

# C4802 Brief Guide

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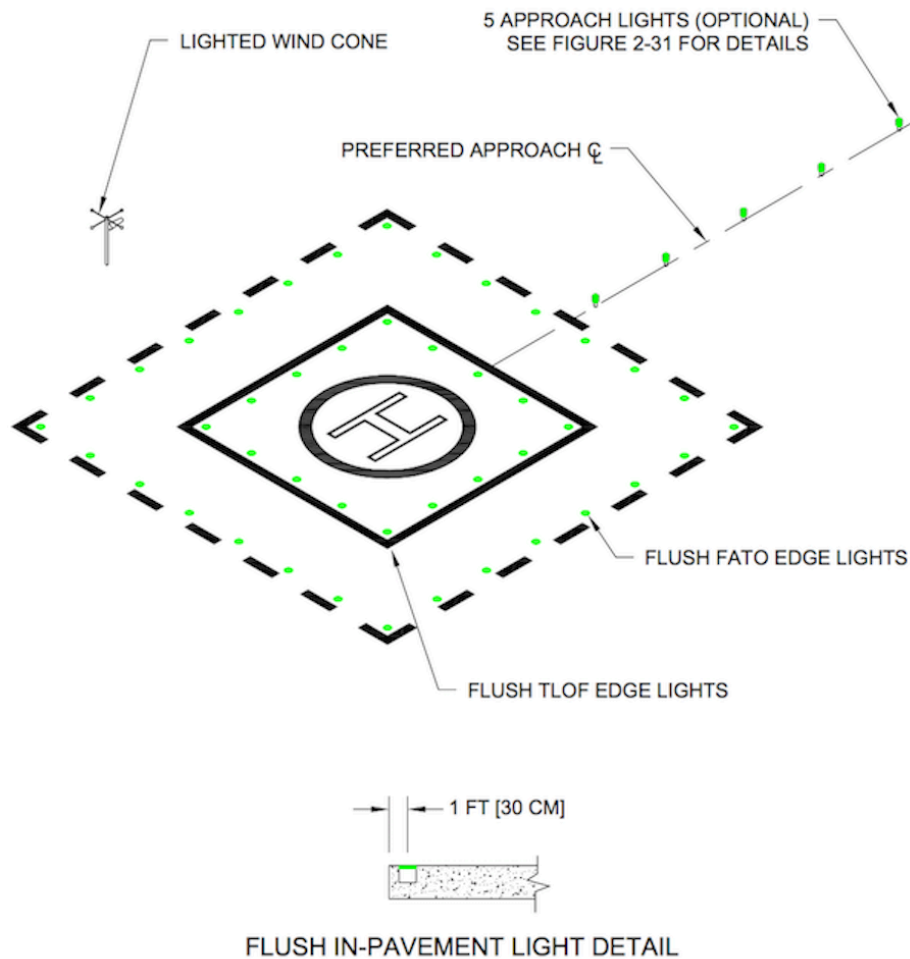
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Curriculum Basis: CNATRAINST 1542.156D

## **Landing Zone Lighting**

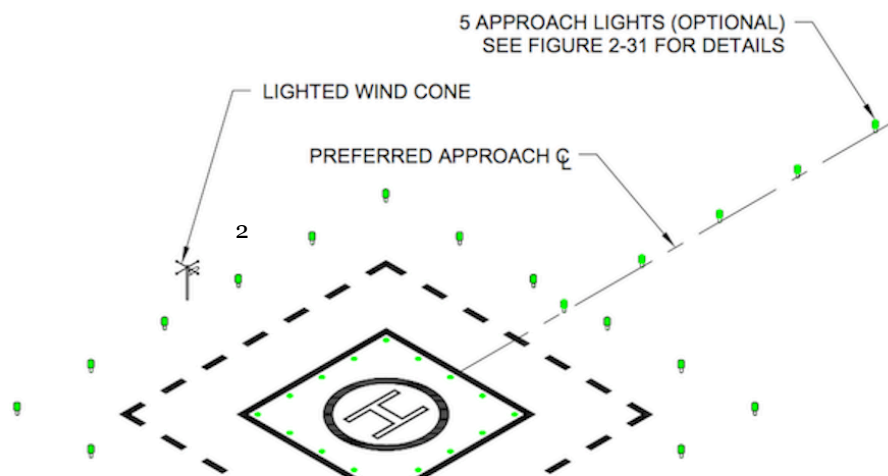
General aviation heliports ([FAA AC 150/5390-2C.216](#)): - Final approach and takeoff (FATO) zone is marked in raised or flush green perimeter lights - Touchdown and lift off (TLOF) zone is marked in flush green perimeter lights. - Floodlights may be used to illuminate the parking area and/or in lieu of green perimeter TLOF and FATO lighting. - Landing direction lights are a line of 5 green lights showing the preferred landing direction. - Heliport beacon flashes white/green/yellow at 30 to 45 flashes/min. - Lighted wind sock. - FAA recommends marking objects that penetrate an 8:1 object identification surface. ([FAA AC 150/5390-2C.217](#))

