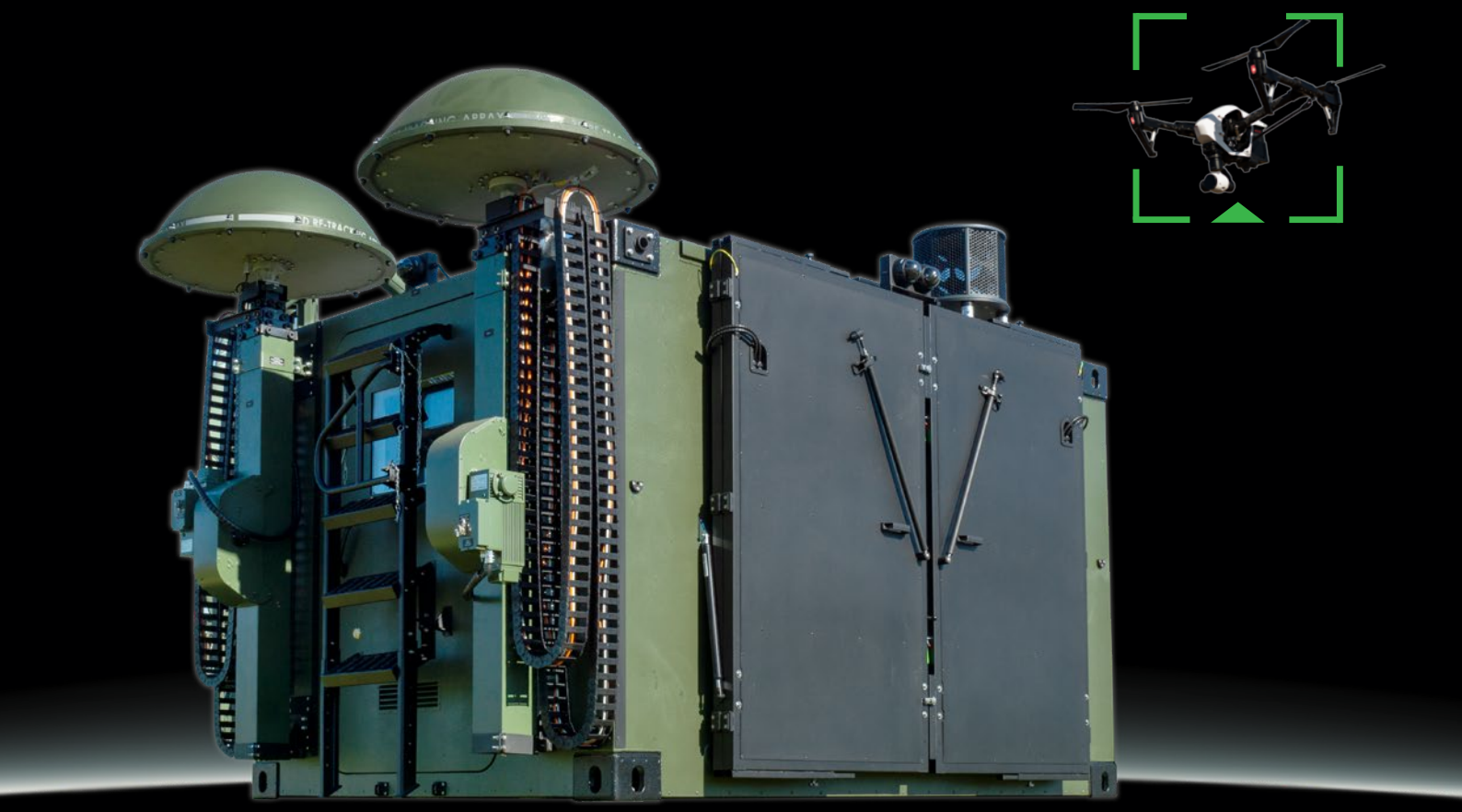
AARTOS™ GENERATION 6

AARONIA DRONE DETECTION

DDS SHELTER Solution

A complete, mobile, and self-sustainable drone detection command shelter



- Mobile and easy operable
- Military grade quality
- Short set-up time
- Remote controllable command center
- Capable of fully self-sustained operation
- Gapless detection and surveillance in 360°

MADE IN GERMANY

drone-detection-system.com

AARONIA AG
WWW.AARONIA.DE

AARTOS™ Drone Detection Shelter

Our mobile and remote controllable command center

The AARTOS™ drone detection shelter sets a new benchmark in mobile and off-grid drone detection. Both scalable and easy to operate, it can be set up and deployed in no-time.
The perfect surveillance and drone detection solution for:

- Events (concerts, parades, sport events etc.)
- Industrial plants
- Borders or open spaces
- Airports, correctional facilities etc.
- Military camps

The AARTOS™ Shelter control center provides full control.

