Irish Aviation Authority protects and serves

Recent world events have seen security challenges alter radically from what they were just five years ago. For all things aviation related, there is a particular need for improved security measures. The Irish Aviation Authority (IAA) takes these new challenges very seriously and has put in place a hi-tech electronic security system, supplied by Norbain SD, to ensure the safety of its staff, customers and property.

The IAA is a state owned company responsible for the regulation of air navigation in the Republic of Ireland. The authority is responsible for the provision of air traffic management and aeronautical communications services in Irish controlled airspaceand regulates the safety standards of Irish civil aviation. The Air Traffic Control Centre at Shannon is about 6 years old, sees 280,000 overflights per year and can handles up to 80% of traffic between North America and Europe.

The IAA wanted a system that would fulfil two functions: Firstly, to protect staff, equipment and visitors and secondly to serve as a health and safety tool. "The very nature of our business makes it imperative to deliver a consistently high level of service," says Gerry Guihen, Property and Security Manager for the Irish Aviation Authority. "To do this, our security system must be able to ensure that all our assets are protected and secure at all times."

Along with the Control Centre, four long range radar sites and two air traffic radio communication sites were selected for the initial phase of installations, four in Shannon, one in Cork and one in Mayo.

Finding the right partners

Obliged under EU rules to enter into a procurement process and issue tenders, Mr Guihen set about finding the right company for the job. "It wasn't just a matter of price," he elaborates. "There was the matter of time-scales and the conditions they'd have to work in." As it is usually necessary to position the radars at the highest possible point, they are often subjected to winds of up to 110mph, rain and sea spray. "The scenery on the west coast of Ireland is particularly wild, so whoever we chose for the job needed to take this into consideration."

After considering all the options, Omada Fire & Security, a company already known and respected by Mr Guihen, was chosen to carry out the installation. "Omada won the tender, not just because of their reasonable pricing, but mainly because they offered the complete package to meet our needs," he says.

Having worked in his current capacity for over 12 years, Mr Guihen is in a good position to comment on the recent developments in the security industry. "We've all seen the greater need for protection since 9/11," he says. "We must look at new ways of managing the increased threat and ensuring that people and assets are protected." In addition to this obvious change, he also sees a growing requirement for increased health and safety measures, describing them as "an integral part of the business." To this end, the cameras can also assist – should an incident occur, Mr Guihen and his team will be able to review the footage and determine what happened. "This way, we can put measures in place to prevent such an event happening again."

An important consideration in the partnership was the equipment supplier. "We've used Norbain extensively in the past and they've never let us down," explains Hugh Smealie, Omada's Project Manager. "The price and service have been excellent and the dedicated Irish team have really looked after us."

Sophisticated protection

Takex active infra red beam towers have been positioned at the sites. If the beam is broken it activates an alarm and triggers the FastTrace ADPRO system which immediately sends live pictures back to Video Central in the control room in Shannon. Although the system records all activity 24/7, the recording rate is increased when alarm acitvity is triggered, thus maximising digital recording.

"We chose FastTrace because it combines video alarm verification, remote site monitoring and control, and long duration evidential quality recording," says Mr Smealie. "The system makes it quick and simple to manage sites over a large distance, essential in this application." Indeed it is this ability to gather digital images across great distances that Mr Guihen sees as one of the breakthoughs of modern electronic security. "These new technologies are proving to be essential for todays businesses with sites spread out over a country and even over the world," he says. This is also where reliability of equipment is so essential. "You can't be heading out to remote locations to clean lenses or carry out unscheduled maintenance. Everything must be robust and self protecting."

This was obviously an important consideration when choosing the cameras. Pelco Spectra III day/night dome cameras have been used on all the radar sites as well as the air traffic control centre itself. "All the external cameras have the ability to revert to monochrome from colour when light levels drop. This keeps the picture sharp and the quality high," explains Mr Smeallie.

Often being positioned 1100 feet above sea level and facing out to the ocean, these cameras are subjected to unusually harsh conditions. The corrosive salt water, blown in by the gusting westerly winds is not only tough on the domes themselves, but also causes high amounts of vibration. "We needed a solution to drastically reduce the amount of movement the domes were experiencing," says Mr Smeallie. "Pelco suggested using an anti-vibration mount adapter which works very well." The adapter, designed primarily for outdoor installations, reduces external vibrations by isolating the Spectra III system from the source of the vibration. Although impressed by these additional measures, Mr Guihen knows his country well. "We haven't had any problems so far, but I've no doubt that the weather conditions over here will severely test the equipment."

Another measure put in place to retard the elements is the NVT twisted pair video transmillsion used to connect the cameras and the FastTrace units. As Mr Smeallie explains, "This provides the proper earthing and insulation against possible lightning strikes." An occurence not unusual in the area.

There have been no incidents since the equipment has been installed. "The system has been installed to protect," says Mr Guihen. "This is its primary function and we're very pleased with the results to date." But will the system pay for itself over the next few years? According to Mr Guihen, this was never the objective. It's simply in place to try to prevent any problems occuring in the future, to reassure staff and to watch over assets. "You can't put a price on this," he states.

The IAA and Mr Guihen are very happy with the equipment installed and the job carried out by Omada Fire & Security. The size of the project, the large distances covered and the vagaries of the Irish weather all made it a challenging project. "Although we must still go to tender for projects, Omada now have gained valuable experience which is always an advantage for future projects." he explains. "We've all

gained valuable knowledge from the project and this will definitely put them in a strong position for any future projects where the location is inhospitable."

About A1 Omada

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