



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

SAFO

Safety Alert for Operators

SAFO 18010
DATE: 09/12/18

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO.

Subject: Procedures for Avoiding Obstacles Lighted with Light-Emitting Diode (LED) Obstruction Lights While Utilizing Night Vision Goggles (NVG)

Purpose: This SAFO emphasizes the importance of incorporating procedures for the avoidance of obstacles marked with LED obstruction lights during NVG operations into manuals and/or Standard Operating Procedures (SOP).

Background: A helicopter-air-ambulance pilot utilizing NVGs recently reported a near miss with a tower marked with LED obstruction lighting. This may have occurred because some LED lighting systems fall outside the combined visible and near-infrared spectrum detected by NVGs. An unaided crewmember saw the tower that was not seen by the pilot utilizing NVGs.

Discussion: In 2009, the FAA issued SAFO 09007, Night Vision Goggle (NVG) Advisory Pertaining to Certain Red Color Light Emitting Diodes (LED). The SAFO advised operators using NVGs that certain LED lighting systems fall outside the combined visible and near-infrared spectrum of NVGs, and thus will not be visible to flightcrew using NVGs. It recommends pilots be advised of the limitations associated with LED obstruction lighting and that such information be incorporated into the pilot NVG training programs. The Federal Aviation Administration now adds an additional recommendation that air carriers/operators and Title 14 of the Code of Federal Regulations Part 91 operators that utilize NVGs incorporate procedures into manuals and/or SOPs that require periodic unaided scanning when operating at low altitudes and when performing a reconnaissance of landing areas. This may be accomplished by looking under or to the sides of the NVGs or by briefly placing the NVGs in the stowed (flipped-up) position. Manuals/SOPs should include crew-resource management procedures for addressing LED-lit obstructions to the pilot flying. For instance, non-flying personnel should make periodic unaided scans and “point out” the obstruction(s) to the pilot, e.g. “LED lit tower, two o’clock”. It is also recommended that a landing be aborted and/or a climb to a higher altitude be initiated any time the location of an obstruction is not clear to the pilot.

Recommended Action: Airplane and rotorcraft operators and pilots should familiarize themselves with the information contained in this SAFO. In addition, operators and pilots are encouraged to report encounters with obstructions marked with non-NVG compatible LED lighting systems, with pertinent information, to the Aviation Safety Reporting System. The submission form and procedure for submission can be found at <https://asrs.nasa.gov/>.

Contact: Questions or comments regarding this SAFO should be directed to the Air Transportation Division’s Part 135 Air Carrier Operations Branch at (202) 267-8166.

Distributed by: Air Transportation Division