

CASE STUDY: MILITARY

YUMA PROVING GROUND



The U.S. Army's Yuma Proving Ground is one of the largest military installations in the world encompassing more than 3,000km² in the northwestern Sonoran Desert.



The proving ground is used for testing military equipment and aircraft and contains six long airfields. The proving ground conducts tests on nearly every weapon system in the combat arsenal.

In a typical year, over 500,000 artillery, mortar and missile rounds are fired, 36,000 parachute drops take place, and over 4000 air sorties are flown from the proving ground's airfield. Dozens of units visit each year for realistic desert training, especially before deploying overseas. More than 3000 people work at this base.

Requirements

The high maintenance costs of existing security solutions, combined with heightened security requirements meant a comprehensive review of the base security regime was required.

The U.S. Army needed to protect this critical military installation against unauthorized intrusions, sabotage or terrorist attacks.

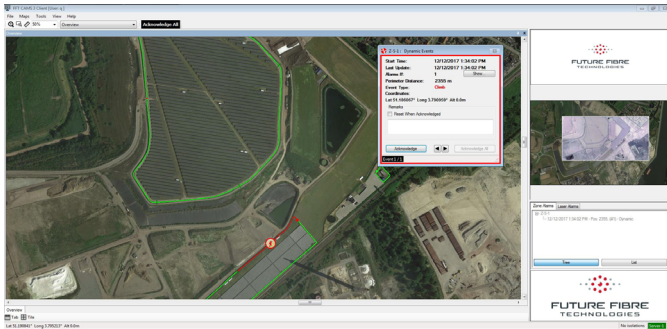
Our Solution

A comprehensive security review concluded that in order to adequately protect this critical facility, an advanced perimeter intrusion detection system was required.

Comprised of a fence mounted sensor combined with a buried system to detect tunnelling beneath the fence, these systems would need to seamlessly integrate to new, highly advanced colour daytime and monochrome night vision cameras that were capable of identifying intruders as far as 14km away.

The selected system would also have to be able to cope flawlessly with the hostile desert temperature extremes, very strong desert winds, the close proximity of military aircraft, and nearby weapons testing without generating excessive nuisance alarms.

Proposals and bids were solicited from manufacturers and integrators worldwide. After reviewing all of the different proposals, and numerous evaluations, the client selected FFT Secure Fence™ based on its high detection performance; ability to pinpoint the location of an intrusion; the discrimination of nuisance alarms without compromising sensitivity; low installed cost; near zero maintenance; and a long history of operating reliably at airports and military installations around the world in a range of harsh weather conditions.



FFT Secure Fence™ delivers all of this without the considerable added expense of requiring power, controllers and electronics installed in the field - unlike almost all of the alternative solutions proposed. These savings alone were estimated to be well in excess of \$1million.

The Department of Homeland Security was also familiar and comfortable with the performance of the FFT Secure Fence system through other Government installations.

In this particular scenario, one FFT Secure Fence™ system was used to protect the fence, with a single run of sensor cable mounted at mid height, running around the entire perimeter fence – all 23 kilometres of it. The controller itself was housed on the main security complex, and only fibre optic cable and passive optical termination devices were installed in the field. These field components are completely maintenance free, and require no sort of seasonal adjustment to maintain their detection performance.

A second Secure Fence™ system was installed, but this time with the sensor cable buried approximately 30cm deep in the ground below the entire fence to detect attempts to tunnel underneath.

Both of these systems were connected to the alarm monitoring system – FFT CAMS™. This multilingual GUI operator interface not only clearly displays the alarm details in an intuitive manner, but it also communicates directly to the long range CCTV system guiding them to the exact point of intrusion. All of the alarm information is stored in a secure database for later playback and review.

Detailed alarm information can also be rapidly relayed to mobile security guards and vehicles around the base via Android mobile devices.

The perimeter does not need to be divided into physical zones as it provides the actual location of an intrusion. This provides for more accurate camera positioning to verify intrusion events and guide armed guards to. The system is easy to operate and capable of being managed by just a single security person.

Utilizing the FFT Secure Fence™ systems, this installation now protects the Department of Defense's premier test and evaluation site, where improvised explosive devices (IED's) are tested, a huge range of military aircraft are flown to and from, and equipment tested in harsh desert conditions. It provides the precise location of intrusions anywhere along the perimeter fence which is in excess of 23 kilometres long and has continued to do so since it was installed in 2004.

Customer Feedback

“By far, Future Fibre Technologies (FFT) was the best proposal, best value, and as it turned out, theirs was the lowest price. EC III and our customer (YPG Law Enforcement) were extremely impressed with FFT's performance, timeliness, professionalism, as well as follow-ups after the work was completed. The system is the best we have seen or heard of to date. Every facet of the system met and/or exceeded our expectations.”

Tom Mannan

EC III Subcontracts Manager/IASO
U.S. Army - Yuma Proving Grounds