Highlights

- An easily scalable drone detection and video surveillance system
- Remote-controllable with live video and drone detection feed
- Multi-unit (large grids) support
- Sabotage protection via permanent 360° surveillance and drone detection
- Independent of external motion detectors
- Capable of fully self-sustained operation
- Shortest setup and deployment times on the market

Features

Automatic alarms
RF drone detection and video object classifying through latest state-of-the-art analysis plus immediate alarm forwarding

Alarm triggering
Alarms can be sent via email or text message

Gapless detection and surveillance
Continuous, gapless 360° RF and video detection without dead angles

Optional self-sustained operation
The DDS can be used as an off-grid solution, powered by solar energy and an additional diesel generator, making it independent for up to three months

Live feed
Access to live and archived video and drone detection feed via mobile network or satellite

Additional security
If needed, a direct connection to the Security Guard Control Center can be established

Easy setup
The system can easily be set up and deployed by a single person in around 10 minutes

German engineering
Every component of the equipment is thoroughly checked and carefully installed, making for the best use of the available space

A full mobile solution to control the airspace wherever you need!

Applications and Uses

Security for every airspace

The AARTOS™ drone detection shelter is available in two standardized sizes; The Zeppelin FM1 and The Zeppelin FM2. They are easy to handle and deploy on any Unimog or other means of appropriate transport.

The shelter can be used as a command center, and also as a self-sufficient, remote controllable, contained system.

The cabin has two seats for two operators, four 4k monitors to provide a complete overview of the airspace, and the four cameras surrounding the shelter to monitor the environment in 360°.

There are countless applications for this complete and mobile solution. For example, the AARTOS™ drone detection shelter is already in use at airports, and my military personnel to counter and monitor potential threats.

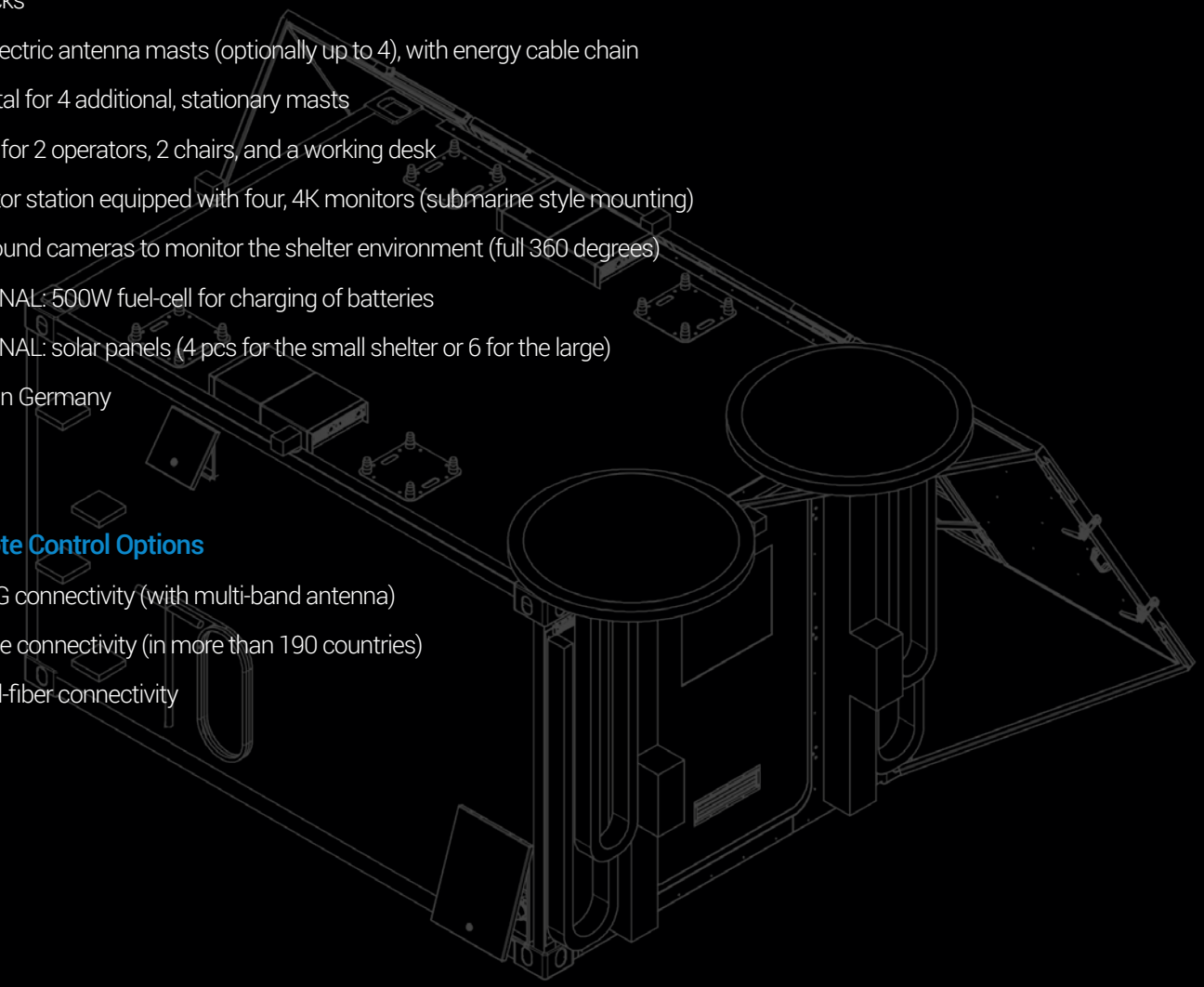
Whether mobile or at a fixed location, with human operators or remotely controlled, the AARTOS™ drone detection shelter is the perfect tool for professional airspace monitoring to detect and stop unwanted drones.

