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**ITOPP**  
ALCEN

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# Directed Energy Weapon

For the Neutralization of Autonomous  
Drones and Drone Swarms



from **spark** to **lightning**

# Complete and integrable solution on different platforms



Multiple integration possibilities

Containers | Military Vehicles | Boats | Drones | Strategic Plants | Missiles | Laboratory

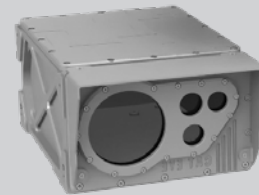


## Optronic System to Detect and Track

HEMISPAC – LERITY

### Detect and track drones

- Detect drones in real time
- Operational range of about 1,000 m for a 30 × 30 cm drone
- Multi-threat automatic detection & tracking



## Camera to Identify and Classify

CAT EYE – LERITY

### Identify and classify drones in real time, day and night

- Operational range of about 800 m for a 30 × 30 cm drone
- Inform user of the threat



## High Power Microwave Device to Neutralize

X-band microwave radiation system – ITOPP

### Neutralize drones

- Fire on user command
- Piloted or autonomous drones
- Single or swarm of drones

## CAPACITIES OF THE DEVICE

### Scalable, mobile and autonomous system

- Integration and communication with an external C4ISR
- Installation on various platforms (truck, boat, etc.)
- Use with batteries and a generator for greater autonomy

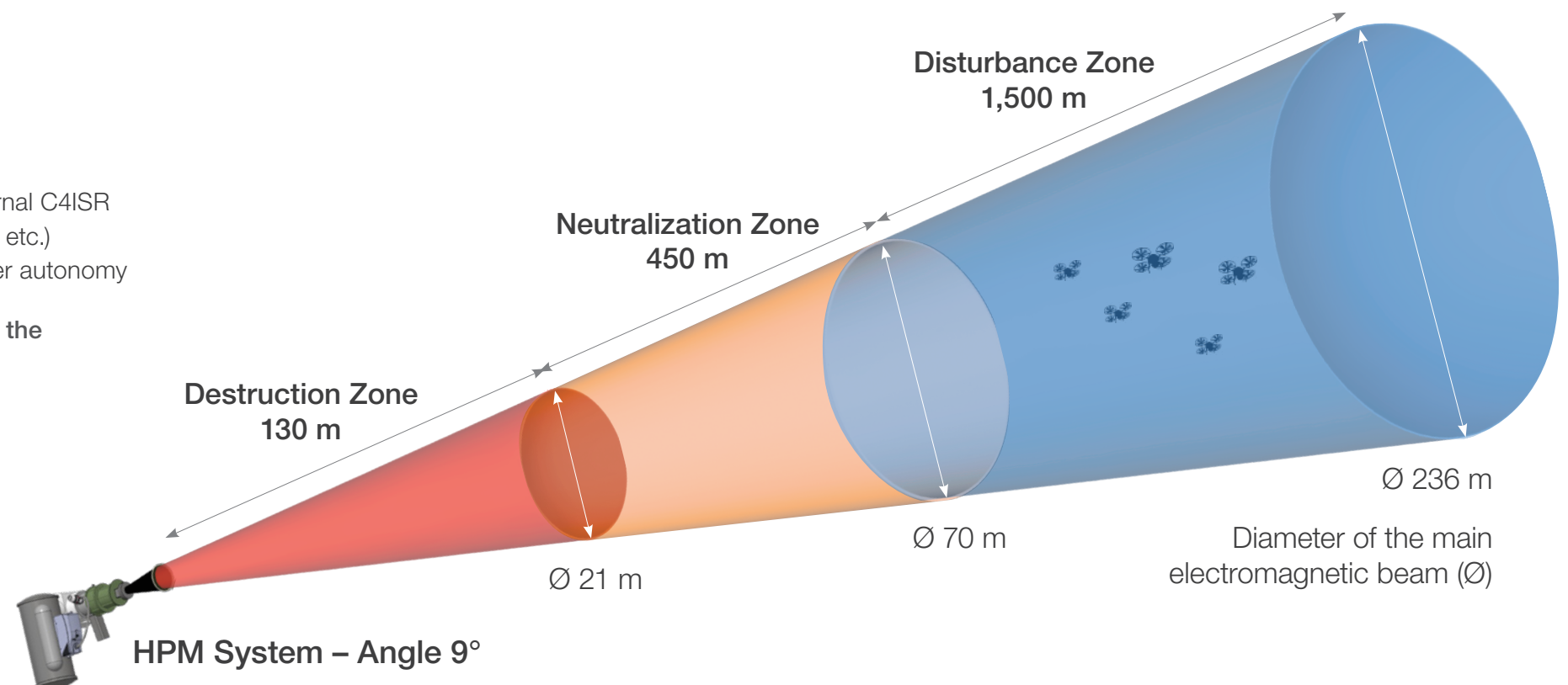
ITOPP can adapt the equipment according to the constraints of operations

Quick and easy to use

### Range of effects

Diameter of the main electromagnetic beam:

- 16 m at 100 m (52.49 ft at 328 ft)
- 21 m at 130 m (68 ft at 426 ft)
- 70 m at 450 m (229 ft at 1,476 ft)
- 236 m at 1,500 m (774 ft at 4,921 ft)





With more than 25 years of expertise, ITOPP has become the French leader in pulsed power and high-power microwave technologies. On the basis of customer



specifications, ITOPP designs and manufactures highly innovative systems adapted to scientific research and also to civilian and military applications.

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**ALCEN**

6 rue Paul Baudry  
75008 Paris – France  
Tel. + 33 (0)1 40 72 55 00  
alcen@alcen.com  
www.alcen.com



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**ITOPP**

1160 route de Miers  
46500 Thegra – France  
Tel. +33 (0)5 65 33 43 30  
contact@itopp-alcen.com  
www.itopp-alcen.com