

Section 7



Surface Movement Guidance and Control System (SMGCS)

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Surface Movement Guidance and Control System (SMGCS)

- **To enhance taxiing capabilities in low visibility with additional markings and lights**
- **Required for airports which have Air Carrier takeoff or landing operations with less than 1200 feet runway visual range (RVR)**
- **Requires airports to have a low visibility taxi plan**
- **Affects both aircrew and vehicle operators**

Surface Movement Guidance and Control System (SMGCS)

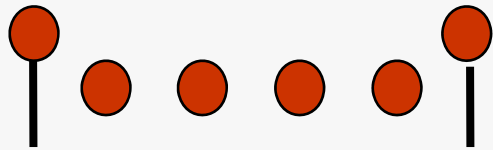
- **Special requirements are in effect for qualified airline crews when operating below 1200 RVR** *(Does not apply to Part 91 operators)*
- **Special markings and lighting are installed at airports to support SMGCS operations**
- **Airports conducting SMGCS operations must also have a published SMGCS Plan**

Surface Movement Guidance and Control System (SMGCS)

Two Levels:

- **Below 1200 RVR down to and including 600 RVR**
- **Below 600 RVR**

SMGCS Marking and Lighting Features



Stop Bar
Lights

Row of red, **in-pavement** lights that when illuminated designate a runway hold position. **Elevated** stop bar lights are additional features at those airports where surface conditions (snow) may cover the in-pavement lights.



Runway
Guard
Lights

Elevated or in-pavement yellow flashing lights installed at runway holding positions.



Taxiway
Centerline
Lights

Green in-pavement lights to assist taxiing aircraft in darkness and in low visibility conditions.



Clearance
Bar Lights

Geographic
Position
Marking

In-pavement yellow lights, when installed with geographic position marking “pink spot”, indicate the designated aircraft or vehicle hold point location on the airport surface.

Pilot Visual Aids for SMGCS

Taxiway centerlines on SMGCS routes are 12 inches wide and highlighted in black.

Pilot Visual Aids for SMGCS

Elevated runway guard lights “Wig Wags” are located on both sides of the hold position markings for SMGCS runways. If the runway intersection is over 150 feet wide, runway guard lights are installed in-pavement in front of the hold position marking at 10 foot intervals. These flashing yellow lights are used to enhance the identification of runway hold positions during low visibility operations. Runway guard lights may also be used at “high alert” intersections at other airports.



Elevated Runway Guard Lights - “Wig Wags”

