

AVIATION PROJECT CASE STUDY

# Spanish Military Airbase



We've worked on numerous military airbase projects around the world. As you'll understand, they've all been extremely sensitive and strictly confidential. So, there's little we can say about this one other than it was for the Spanish Air Force who shared the base with NATO.

However, what we can also tell you though is it was one of the most exciting and challenging projects we've had.

## The challenge

The High Pressured Sodium (HPS) fixtures on the base's existing masts were failing and needed a lot of maintenance. The masts they had were static, not 'raise and lower'. This was presenting them with continuous health and safety issues involved in having people working at high levels up the mast. They also had additional problems, such as employing contractors with security clearance to work at the airbase. So, they were looking for a more reliable LED solution.



Other things any lighting partner would have to tackle included:

The layout and illumination required at a military airfield are vastly different from a civilian one. They both have to cope with a huge number of aircraft taking off, landing, refuelling, and being maintained at night. But a military airfield's massive surface area has to be illuminated by a just a few remotely located masts.

Any airbase must stay fully operable while a new system is installed. This meant the



solution at this base had to be a retrofit one. This in turn involved applying modern LED technology to masts that were designed many years ago.

- The masts already installed at the base needed to provide high quality, symmetric lighting over the airfield's large area. So, an extremely high powered solution was essential.
- The aircraft using the airbase, e.g. fighter jets and bombers, are very different from those at a typical airport. With military pilots sometimes using night vision devices, this presented a unique glare issue.
- Despite being a military airbase, meeting International Civil Aviation Organization (ICAO) standards was called for.
- And last, but by no means at all least, reliability was key. There can be no 'downtime' for a military airbase. Ever.

## Our solution

The airbase couldn't find a specialist LED lighting company in Spain that could meet their high demands. So, they turned to us.

Having worked on other military airbases they were able to check, and were assured, our information security protocols met military levels. They also learned we could be 100% trusted to deliver what we promised.

The first step on the project was to send members of our specialist Design and



Engineering Teams to the airbase. They assessed what was specifically needed for the base. And calculated how we could deliver the high quality, high powered lighting necessary to cover the extremely large apron area.

The solution they arrived at was to use our Modus R 1200 lighting system.

The Modus R 1200 is a lightweight, exceptionally versatile, reliable, and long-lasting product – designed for both retrofit and new build projects. It lets us place a lot of quality, low glare light far away from where it's based. Its range of proprietary optics and visors also means we can meet a client's specific needs when others can't.

Our design solution showed we could provide exactly the lighting needed – with 20 Lux and a 4:1 Uniformity across the whole field.

To prove its effectiveness, we set about an 'in-life' trial. The client was convinced. And we began the task of upgrading the whole airbase.

With our engineers on-site to ensure the light aiming followed our designs precisely, the entire project was delivered in just three months.