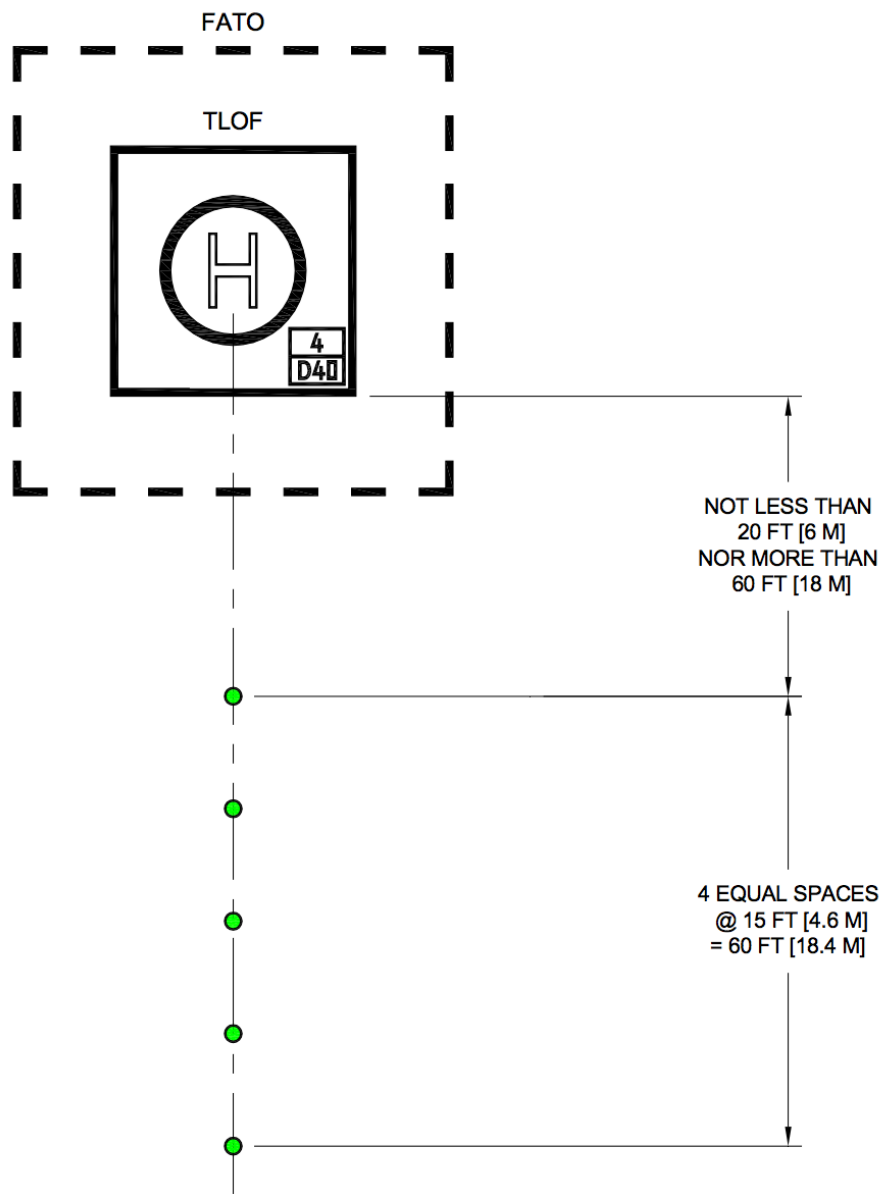
## Flush lighting



### Notes:

1. Install flush FATO and TLOF perimeter lights inside or outside within 1 ft [30 cm] of the FATO and TLOF respective perimeters.
2. Overall length and weight limitation box is omitted for clarity.