Pilot Visual Aids for SMGCS

Runway Guard Lights are installed at all hold positions for SMGCS runways

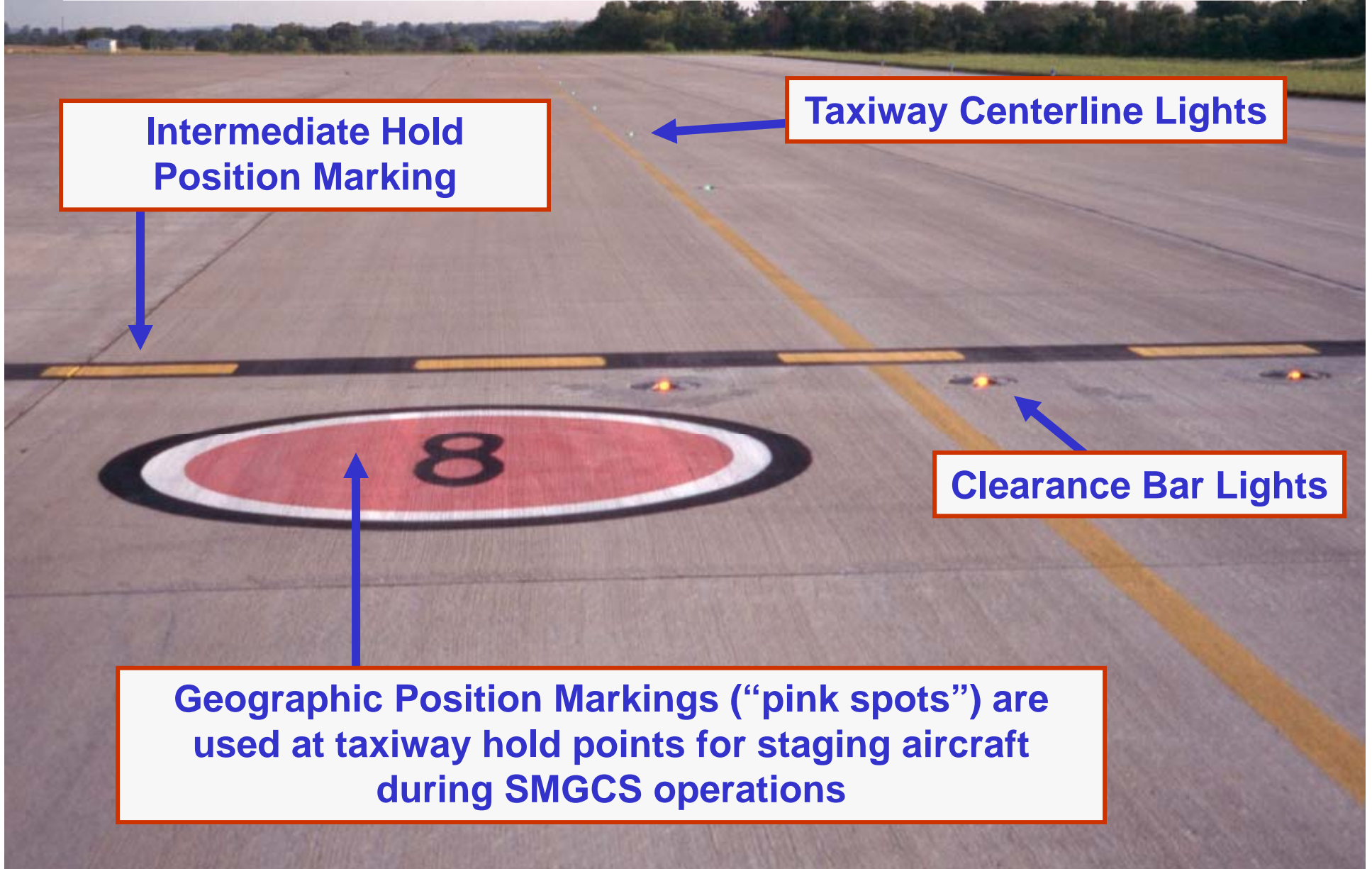
Additional SMGCS Pilot Visual Aids at Airports Approved to Operate BELOW 600 RVR

**Intermediate Hold
Position Marking**

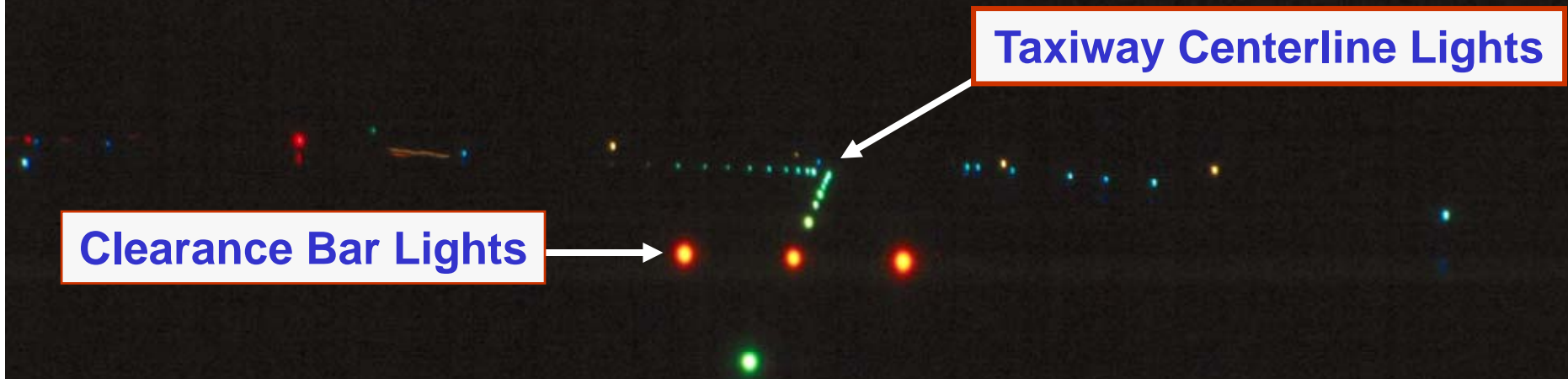
Taxiway Centerline Lights

Clearance Bar Lights

**Geographic Position Markings (“pink spots”) are
used at taxiway hold points for staging aircraft
during SMGCS operations**