Please contact us for further information.

The AARTOS™ shelter is available in two different sizes and in different colors.
It can be used as a command center but also as a self-sufficient, remote controllable container.

Shelter Specifications

- Small shelter version (FM1) :
  - Dimensions: 2200 x 1600 x 2445 mm
  - Weight: approx. 1 ton
- Large shelter version (FM2) :
  - Dimensions: 4250 x 2200 x 2075 mm
  - Weight: approx. 1,5 ton
- Colors: white, NATO green, or any other RAL standard (camouflage on request).
- Solid construction in corrugated steel sheet metal
- Single door with locking bar and rubber gasket
- Power bank set – li-Ion batteries
- Heating / air condition
- Full electric power infrastructure
- Data/signal installation compatible with AARTOS™ systems, jammers, cameras and radars
- Ducts for cables and special universal connectors boxes for connecting cables
- 19" racks
- Two electric antenna masts (optionally up to 4), with energy cable chain
- Pedestal for 4 additional, stationary masts
- Space for 2 operators, 2 chairs, and a working desk
- Operator station equipped with four, 4K monitors (submarine style mounting)
- 4 surround cameras to monitor the shelter environment (full 360 degrees)
- OPTIONAL: 500W fuel-cell for charging of batteries
- OPTIONAL: solar panels (4 pcs for the small shelter or 6 for the large)
- Made in Germany