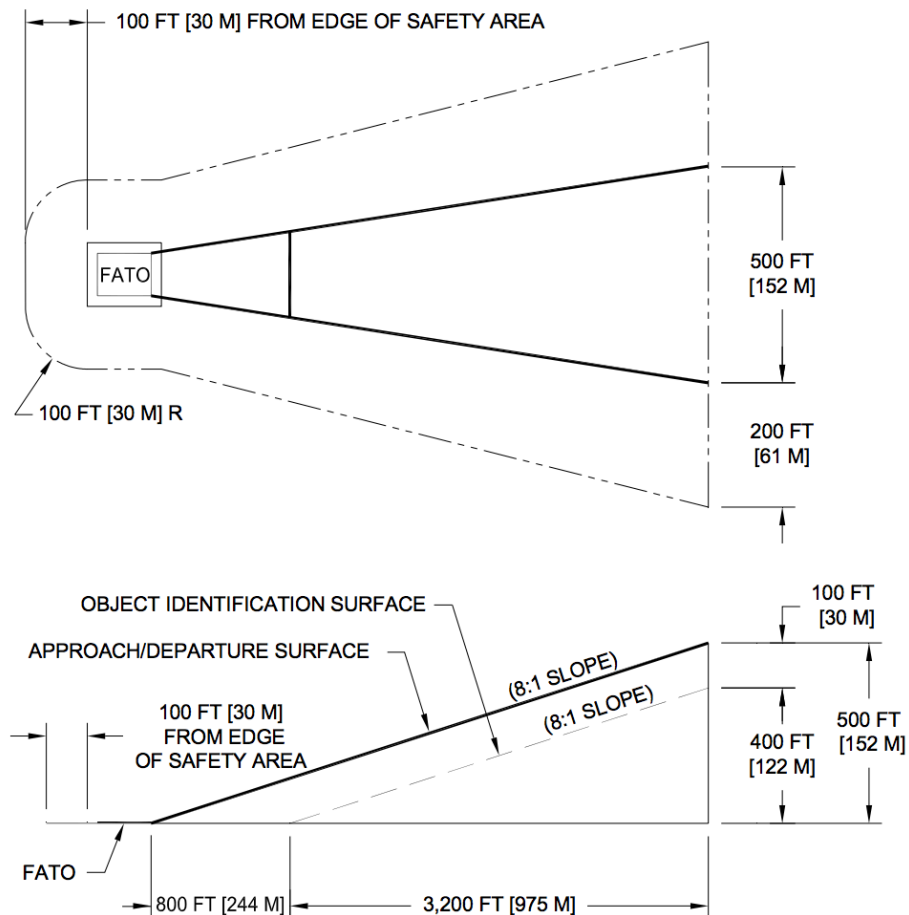




LEGEND

### Landing direction

● OMNIDIRECTIONAL GREEN LIGHTS



### ### Object Identification Surface

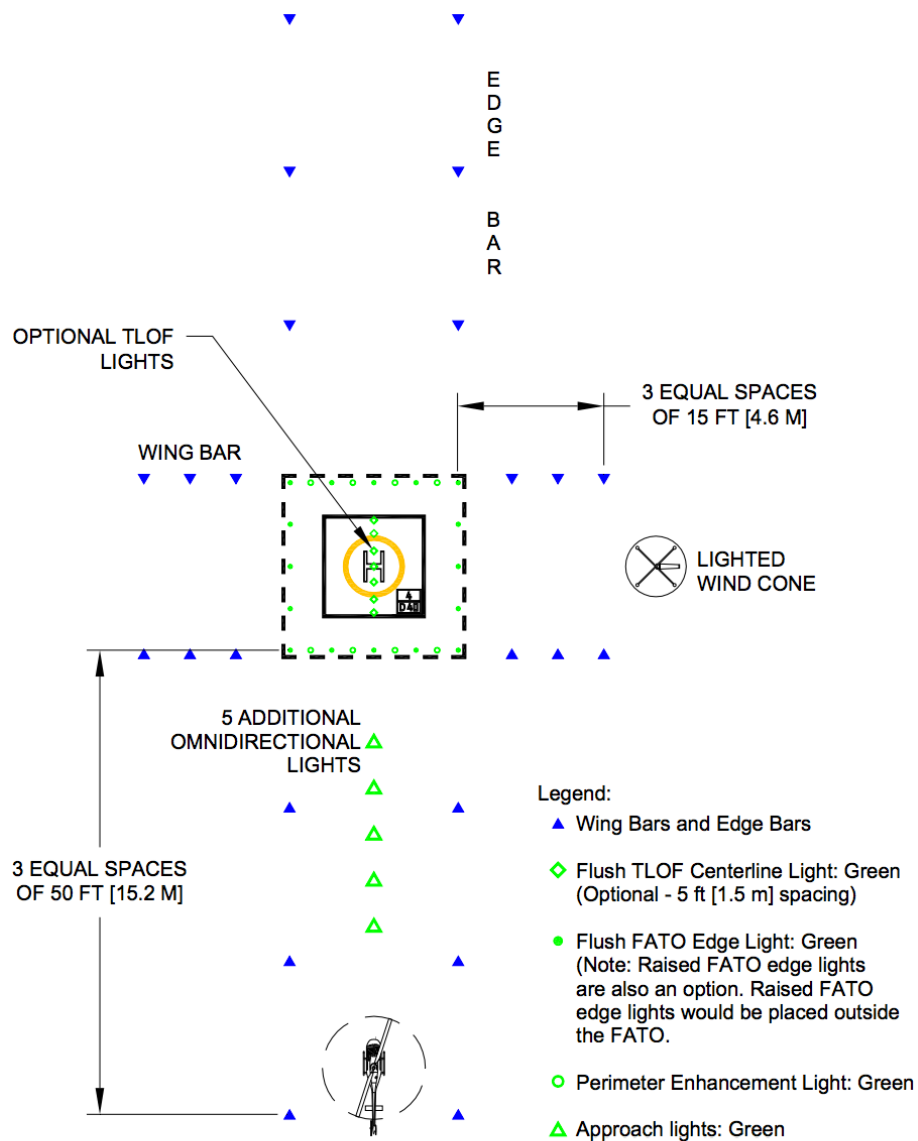
Heliport instrument lighting system (HILS): - The HILS consists of 24 unidirectional white lights that extend the FATO perimeter lights. - The system extends both the right and left edge lights as “edge bars” and both the front and rear edge lights as “wing bars,” as shown below:

## HILS

## Use of lights

RWOP 3.1.2; TH-57 NATOPS 7.7:

- General Operations: POSITION - ON 30 min before sunset until 30 min after sunrise. Anti-collision lights on from engine start to shutdown.



Note: The depicted HILS installation is appropriate to a minimally sized heliport located at an elevation up to 1,000 ft [305 m] above mean sea level.

Figure 1: HILS

- NDZ Ops: Below flight idle: POSITION - FLASH/BRT. In the line: POSITION - STDY/BRT, ANTI-COLLISION - OFF. Crossing hold short: ANTI-COLLISION - ON, POSITION - STDY/BRT.
- Maintenance required: POSITION - FLASH/BRT.
- Taxiing through pits without refueling: SEARCHLIGHT - FLASH.
- Cleared under rotor arc: LDG LIGHT - FLASH.

CNAF 5.1.1.2:

- Anti-collision lights may be secured at anytime their use adversely affects ground operations, or anytime the aircraft is in the clouds.

TH-57 Contact FTI 804:

- During pre-start checks, adjust cockpit lights to their lowest intensity.
- Non-tactical flights > 500 ft, instrument and panel lights may be illuminated.
- Adjust interior lights to their lowest practical level.
