

BEST PRACTICES IN SENSITIVE SITES 24/7 SURVEILLANCE USING OPTRONIC SOLUTIONS



Military camps, nuclear & chemical plants, and public facilities such as airports are considered to be sensitive sites, as they involve massive flows of people and dangerous materials' handling. These sensitive sites must be closely monitored to ensure their security and their continuous 24/7 operation, even more in a context of terrorist world threat. Bertin Instruments' optronics solutions, PeriSight® and FusionSight®, can be used to maintain the surveillance of these sites, with the highest level of accuracy in terms of sensitivity and reliability. These devices, designed for fixed and mobile surveillance, can detect intrusions in any situation, day and night, but also during heavy weather conditions.

IMPROVE THE PROTECTION OF A SENSITIVE SITE WITH PERISIGHT® AND FUSIONSIGHT®

SUMMARY

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FRENCH MILITARY BASE SURVEILLANCE WITH FIXED INSTALLATIONS (1/2)

Canjuers, France

/ CONTEXT

CETIA are French Army fire course centers for Infantry and Armored Regiments.

Located in the South of France, Canjuers' CETIA is the largest military training camp in Western Europe. It is equipped with a 20km fire course for training on offensive, defensive, in-vehicle and landed actions (missiles, artillery, helicopters, tanks, MRLS...).

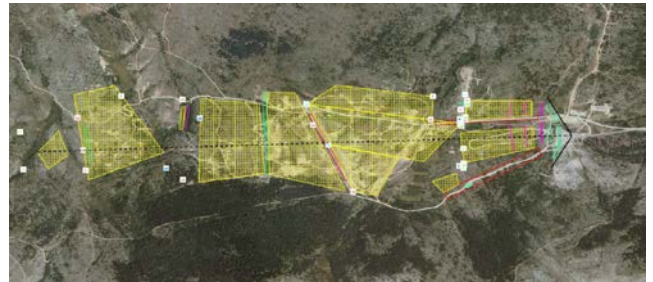
A control tower is located alongside each shooting area, from where every course of fire is supervised, by day and at night.

Supervision requires observation and monitoring of any activities before, during and after shootings. Indeed, supervisors not only have to look at the trainees' position while they are shooting and analyze shooting results, but they also have to make sure the shooting area is clear before authorizing trainees to proceed.

Therefore, control towers had to be equipped with a system allowing day and night observation and recording all activities in any portion of a shooting area.



Control tower

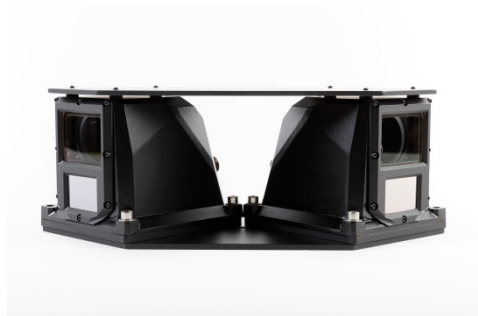


Satellite view of a shooting area with its corridors

/ MATERIALS

Each control tower is equipped with:

- A primary optical device based on two side-by-side PeriSight® 90° modules dedicated to the observation of the entire shooting range.
- A secondary optical device based on six PeriSight® Zoom modules dedicated to the observation and the analysis of each corridor. Besides, in order to focus on a particular point of a corridor, each PeriSight® Zoom module is mounted onto a Pan-Tilt turret and includes:
 - a 43°-4,3° optical zoom for the color low light channel
 - Bi-focal 14,3° and 4,6° optics for the thermal channel
- One FusionSight® for handheld observation.
- One rack for video control and recording
- Six LCD monitors to display the video



Two side-by-side PeriSight® 90° modules



FRENCH MILITARY BASE SURVEILLANCE WITH FIXED INSTALLATIONS (2/2)

Canjuers, France

/ OPERATION



View of a shooting range with the primary optical device (system of two side-by-side PeriSight® 90° modules)

From the tower's control room, the system is operated through a dedicated and intuitive Human Machine Interface (HMI).

Before each course, operators make sure that the shooting area is clear of any human presence, by using the PeriSight® 90° module. They also remove any doubts by using the PeriSight® Zoom modules and focusing on specific areas.