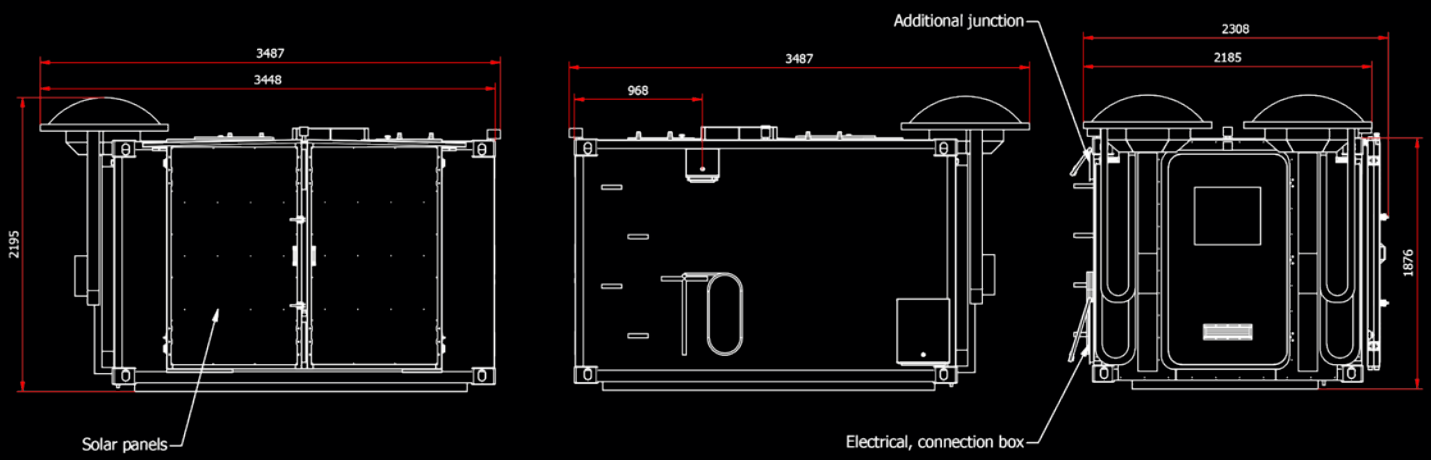


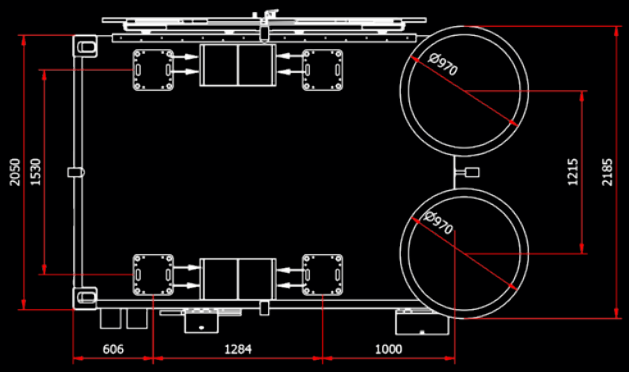
Remote Control Options

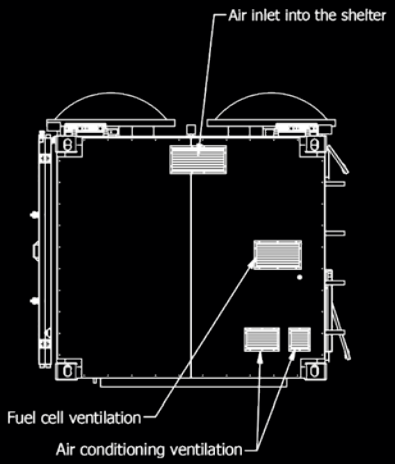
- 3G / 4G connectivity (with multi-band antenna)
- Satellite connectivity (in more than 190 countries)
- Optical-fiber connectivity

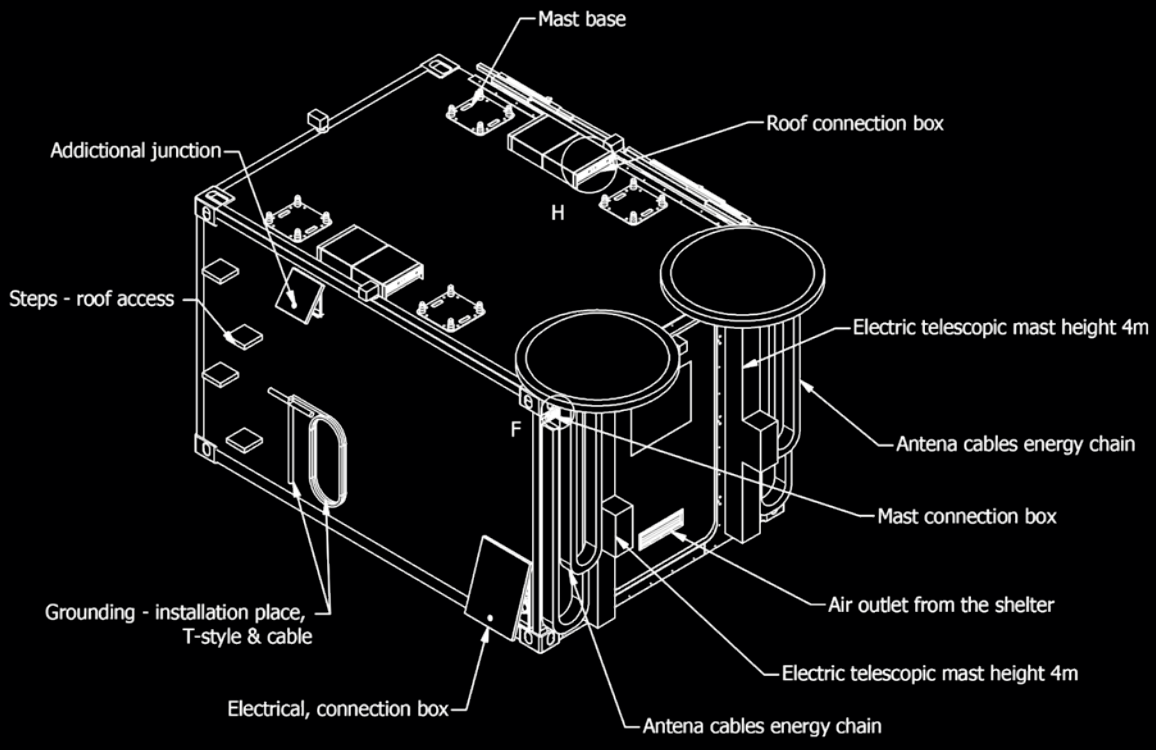
Shelter Dimensions (Small FM1 version)