Additional SMGCS Pilot Visual Aids at Airports Approved to Operate BELOW 600 RVR



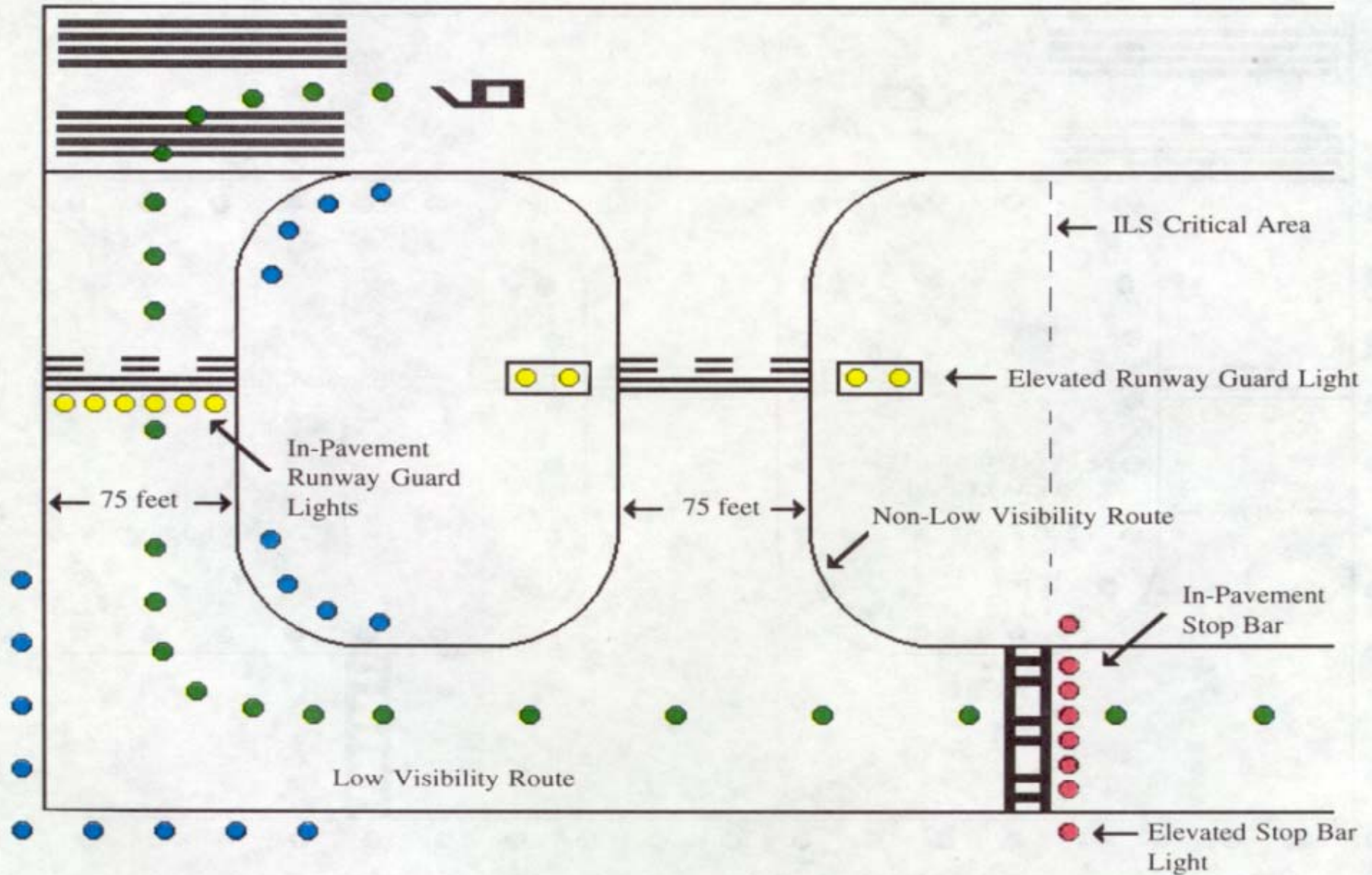
**To support airline operations below 600 RVR,
Clearance Bars are installed at hold points on
taxiways. Taxiway centerline lights are installed on
all SMGCS routes**

