

# **Sports stadiums**



Several thousand people cramped together, both friend and foe; emotions run high and even the slightest disagreements can escalate. Suddenly, everything runs out of control: mass panic. To prevent this from occurring, it's important that the security personnel always maintain an overview of what's happening so they can nip any problem in the bud.

A proven security concept for protecting stadium visitors is a GEUTEBRÜCK video security system – recognize danger in an instant, because every second counts.

The video security system must have a broad, comprehensive view of the stands and also be able to analyze and monitor suspicious situations quickly and in detail.

The most important component of this video security system is the camera system.

The GEUTEBRÜCK ARGUS high-speed pan/tilt system is predestined for such an application. The integrated high-resolution system camera (which can also be configured remotely), equipped, for instance, with a high-speed motor zoom lens (max. focal length up to 320 mm) delivers impressive picture quality from wide angle to telephoto.

ARGUS is made completely from V4A stainless steel (absolutely corrosion free) for professional use, even under the toughest weather and environmental conditions. A mounting socket with integrated cable gland protects all installation cables. With the option of hanging or standing installation, ARGUS can be mounted without additional mechanical equipment under the roof covering the stands.

The high precision, maintenance-free drive technology (MIL standard) makes possible pan/tilt speeds of  $0.01^{\circ} - 200^{\circ}/s$  (360° continuous rotation) and a positioning repeatability of < +/- 0.01°. The maximum angle acceleration is  $600^{\circ}/s^2$ ; the time needed for positioning of e.g. 90° is max. 0.75 seconds.

A particular feature is the precise and jolt-free very slow run mode. Even at high focal lengths (zoom), using an extremely slow camera movement, every miniscule detail in the stands can be observed.

ARGUS is controlled with the MBeg/GCT-3X-LAN multifunction operating device. The built-in 3-axis joy-stick with integrated zoom function makes remote control of the ARGUS a joy. With the robust stainless steel keyboard, additional fixed positions can be configured and called up or in conjunction with GeViSoft various routes can be started, moving along predefined sections of the stands.

### **Example application:**

In the security room of the stadium the personnel observe certain areas of the stands during the event on the monitors and look for abnormalities with ARGUS in wide-angle mode.

If something suspicious is discovered the operator can move the camera (ARGUS) to this area and zoom in, all in a fraction of a second. Using the very slow run mode, the operator can now analyze the immediate area at full zoom and if danger exists, the local security personnel in that block of the stands is informed per radio what is to be done.

At the beginning or end of an event and during the breaks, with the press of a button the ARGUS system can be moved to fixed positions, e.g. the stairs or entrances to the stands.

In conjunction with GeViScope or a re\_porter, all camera signals are recorded permanently. Additionally, suspicious recording can be manually placed in a separate storage ring.

Naturally, all recordings can be quickly and easily printed out or copied to other media (USB stick, CD, etc.).

The system's functionality can be expanded in any way imaginable.

### For the realization of this example, we recommend the following products:

Cameras for installation (ARGUS)
Lenses for installation (ARGUS)
ARGUS high-speed pan/tilt system
re\_porter hybrid recorder
GeViScope hybrid server
MBeg/GCT-3X-LAN multi-function operating device
MultiMap graphic user interface (GUI)

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## **Example: Layout of a football stadium**

