



Why Linear Visual Aids for Helipads are Better!

The above picture is from a helipad in West Hartford, Connecticut, USA using LEDline®. The helipad is used by the local hospital as a nighttime Emergency Medical Services (EMS) helipad, hence the lit “H” and lit aiming circle. Such linear visual aids clearly mark the touch down area, allowing EMS pilots to land more gently, which is especially important when carrying injured patients.

Copyright of Mr. Bruce Lomasky, the video of the USA helipad can be found on our web site www.ledline.net under the Helipad section, or is on YouTube™ at <https://youtu.be/9Q3vCXEab2o>

As can be seen from the video;

- **Even approaching or hovering directly over the helipad, there is no glare from our linear lights to distract pilots.**
- From distances, compared to point sources, linear lights also much better define the helipad area at **all approach angles**. This means that at night from distances, a helipad’s dimensions can be easily seen at even low approach angles. This way, **the linear visual aids improve the safety of the helipad by allowing pilots to view the helipad area from a whole variety of approach angles.**

Point Source Visual Aides:

- At night, due to everyone’s nighttime lack of depth perception, unless one is almost on top of a helipad’s point source visual aids, it’s difficult for pilots to see the area of a helipad, especially at low approach angles. At such, from distances, with the point source visual aids pilots with low approach angles, see a confusing mix of points of light. Because of the depth perception issues, pilots cannot determine which light is in front of

which, or which light is beside another, so there is no easily discernible pattern. Again, this is confusing, which slows down the helipad target acquisition, which for hospitals needing critically injured patients to be delivered as soon as possible, is an issue.

- In addition, in cities with myriads of point source lights, it is often even difficult to pick out the point source helipad landing area visual aids with all the other background point source lights, another possible area for pilot confusion and delay. **Linear lights look different, so are far more easily seen.**

Linear LEDline® Visual Aids:

- With linear lights, because of their linearity and the various angles lit linear sections make, even at low approach angles, pilots still clearly see the helipad's defined area, so there is no confusion.
- Helipad linear visual aids look different, so are far more easily seen, especially within cities where there are millions of similar point source lights.

Please Note: For those who do not believe that linear lights provide for so much better helipad definition, thus improving both the visibility and the safety of the helipad, please view the enclosed pictures. In addition on our web site www.ledline.net video of our early extruded linear LEDline®, used at the Downtown Manhattan Helipad, FAA / Port Authority New York and New Jersey (PANYNJ) Linear Helipad Trials, published by the FAA Nov 1999 (DOT/FAA/ND-99/1), is available. **Note:** The FAA document includes the raw data from the Pilot survey reports, very favourably, as well as the Port Authority of New York and New Jersey letter on how much better were the linear visual aids.

Identical nighttime same angle pictures of the Downtown Manhattan helipad; Copyright Port Authority New York and New Jersey.

Downtown Manhattan Helipad Before.

With only the FAA point source visual aids

Downtown Manhattan Helipad After.

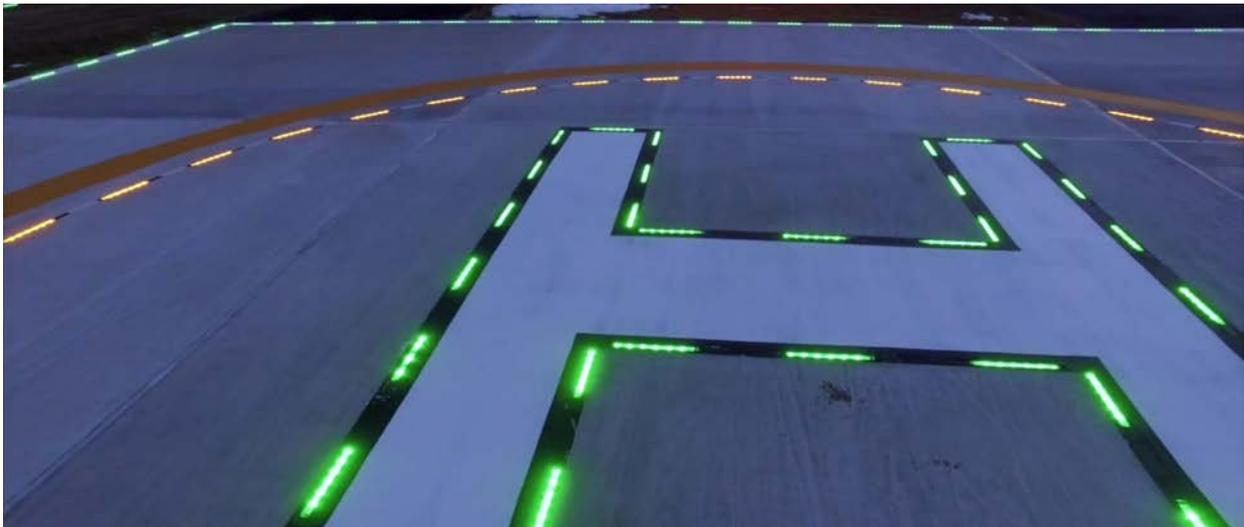
With FAA point sources and linear LEDline®



A video of this trial can be found at www.ledline.net under the helipad section. **The video documents both standard FAA helipad point source visual aids vs. linear visual aids on the same helipad. Directly comparing the two visual aids clearly demonstrates why linear lights at all approach angles are better so why the pilot's ratings there were so favourable.**

The video allows you to judge for yourself why linear visual aids are better at defining the helipad area. (For those wishing to receive copies of the FAA's report, please contact the FAA or HIL-Tech Ltd).

A pdf drawing of the helipad is available and demonstrates how each of the induction powered visual aid elements; the lit "H"; the Aiming Circle; the TLOF; and the FATO can be individually adjusted as to any desired intensity.



The LEDline®: The induction powered (non-contact) LEDline® used here was our omnidirectional LEDlineHB™ with embedded 6 LEDs. Each LED had a silver dot over the lens preventing the vertical 90° degree light from being seen by the pilots, so preventing pilot glare when hovering and landing.

The whole helipad area, with this 6 LED system, is highly visible summer or winter. (**Note:** all LEDline® units melt snow without needing additional heating elements). However, should there be a wish for even brighter, daylight visible helipad visual aids, one could always use our embedded 12 LED system, visual aid system LEDlineSunHB™.

As with the hospital helipads in Australia and the UK, the enclosed USA helipad pictures and video clearly demonstrate how linear visual aids much better define the helipad area, improving helipad safety.

Nick Hutchins Feb 2016