Additional SMGCS Pilot Visual Aids at Airports Approved to Operate BELOW 600 RVR

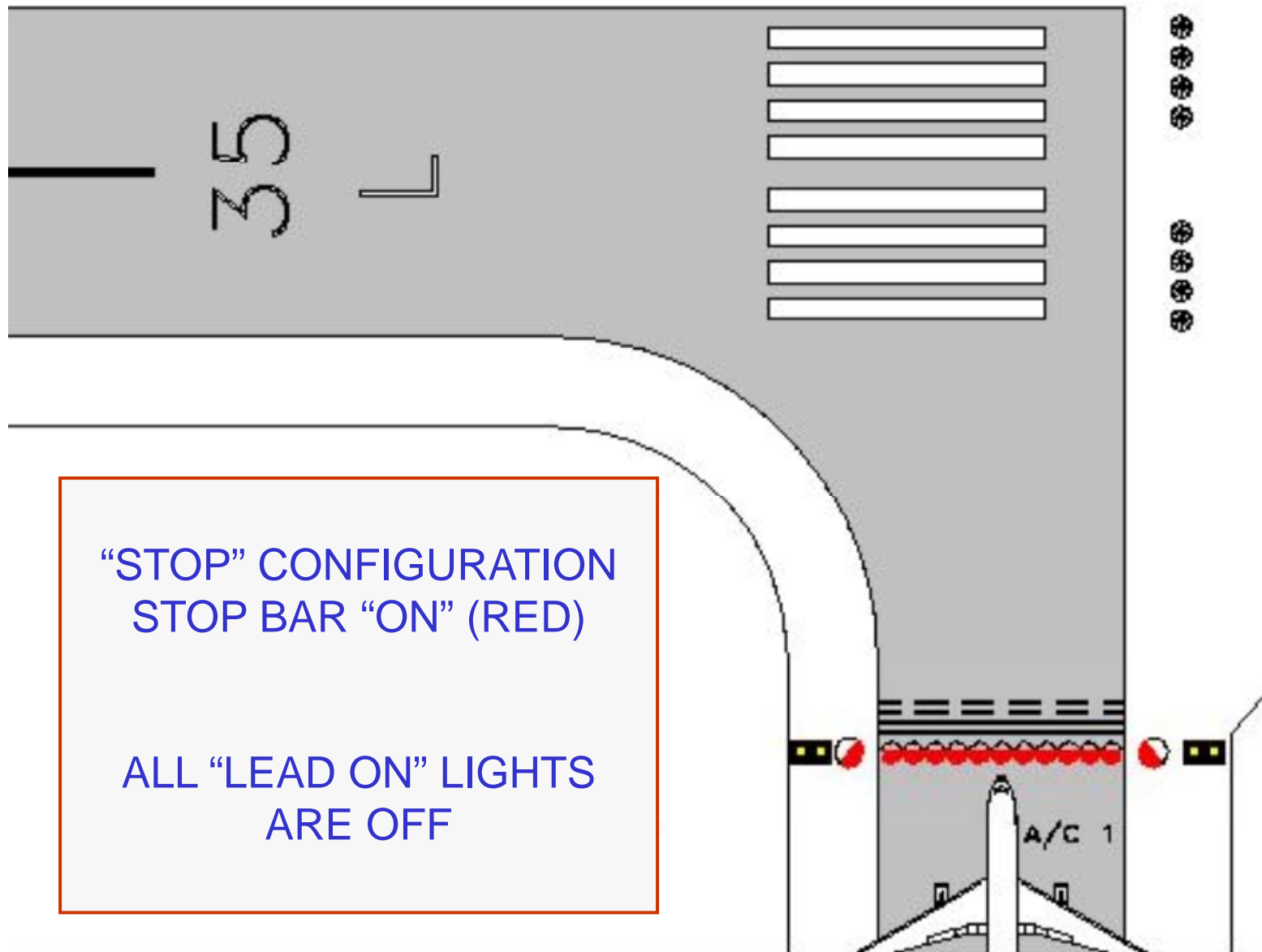
**Stop Bar light fixtures are
located across the taxiway
pavement and are 9 feet 10
inches apart**