All necessary components for state-of-the-art drone detection, in one compact space









Integrable Sensors

Take control of your airspace

IsoLOG® 3D DF-160

AARTOS™ Rack

RF Detector (passive)

The most effective method to locate drones and drone pilots is RF detection. Using the IsoLOG® 3D direction finding antenna, a 360° dome-shaped detection area with a range of up to 14 km can be achieved. The RF detector provides real-time all frequency monitoring up to 6 GHz.

Highlights:

- Can track 3G, 4G and 5G drones
- 360°A / 90°E full dome coverage
- Detection range of up to 14 km
- Locates drones, swarms and drone operators
- High-performance specialized software

Available AARTOS™ versions:

AARTOS™ AARONIA DRONE DETECTION X1

AARTOS™ AARONIA DRONE DETECTION X9

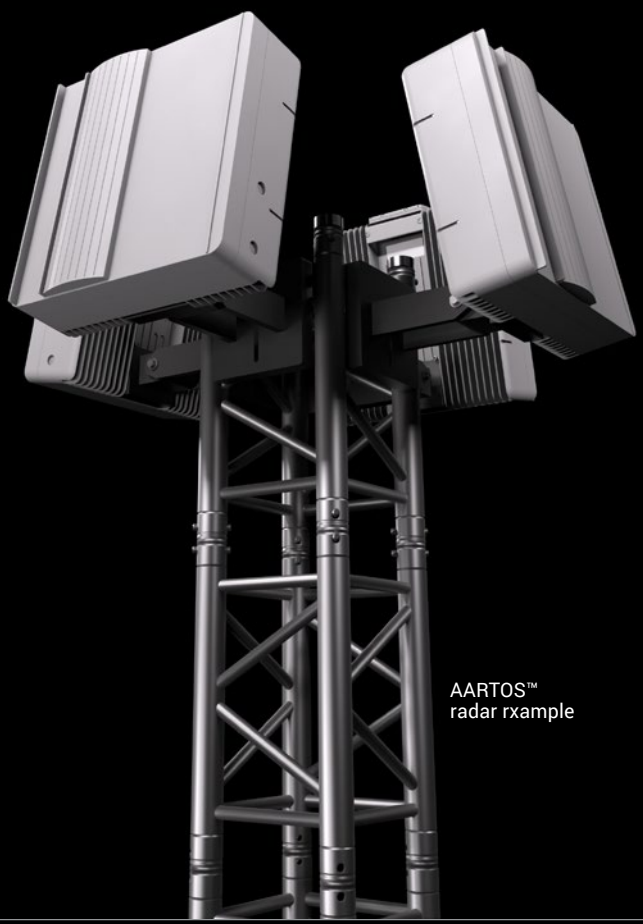
Radars (active)

The AARTOS™ Long Range Radars can automatically determine and display the exact position, flight direction, altitude, speed and classification of an inbound drone. All target flight routes are shown in real-time and in 3D.

Depending on the radar it can distinguish between birds, fixedwing and propeller drones. Multiple alarm areas can be configured.

