Service/Fire Lanes. Identified rights-of-way on the apron designated for aircraft ground service vehicles and fire equipment.

b. Controlling Region. In this document, the term "controlling region" refers to the FAA geographic region in which an airport is located.

c. Hold Point. In this document, the term "hold point" refers to a location where the air traffic controller could be expected to hold a taxiing aircraft.

d. Low Visibility Operations. In this document, the term "low visibility operations" means the movement of aircraft on the airport when the visibility conditions are reported to be less than 1,200 feet RVR.

e. Movement Area. In this document, the term "movement area" refers to the runways, taxiways, and other areas of an airport/heliport which are utilized for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of aprons and aircraft parking areas. At those airports/heliports with an air traffic control tower (ATCT), specific approval for entry onto the movement area must be obtained from air traffic control (ATC).

f. Non-movement Area. In this document, the term "non-movement area" refers to taxiways and apron areas not under the control of ATC.

g. Surface Movement Guidance and Control System. SMGCS consists of the provisions for guidance as it relates to the control or regulation of facilities, information, and advice necessary for pilots of aircraft and drivers of ground vehicles to find their way on the airport during low visibility operations and to keep the aircraft or vehicles on the surfaces or within the areas intended for their use. Control or regulation means the measures necessary to prevent collisions and to ensure smooth and efficient traffic flow.

h. Taxi Route. In this document, the term "taxi route" refers to a specific sequence of taxiways or taxiway segments used by aircraft during low visibility operations when taxiing between the runway and the apron.

5. IMPLEMENTATION.

a. SMGCS Working Group. The airport operator, in consultation with the users, should establish a SMGCS working group for all

takeoff or landing operations below 600 feet RVR. A SMGCS working group should also be established for new landing operations below 1,200 feet RVR. In addition, for airports previously authorized operations below 1,200 feet RVR, a SMGCS working group should be established before January 1, 1995. The working group should consist of representatives from (1) the airport staff and departments selected by the aerodrome operator or appropriate authority; (2) the local ATC facility; (3) the local FAA Airports office (district or regional); (4) the Flight Procedures Branch of the appropriate FAA Regional Flight Standards Division; (5) the appropriate Air Transport Association Regional Office and the airlines which will be conducting low visibility operations at the airport; (6) the appropriate FAA Airway Facilities (sector or regional); and (7) appropriate pilot groups.

b. Airport Evaluation. Since no two airports nor aircraft capabilities are alike, the SMGCS working group must review the existing facilities and procedures at each airport prior to the development of the airport SMGCS plan. This review should include at least the following:

- (1) The airport layout and surface traffic pattern.
- (2) Current air traffic procedures used for low visibility operations.
- (3) Runways and taxiways used for low visibility operations.
- (4) Lighting, marking, and signs for runways and taxiways supporting low visibility operations.
- (5) Emergency response of aircraft rescue and fire-fighting (ARFF) services during low visibility operations.
- (6) Ground vehicle operations.
- (7) Critical area protection criteria.
- (8) Snow removal equipment routing and priorities.
- (9) Current publications available to flightcrews and ground vehicle operators.
- (10) Consideration of advanced technologies.

Note: For applicable references see appendix 1.

c. Airport SMGCS Plan. A detailed SMGCS plan should be developed for each airport identifying the responsibilities of those involved. An example of a detailed SMGCS plan is provided in appendix 2.

(1) A detailed SMGCS plan should be developed for all new landing operations below 1,200 feet RVR, or for all takeoff or *landing operations below 600 feet RVR. By January 1, 1996, a SMGCS * plan should also be developed for previously authorized operations below 1,200 feet RVR.

(2) The plan should clearly identify the responsibilities of those involved (i.e., airport operator, ATC, ARFF, airlines, and ground vehicle operators). The plan should also clearly identify how and when these responsibilities will be carried out (e.g., the plan may identify different requirements for operations between 1,200 feet RVR and 600 feet RVR, and those operations below 600 feet RVR).

(3) At airports previously approved for operations below 1,200 feet RVR, down to and including 600 feet RVR, the SMGCS working group should review the existing operation to determine whether the airport has implemented the standards contained in this AC.

(4) All SMGCS plans should be submitted through the appropriate FAA Regional Flight Standards Division to the Manager, Technical Programs Division, AFS-400 (FAA headquarters), for approval.

6. RESPONSIBILITIES.

a. Flight Standards-Controlling Region. The Flight Standards Division in the controlling region will have the responsibility of coordinating the evaluation of the SMGCS plan to determine applicability to the criteria set forth in existing FAA orders, advisory circulars, and the guidance material contained in this AC. The appropriate regional Flight Standards Division will be responsible for monitoring adherence to the SMGCS plan under its purview, and will notify the appropriate organization(s) of any deficiencies. For SMGCS plans requiring Flight Standards Service approval, deviations to criteria will be identified in an evaluation report. The evaluation report will be forwarded to FAA headquarters, Flight Standards Technical Programs Division, AFS-400.

b. Flight Standards-Headquarters. The Technical Programs Division, AFS-400, which is also the final approving authority for all SMGCS plans, will review the evaluation report to determine the appropriateness of authorizing low visibility operations.

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