AdvanceGuard®

Future-Proof, Scalable Perimeter Surveillance

Case Study - Shannon Airport, Ireland

Shannon Airport, a hub for civilian and military flights, experienced incursions of protestors transpassing the airfield. Having tried various other approaches to perimeter security, Shannon found a great solution with Navtech's AdvanceGuard.

Safety is everything.

NAVTECH RADAR

The Challenge

Shannon Airport, a key hub for military and civilian aircraft, and sometimes a target for protestors, needed reliable intruder detection and tracking solution that would scale with the site and provide full situational awareness.

Shannon Airport

Shannon Airport in County Clare, Ireland, is the third-busiest airport in the Republic and an important destination and transit point for both passenger and military aircraft. As well as an airport and associated buildings, the site also contains engineering works and is therefore both busy and complex.

A mixture of tall trees and farmland surrounds Shannon. Wildlife activity can trigger nuisance alarms in conventional surveillance systems.

Shannon Airport has a particular need for perimeter security because its use by the US military has led to incursions and protests, and subsequent publicity. By 2016 airport managers had tried multiple approaches to perimeter surveillance, but all fell short of requirements. Shannon Airport approached Navtech Radar with a view to securing the perimeter and ensuring constant and site-wide situational awareness.

The airport needed a comprehensive, future-proof perimeter surveillance solution that would also provide real-time situational awareness. The solution also had to scale and grow with the airport's needs and with advances in technology.

Shannon Airport is a complex site often targeted by protesters. Managers asked Navtech Radar for a future-proof, scalable solution providing 24/7/365 perimeter surveillance and situational awareness, that could flex with changing needs and technologies.

Working closely with Shannon Airport managers and engineers, Navtech Radar has installed a bespoke wide-area surveillance solution. It's based on Navtech's innovative AdvanceGuard product, integrated with existing Milestone VMS technology.

By working closely together, both Navtech Radar and Shannon Airport learn and grow continuously. The airport has a flexible, future-proof solution while Navtech innovates and extends its product's capability and potential.

The Solution

Shannon Airport chose AdvanceGuard, which uses high-definition scanning radar and intelligent rules-based software to protect both sides of the perimeter, and scaled up the system over time.

Navtech Radar worked with management and engineers at Shannon Airport to design a long-term perimeter surveillance system with room for growth. The system is based on Navtech's innovative AdvanceGuard wide-area surveillance solution.

Combining high-definition radar and intelligent, rules-based software, AdvanceGuard is ideal for complex, active sites where legitimate and illegitimate activity may occur together. AdvanceGuard works in all weather and light conditions – including fog, snow, bright sunlight and darkness – and in extreme temperatures.

At Shannon, the original installation was set up to surveil the airport grounds and around 10 metres beyond the perimeter. This required just three radars and immediately provided highly effective perimeter protection and a comprehensive overview of site activity. However, the system has since been extended as, over the years, continuous communication between Navtech and Shannon Airport revealed further potential benefits.

Among the first additions was AdvanceGuard's 'friend or foe' capability. This uses a tagging system to tell AdvanceGuard whether an activity or vehicle is legitimate or not, and to trigger an alarm (or not) accordingly.

For Shannon Airport, the benefits of friend or foe were not limited to surveillance precision; it also enhanced situational awareness by providing easy-to-read, real-time visibility of the location of authorised personnel and vehicles on site, regardless of the weather or lighting conditions. Later, the airport applied AdvanceGuard's integrated ADS-B capability to identify and track aircraft.

The long-term problem of nuisance alarms triggered by wildlife has also been effectively managed using AdvanceGuard's rules-based system. By specifying the size and source location of objects to be detected in specific areas, the number of nuisance alarms have been greatly reduced – airport managers requested a residual amount, because a few such alarms provide ongoing 'proof of life' for the system.

'The precision and scope of Navtech Radar's AdvanceGuard system, with its ability to spot and track intruders with pinpoint accuracy, to reduce nuisance alarms from wildlife and to distinguish between friend and foe, has greatly improved the security of our perimeter and the situational awareness of our security operators. Our working relationship with Navtech, which dates from 2016, has been very productive and we look forward to doing more great work with them in the years ahead.'

**John Francis
Head of Security
Shannon Airport**

AdvanceGuard®

Summary

For both Shannon Airport and Navtech Radar, this installation demonstrates how effective partnership working can enhance the benefits of a security system – for all parties.

For Shannon, the AdvanceGuard system has provided unparalleled perimeter security and real-time situational awareness since 2016, and does so in all conditions. The system has proven future-proof because, as well as being durably constructed, it has been altered and upgraded in light of changing demands. and there is ample potential to do this in the future.

For Navtech, the installation and ongoing development of the Shannon Airport system has created a superb learning environment. It has allowed the company to explore new possibilities and potential offerings.

Looking ahead, both Shannon Airport and Navtech are keen to collaborate and explore further options and even more user-friendly approaches to security and safety.

Navtech Radar Limited
Home Farm, Ardington, Wantage,
Oxfordshire, UK, OX12 8PD

📞 +44(0)1235 832419

✉ sales@navtechradar.com

navtechradar.com