Highlights:

- 8 km range
- 360° coverage
- 0,1° accuracy
- Locates drones, swarms, and drone operators
- Can distinguish drones from birds and other non-threats



AARTOS™
radar rxample

Integrable Sensors

Take control of your airspace

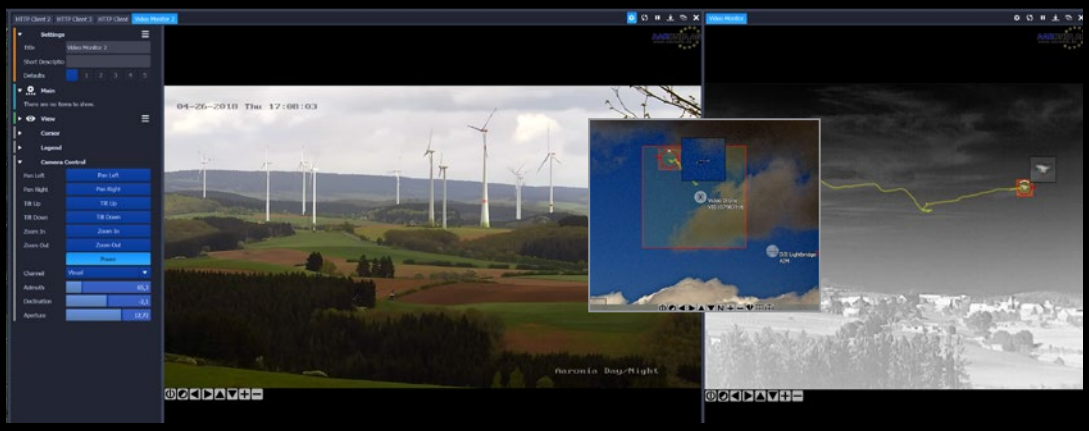
AARTOS™
Camera Examples

Visual and Thermal Cameras

These fully integrable solutions for optical and thermal detection of drones is perfectly aligned with the AARTOS™ RF detection mechanisms. With the AARTOS™ Cam, the user can see the detected drones even from a great distance and identify potentially dangerous payloads attached to the drone, such as explosives.

Highlights:

- Day/Night 360° auto target tracking
- PTZ or 360° panorama camera capabilities up to 160 MP
- Detection verification through single or multiple cameras
- Scaleable system that can be customized to the specific requirement and budget



Anti Drone Jammers

We offer a wide range of jammers for drone defense with an extremely high range of up to 10 km. With up to 800 W output power and a programmable frequency range until 6 GHz these jammers get rid of any drone.

Fully integrated & automatic programmable 360° versions are available.

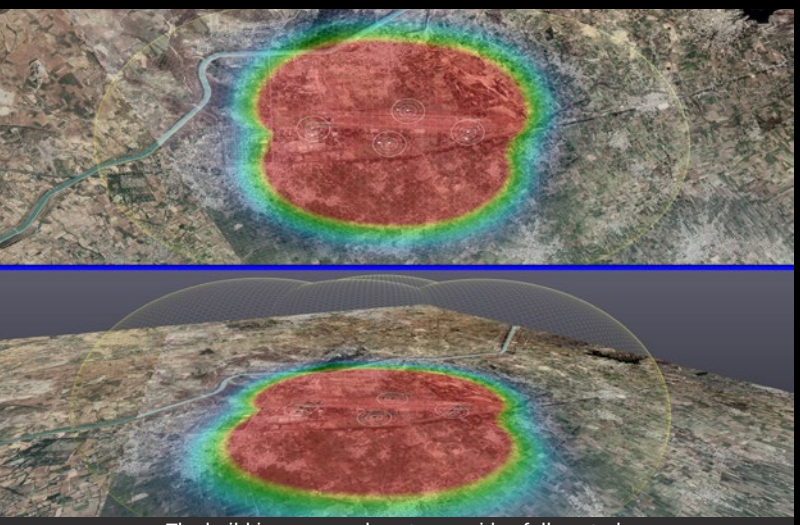
Highlights:

- 10 km range
- Can jam ALL drones within the given frequency range
- Fully programmable frequency range / bands
- 360° ALL frequency directional jammer
- Targeted jamming (automatic or manual)

AARTOS™
jammer example

Command and Control Software

Efficient drone detection supported by an intuitive user interface



The build-in command center provides full control.