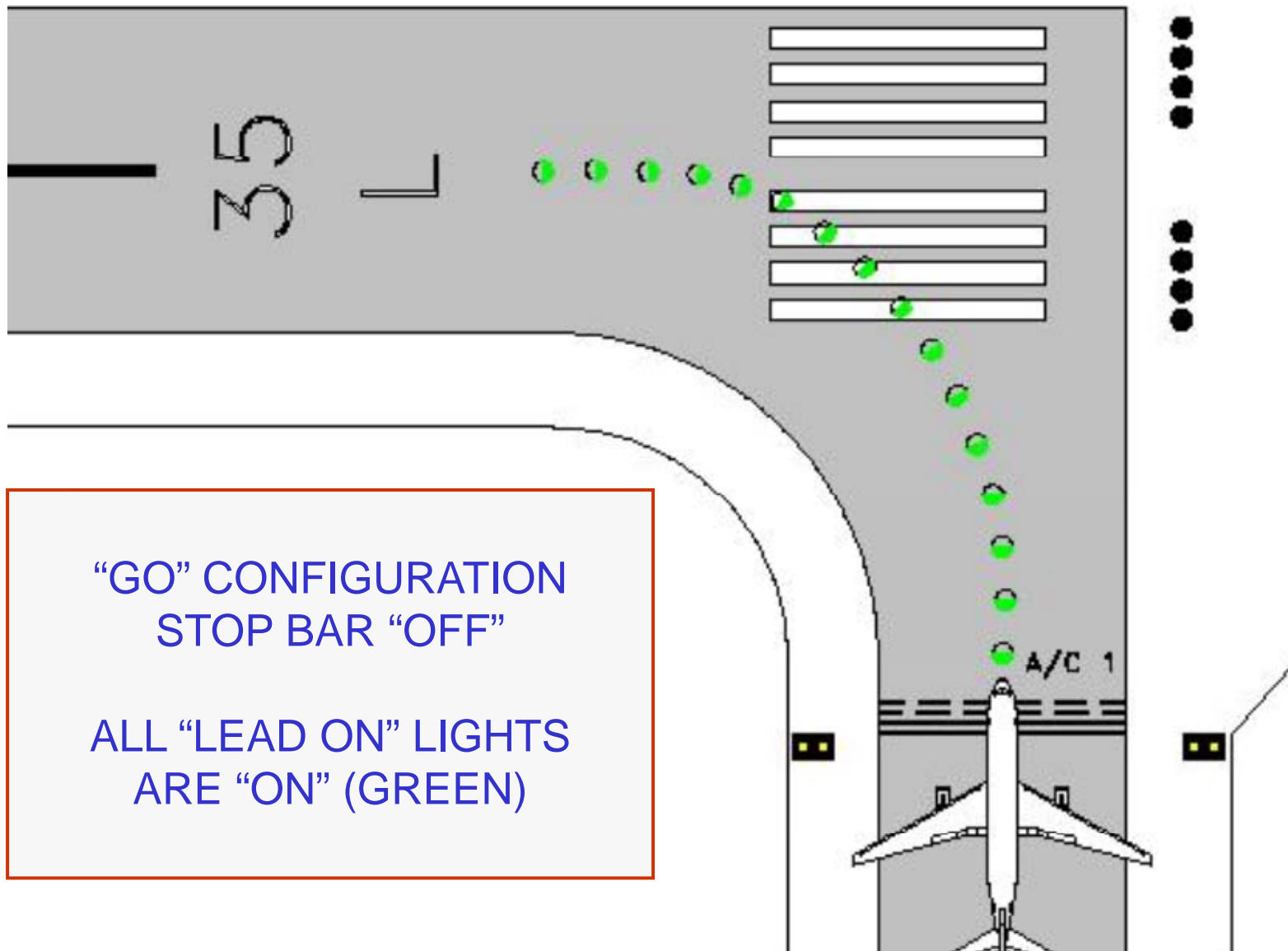
Example of SMGCS Lighting - Below 600 RVR



