

2020 / Case Study

# New Airpark Uses Avlite LED Lighting to Enhance Aviation Safety

*Texas, USA*



*"We Believe Technology  
Improves Navigation."*

“The Avlite Series 3 PAPI is as good as anything I’ve used at a CAT 1 airport. We [the pilots at The Landings Airpark] can clearly see the [Series 3 PAPI] lights from 10 miles out and the transition lines are incredibly clear! We are extremely happy with the quality of the lights and the support we’ve received from Avlite, and would highly recommend them to other fly-in communities.”

### Mark Wagner

*The Landings Airpark  
HOA member,  
Aircraft Owner and Pilot*

### Product Overview

**Application:** Airfield

**Date:** 2020

**Products:**

- AV-426 Airfield Light (Solar LED Runway Lighting)
- AV-Series 3 PAPI (Precision Approach Path Indicator)
- AV-PALC (Pilot Activated Lighting Control)

## New Airpark Uses Avlite LED Lighting to Enhance Aviation Safety

### Industry

Residential Fly-In  
Community

### Headquarters

Texas

### Founded In

2009

### Background

Pecan Plantation is a 4,200 acre, residential fly-in community. It is located approximately 30 miles outside of the Dallas/Ft. Worth metropolitan area. The land includes parcels of one of the largest pecan orchards in the USA and is thickly forested. Amongst the amenities for the 3,200 residential lots is The Landings Airpark.

As one of the newest subdivisions within Pecan Plantation, The Landings Airpark is the second of two airparks in the community. The Landings Airpark consists of a paved, 3,100 ft runway, paved taxiways, and a fuel station, surrounded by mature pecan trees. Homeowners enjoy on-property plane hangars, runway frontage, and direct taxiway access to the runway from the 30 current homes, as well as numerous platted lots for future home sites.

The original scope for the airpark was for day VFR only. After discussions within the subdivision’s homeowner’s association (HOA), airfield lighting was desired to provide navigation aid when flying at night or landing in inclement weather.

### The Challenge

The new airpark was located in a quiet area, thick with mature trees and very dark at night. Power lines loomed only 1700’ from the runway. Therefore, the new airpark was limited to daytime operations only.

Several pilots within the HOA began to research airfield lighting options. They wanted to ensure whoever flew into their airpark did so as safely as possible.

The HOA pilots identified approach and runway lighting as imperative to safely flying at night. But they also wanted to ensure their airfield lighting purchase would be well supported. Additional considerations for their purchase included the following criteria:



*The solar AV-426 can be used in several configurations, including runway edge, threshold and approach. No cables or trenching required!*

- Proven track record in manufacturing solar and AC powered LED airfield lighting
- Exceptional references for product reliability
- Operational for 10+ years
- Excellent reputation for customer service
- Options that included pilot activated lighting control (PALC)

A strong endorsement for Avlite's airfield lighting was given to a member of The Landings HOA. The recommendation came from a pilot for a large, international, commercial carrier who also lived in a fly-in community. His association had installed Avlite airfield lighting and was extremely satisfied with the products and the company.

## Solution

The HOA decided to outfit The Landing Airpark's new airfield with Avlite's Series 3 Precision Approach Path Indicator (PAPI) and AV-426 solar LED runway lights.

The Series 3 PAPI was critical for safe approaches because of the obstructed flightpath at The Landings Airpark. Trees, power lines, and houses all posed a risk to safe navigation. The Series 3 PAPI was installed on the new airfield in an AC powered, L-880, 2 box configuration. It is also available as an L-881/4 box system. Pilots on approach at The Landings Airpark use the Series 3 PAPI at dusk to stabilize their incoming glide slope and flight path, allowing extra time to view deer, hogs, and other local wildlife that poses a risk to aviation safety.

Avlite's Series 3 PAPI features the sharpest red/white transition line and the most uniform intensity of any LED PAPI. It also offers the lowest power consumption of any LED PAPI, resulting from proprietary, patented LED technology. The Series 3 PAPI is Intertek certified to FAA AC 150/5345-28H standards for Style A, Class 1, and holds an FAA National Buy American Waiver. Its compact size was ideal for Pecan Plantation's newest airpark and offered them a variety of power options, including DC/solar, AC, and constant current power configurations.

The Landings Airpark also installed Avlite's AV-426 for solar LED runway lighting. The AV-426 features four, integrated and user-replaceable solar panels to provide over 100 hours of operating time. The AV-426 solar LED airfield lights to use Avlite's proprietary AvMesh communication protocol. This allows each light to function independently of one another within a light group for optimal lighting flexibility. Intensity settings can be easily adjusted for local conditions and specific locations.



*The Series 3 PAPI is Intertek certified to FAA AC 150/5345-28H. Patented LED technology provides the highest intensity, sharpest red/white transition line, and lowest power consumption.*

An internal antenna ensures the functionality of important optional features such as radio frequency (RF) and pilot activated lighting control (PALC). The use of Avlite's AV-426 also allows the airpark to invest in GPS/RNAV non-precision approaches in the future for increased safety in IFR or low-weather conditions.

The Pilot Activated Lighting Control (PALC) allows the pilots of approaching aircraft to simultaneously activate and control the intensities of the airfield lights using a discreet VHF frequency. Three VHF clicks will put the lighting system into a low-intensity mode, five clicks to medium intensity, and seven clicks to high intensity. PALC provides reliable, proven, and on-demand light visibility for aircraft on approach and during landings.

## Outcome

Aircraft owners at Pecan Plantation's newest airpark have complete confidence in the airfield lighting solution provided by Avlite. They now have the ability and confidence to fly at night and land in a variety of VFR night conditions with the option for IFR approaches in the future. They know their investment in airfield lighting will increase their property value, and be reliably supported by Avlite today, tomorrow and into the future.

# Contact Us!

Avlite's airfield solutions are easy-to-install and scalable. We have a solution for every budget.



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