Then, when the course starts, operators initiate a recording of:

- The videos coming from all the PeriSight® modules.
- The communications coming from the radio

Video and communications can be displayed lively or on demand after the courses, on LCD monitors located inside the control and executive rooms.

Each tower is also equipped with one FusionSight®, used as a mobile and autonomous Night & Day observation device.



Views of a shooting range with the secondary optical device (six PeriSight® Zoom modules)

/ CONCLUSION

Thanks to its modularity and its scalability, PeriSight® is well adapted to the surveillance of sensitive sites such as military training camps. The optronic technology and the combination of modules allows for a day and night observation of any land perimeter. The intuitive HMI makes PeriSight® an easy-to-use system, designed for user comfort.



AIRPORT MOBILE SURVEILLANCE SOLUTIONS

Orly Airport, France

/ CONTEXT

Because of their activities, some industrial and civil sites are sensitive. Namely sites where there is a lot of people, such as airports, or sites where hazardous materials are stored or manufactured, like nuclear power plants or chemical plants.

Increasing terrorist threats over these sites have been leading authorities to strengthen their surveillance.

In order to fulfill their mission, surveillance teams of sensitive sites not only require fixed and PTZ cameras, but also handheld observation devices for their rounds. Since most sensitive sites do not exceed a three kilometers perimeter, surveillance teams must be equipped with medium range observation devices. These devices must also provide images whatever the light conditions, and shall be easy to use and lightweight as well.

Among the French Gendarmerie, there are special units assigned to airports, in charge of the protection of French and foreign VIPs when they are transiting through these airports. Their main duty is to perform surveillance outside the airport to secure airstrips and to prevent any trespassing in the airport.



/ OPERATIONS

FusionSight® was assessed by a Homeland Security special unit in charge of the Orly Airport. The assessment was done at night outside the airport, alongside the airstrip. The evaluation involved several members of this special unit, acting as observers or as targets. Targets were hiding a few hundred meters from the observers. Due to light coming from the airport premises, the level of night was 1.



Plane taking off, thermal mode



Airstrip fusion mode

/ CUSTOMER

« We have been very satisfied with thermal and low light vision modes of FusionSight®. We particularly like FusionSight®'s field of view, as it brought comfort in use. We are convinced of FusionSight®'s capability regarding our missions at the Orly Airport » Lieutenant T., French Gendarmerie

/ CONCLUSION

FusionSight® is adapted to the surveillance of sensitive sites because it features:

- Thermal and low light vision modes, with the low light mode providing a colored image thanks to light conditions
- 30° field of view, comfortable for the user
- lightweight, which helps the observer reach his main objectives without further tiredness.

Besides, its intuitive and ergonomics design make FusionSight® an easy-to-use device.

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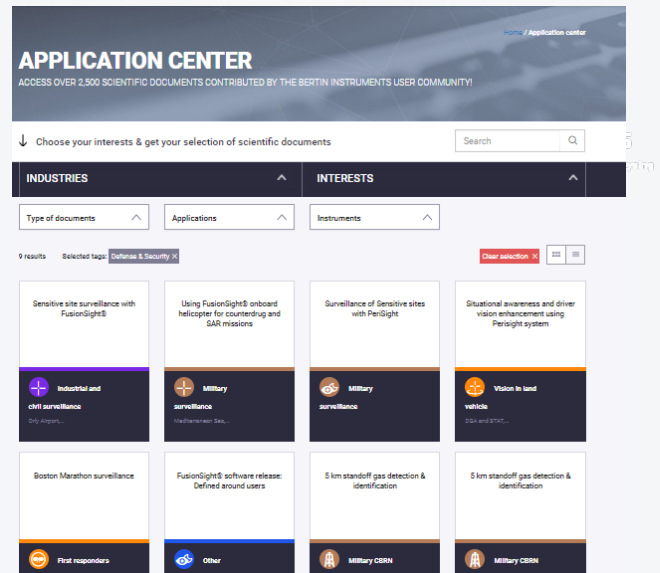
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FusionSight® and PeriSight®, night & day vision enhancers:

- Full Digital, all-in-one device with 3 viewing modes: color low light, thermal, smart fusion
- Night & day Detection, Recognition, Identification
- HD video output,
- Ruggedized devices, compliant with MIL-STD