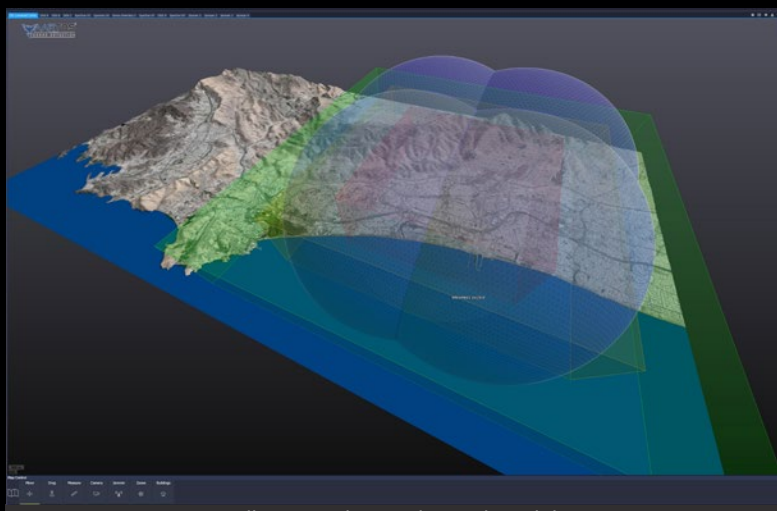
2D Top-Down & 3D View

The top-down 2D perspective is the most commonly used approach for drone detection visualization. Clearly structured, this approach is easy to navigate and is similar to most common satellite-image based map tools.

The 3D view expands on the 2D approach by adding the drone's altitude information (this mode requires multiple drone detection systems). In addition, the 3D view makes it easier to evaluate distances between different objects on the map.

3D Topographic View

The topographic mode displays the surrounding terrain's surface, depicting; hills, mountains, peaks and valleys. Combined with our 3D building system that includes man-made structures, the topographic view creates the most accurate representation of the surrounding area.



Users can tilt, turn and zoom the GIS in real time

Realistic view of an airport using 3D models

Advanced 3D Model View

The 3D view is able to integrate 3D models of complex areas (e.g. cities, airports, etc.), greatly improving the usability of the AARTOS™ drone detection system for end users.

Command and Control Software

Software specially adapted to the AARTOS™ hardware

AI-based Camera Tracking

One highlight of the RTSA-Suite PRO software is the optical target tracking via PTZ camera(s). The integrated, AI-based, real-time target recognition allows several targets to be tracked simultaneously. While our optical triangulation calculates the exact GPS position of the target.

Radar-Integration in 3D

An integrated radar and the targets determined by the RF detector are displayed to the user. At the same time, a visual classification (birds, people, car, drone, unknown) is made.

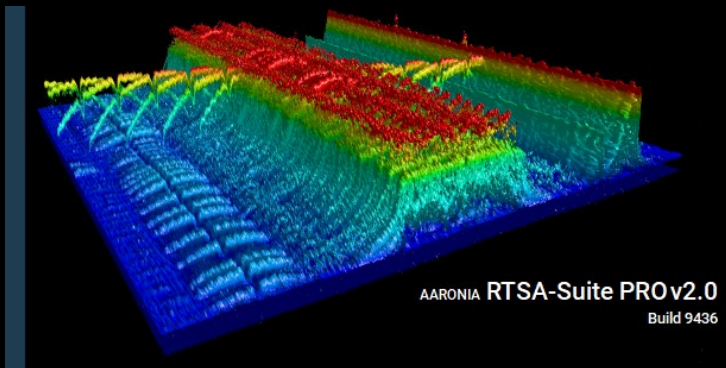
Jammer Setups

In vehicles, installed jammers can be seamlessly integrated into the full system. Each antenna or sector of the jammer can be assigned an individual propagation diagram. This cone can be defined both two-dimensionally and three-dimensionally. When the jammer is activated, the corresponding cone/sector is animated. Enabling the best possible visualization on the tactical display.

RTSA-Suite PRO Software

Get more information about RTSA-Suite PRO Software:

www.drone-detection-system.com/rtsa



HUNDREDS OF INSTALLATIONS **WORLDWIDE**

AARONIA AG
WWW.AARONIA.DE

CUSTOMER GROUPS

- Military & police forces (ground & air)
- Convoys
- Airports
- Power plants
- VIP security services
- Border patrols
- Government buildings (e.g. embassies, correctional facilities)
- Events (concerts, political events, sports etc.)
- Seaports / marinas
- Private properties

AARTOS™ DDS

REFERENCES

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