



Who we are and what we do

Lanthan Safe Sky is the first certified manufacturer of Aircraft Detection Lighting Systems (ADLS) based on transponder signals. We offer a sustainable solution that will end incessantly flashing obstruction lights and bring back dark night skies.

Lanthan Safe Sky (LSS) is the market leader in Germany with some 5.000 onshore WTGs under contract, an even stronger position in the offshore market and a first series of international projects. Our origins go back to three companies from the aviation, lighting and wind turbine engineering business. Therefore, we offer a unique mix of wind and aviation expertise.



www.lanthan-safe-sky.com



Our technology

Our ADLS locates air traffic on the basis of aircraft transponder technology – an essential element used by aircraft to avoid collisions and manage airspace. While carried by the majority of aircraft during the day, transponders are mandatory in many countries at night.

Thus, we can switch off the red obstruction lights at wind turbine generators (WTGs) when they are not needed, as is the case when there are no aircraft in close proximity to the WTG.

Our mission: Boosting wind farm acceptance

Aircraft-detection lighting systems (ADLS) eliminate a central objection of residents living near wind farms: the blinking at night.

Acceptance among the broader public is a key factor for the success of wind power, especially among those directly affected by it: the residents and the environment.

We offer solutions for any application, single turbine, large sites as well as offshore projects.

This involves site-specific engineering to ensure we can detect aircraft even at ground level, identifying possible modifications of the WTG lighting system, preparing documentation for the approval process with the relevant authorities, installing the equipment, demonstrating performance and finally sending the signal to safely turn off the lights when there is no aircraft around.

What are the advantages of transponder-ADLS vs radar?

Aside from the fact that it is free from emissions and does not require frequency assignments, the most significant advantage is that it safely detects aircraft flying at very low altitudes. While radar-based systems are faced with limited coverage close to the ground because buildings, vegetation, and terrain cover the signal flow, our transponder-based technology sits at the top of the WTG nacelle and we can install it in sufficient quantities to provide full terrain coverage.

Our fully developed and field-proven detection technology is not only based on all legally required signals but analyses further aviation signals coming from aircraft. Also, radar is only economical when used on very large wind farms while transponder ADLS is modular and suitable for both small and large sites. Another benefit is that maintenance costs are very moderate.

What sets us apart from other ADLS manufacturers

We offer a unique blend of aviation and wind energy expertise and have carefully designed our system to meet the requirements of both worlds from the outset. That's why we don't need flight trials for the implementation. Our detailed WTG knowledge allows us to easily integrate with hundreds of WTG models. We also regularly support our international customers in working with authorities who want to implement ADLS regulations yet lack the practical knowledge of how to turn the lights off while maintaining airspace security.

With a dedicated monitoring and support team, we ensure the lights are off whenever it is safe to do so.



Status quo across Europe

United Kingdom:

regulatory framework in preparation

Netherlands:

regulatory framework in place, first deployments

Germany:

regulatory framework fully in place, large scale deployment

France:

first on-site tests successful, regulatory framework to be expected

Austria:

first on-site tests successful, regulatory framework to be expected



Are you interested in joining us?
Have a look at our job opportunities!

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