- When flying off instruments, adjust lights to higher intensity, but turn them back down prior to landing to enhance night vision.

## **Aircraft Emergencies at Night**

TH-57 Contact FTI 809:

- Same as day except will normally take longer due to increase physiological stress and reduced vision.
- Know the location of everything in the cockpit to increase EP efficiency.
- Forced landings: use landing light and any power available to reduce descent rate to identify safe landing area.

## **Landing Site Evaluation at Night**

TH-57 NTAOPS 17.7.2; TH-57 Contact FTI 810:

- Become familiar with the terrain you will be flying over.
- Use landing light to observe obstructions and select landing area.
- SWEEP checks:
  - (S) Size, slope, surface, suitability;
  - (W) Winds, loss of wind effect;
  - (E) Elevation (AGL, PA, DA);
  - (E) Egress route (including waveoff direction);
  - (P) Power (required vs. available).

## Night Vision

FAA Airplane Flying Handbook Chapter 12: - Avoid bright light (especially white). - Takes at least 30 minutes for eyes to become fully dark adapted. - Can lose adaptation in a few seconds on exposure to bright light. - Eyeball anatomy: - Cones sense color and are concentrated in the center of the retina (fovea); - Rods sense light in black and white and surround the fovea; - Cones lose effectiveness under low light, however rods are still effective. - When fully adjusted to darkness, rods become 100,000 times more sensitive to light than they were under lighted conditions.