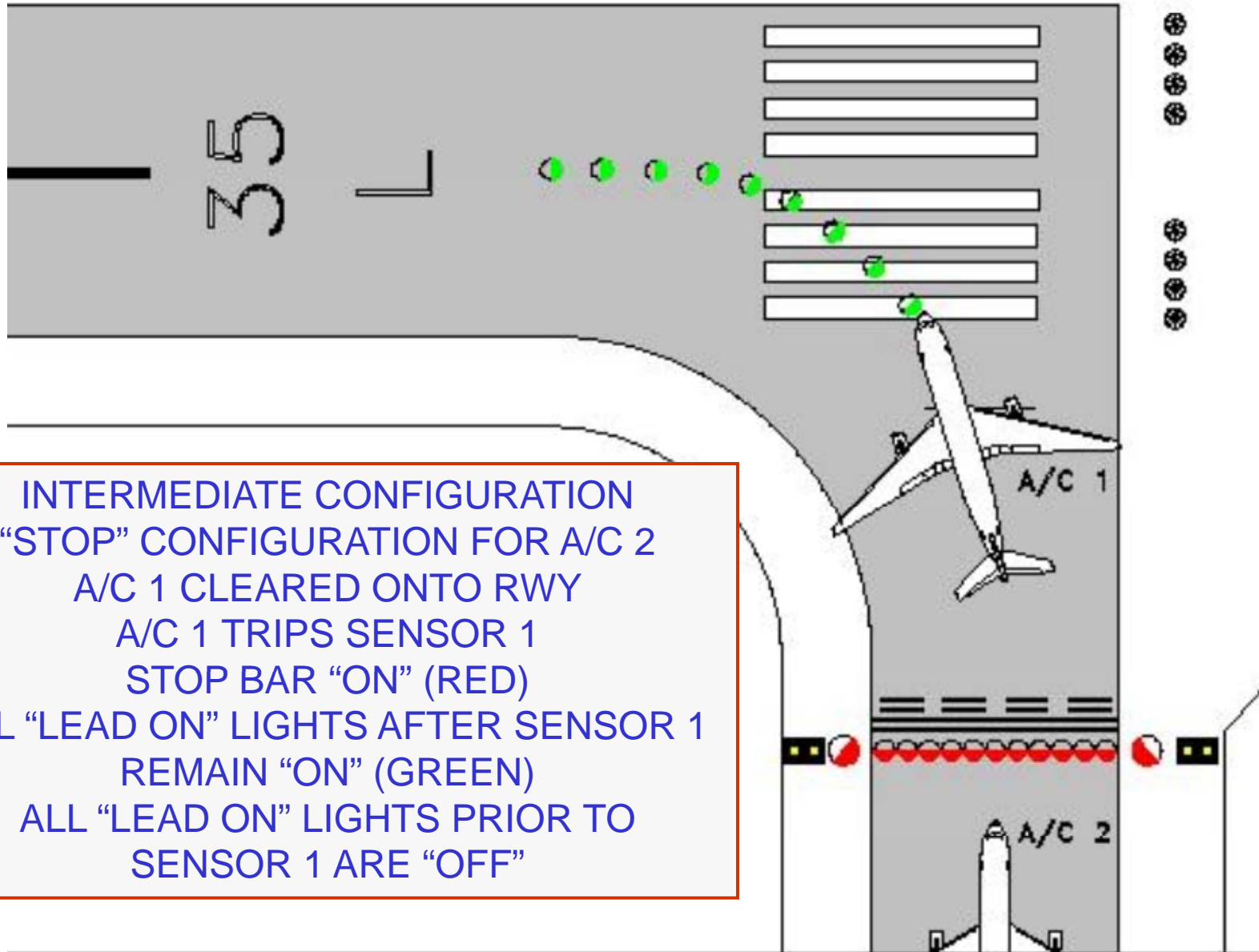
Pilot Visual Aids for SMGCS - BELOW 600 RVR



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