

Guard Tower® Intrusion Detection System solves challenges for port facility

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Ports and terminals around the world are realising that protection of their perimeters deserve an increased priority and focus. The cost and consequences of a security breach as a result of theft or terrorist activity looking to inflict maximum harm, can be catastrophic. The typical chain link fence with razor wire is inadequate against these types of intruders.

The perimeter protection challenges at port facilities typically include:

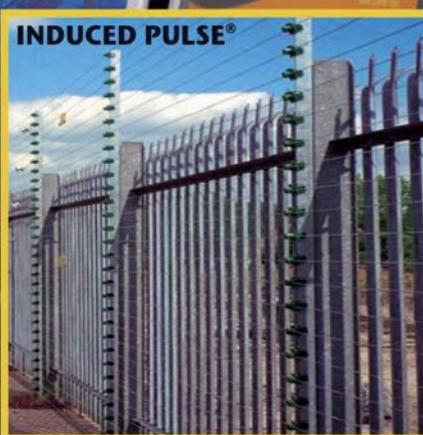
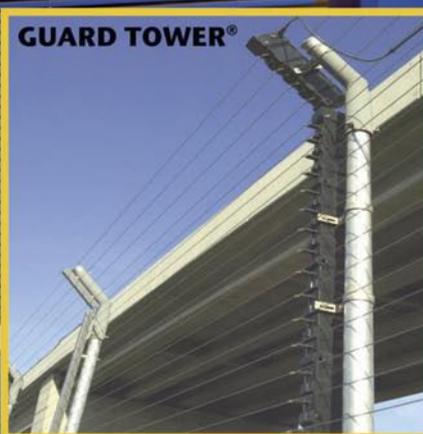
- A large perimeter to protect, which can be difficult with staffing limitations. With a limited security force available to respond to alarms, knowing exactly where a perimeter breach is taking place will ensure a timely response while minimising the search area.
- A high volume of high value items moving through the port tends to attract thieves.
- A high volume of truck and train traffic with corresponding vibrations of the ground and vicinity, causing frequent nuisance alarms with motion sensing devices.
- The system must work as a stand-alone system as well as be able to integrate with existing barriers such as chain link, barrier walls, decorative fences, swing or slide gates, or roof tops.

- A false/nuisance alarm rate as close to zero as possible. The cost of responding to false and nuisance alarms can quickly reduce the benefit of having an intrusion detection system (IDS).
- The system must present an imposing message to would-be intruders, yet be aesthetically pleasing to the surrounding environment.
- Being near salt water, a system must withstand the corrosive environment at most sea ports.
- Given a limited, and in many cases over-burdened, maintenance staff the system must be easy to maintain and, if needed, be easily repaired.
- In most cases, the available budget and the level of security required are not compatible. The system must be affordable.

Case study

For this article, we will consider a large container terminal in North America, transferring about one million containers annually, where the Zareba Security Guard Tower® perimeter intrusion detection system was installed. There are several major

Trouble-free perimeter protection.



GUARD TOWER® PERIMETER SECURITY SYSTEM

- Matrix wire array intrusion detection system
- Filters out nuisance alarms
- Identify breach to within 10 feet
- Adapts to existing structure or landscape
- Simple maintenance and repair

INDUCED PULSE® ANTI-PENETRATION SYSTEM

- Non-Lethal Electric Fence (NLEF)
- Tamper resistant
- Fully customizable

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shipping lines and train lines that serve the port. The port covers approximately 22,000 acres. For security reasons, and at the request of our customers, Zareba Security will not disclose the name or location of the sites.

The Zareba Security Guard Tower® system consists of a vertical sensing post attached to a wire array. The sensing post can be mounted in a variety of heights and to a variety of supporting surfaces. Each sensing post has a unique address location. When activated, the alarming post sends a signal to the head end control identifying itself, as well as the breach location. The sensing post monitors the movement of the wires in the wire array; any significant movement of the wire in any direction activates the alarm sensors.

In addition to the Guard Tower systems' ability to be configured many different ways, the head end controls also offer different options, depending on the user requirements and budget.

Control Option 1: Computer-based control reads the information transmitted from the sensing post. Based on user inputs the control will trigger an alarm condition.

Control Option 2: Relay-based standard alarm panel annunciates alarms either to an alarm panel with LCD key pad or interfaces with an existing access control system.

Control Option 3: Computer-based control with plug-and-play CCTV integration. The system directs pan-tilt-zoom cameras to target the breach point, providing immediate visual verification.

The port facility installed an eight-foot Guard Tower system using the computer based control head end for the following reasons:

- The Guard Tower system is not affected by heavy traffic or rail traffic
- Over a period of two years the Guard Tower System had close to zero false/nuisance alarm rate
- Physically imposing and aesthetically fit with the environment
- Ability to mount to both a sliding and swing gate
- Certified to withstand a saltwater spray environment
- Easily integrated with other sensing systems
- Easily integrated to existing access control systems.

The Chief of Security for the port said, "When you have an alarm, time is of the essence. The Guard Tower allows you to know exactly where the intrusion is taking place. This is critical when a rapid assessment must be done. Having the capability to put the cameras on it, and focus on the actual locations with the cameras, is a great option. I like that it is adaptable to various software and CCTV use. In addition, we have a lot of inclement weather and that can be in the adversaries favour. If they think



A stand-alone installation of the Guard Tower® intrusion detection system pinpoints breach locations, while filtering false alarms due to environmental factors like ice and snow.

the guards won't be able to find them in the rain or fog easily they are more brazen. With the Guard Tower, we don't have to be searching a 200-foot long zone, we know exactly where they are."

The Guard Tower perimeter security system is available in varying heights as needed for a perimeter. It can be fixed with outriggers as well as attach to existing fence or other barriers if needed.

"It definitely has a deterrent look about it. That in itself can be a deterrent. It looks imposing and that is going to prevent someone from taking action against it," said the port's Chief of Security.

The Guard Tower also has a low incidence of nuisance or false alarms. The alarm is caused with wires are cut, spread or pulled. Weather and situational vibrations do not cause false alarms.

"We have a lot of train traffic in close proximity to the Guard Tower system and the vibrations or weather have not caused any false alarms. The other systems we have used previously would alarm with wind or heavy rain. The Guard Tower did not," said the Chief of Security.

The Guard Tower was subjected to many tests at the port and passed all of them "We have done attempted penetrations on it, we have done 24-hour day-to-day operations testing on it, we have assessed alarms from the system, we have had train traffic in close proximity, and the Guard Tower has passed all the tests. The fence fared very well and was very accurate," said the port's Chief of Security.

ABOUT THE COMPANY

Zareba Systems, Inc. is the world's leading manufacturer of electronic perimeter fence and security systems for animal and access control.

A Minnesota corporation since 1960, Zareba is a publicly held company that trades its stock on the NASDAQ stock market (ZRBA).

The Company's corporate headquarters is located in Minneapolis, Minnesota, with manufacturing facilities in Rochester and Ellendale, Minnesota, and a subsidiary in Oakham, County of Rutland, United Kingdom. Its Zareba Systems Europe subsidiary owns Rutland Electric Fencing Co., the largest manufacturer of electric fencing products in the United Kingdom.

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