

INTELLIGENT &  
CYBER-PROTECTED  
MISSION-CRITICAL  
SYSTEMS



RAPTOR



## COUNTER-DRONE SOLUTION

### RAPTOR, a proven and operational solution

While the number of commercial drones is dramatically increasing nowadays, their illicit and dangerous use can cause many issues such as: event perturbation or area infringement, intelligence, smuggling, and even targeted attacks.

RAPTOR is the first Canadian counter-drone integrated system. It has been designed and built by CS to protect critical assets against small drones. Its very high performances, obtained through multi sensors and effectors integration, enables detection, identification and neutralization of rogue drones.

#### RAPTOR: concept of operation



### Main features

- > Fully integrated solution
- > Transportable, deployable & autonomous system
- > Multi-sensor & multi-target detection
- > Interoperability: NATO SAPIENT and Tactical Data Link L16
- > Multi-sensors data fusion
- > Global multi-target engagement
- > Non-lethal selective engagement
- > Centralized targeting, coordination and monitoring
- > Friendly user interface with 3D display and map
- > Centralized recording & replay
- > Centralized communications
- > Capability to interconnect C2 into existing control & monitoring room
- > Capability to integrate additional sensors and/or effectors

### Use cases

- > Events: sports, parade, VIP
- > Sensitive sites: Prisons, military assets, official buildings
- > Critical infrastructures: nuclear plants, industrial assets
- > Airports

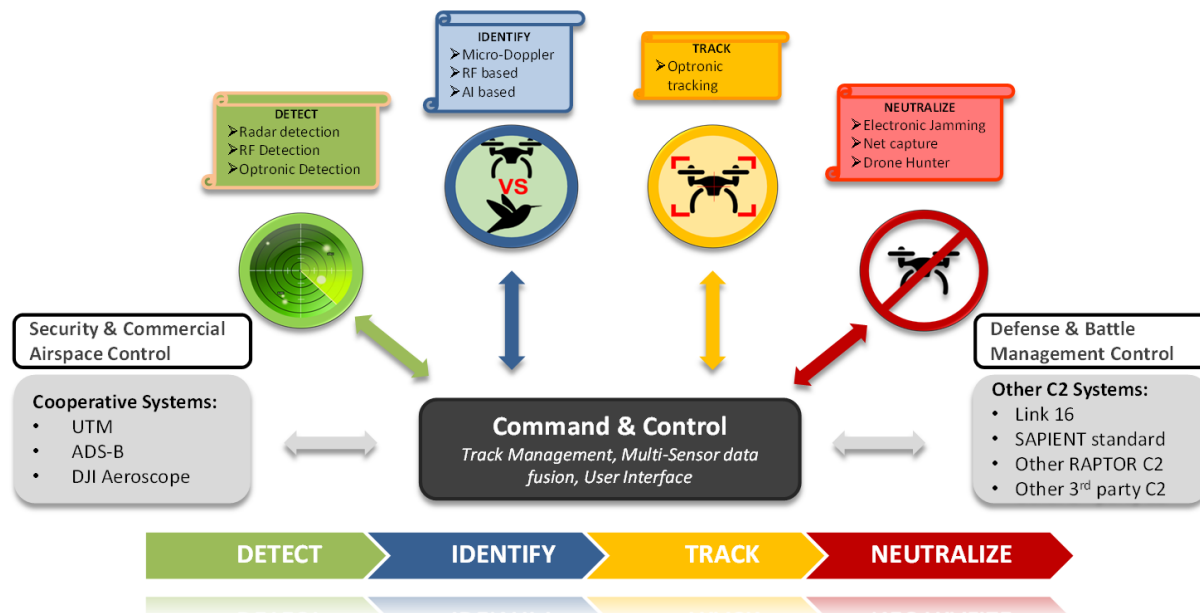
### A modular & scalable solution to secure critical sites or events

RAPTOR is a SMART solution:

- > Scalable: RAPTOR can be upgraded to extend capabilities.
- > Modular: configuration can be customised based on the user's needs.
- > Autonomous: can be configured to operate with limited human intervention.
- > Rapidly deployable: can be used to protect events.
- > Transportable: RAPTOR is based on light units packed in transport cases.

## → An open & modular architecture with specific sensors

RAPTOR standard configuration includes a radar, day/night video identification & tracking , an ADS-B Receiver, and a net launcher, all integrated with the C2. Customized versions for specific needs can be proposed.



RAPTOR is based on the following blocks:

- > **Command and Control (C2)**  
The heart of the RAPTOR solution is a real time command and control capability developed by CS GROUP, enabling the interconnection and management of various sensors and effectors, according to your need.
- > **Detection:** 2D or 3D radar featuring object classification algorithm combined with thermal radar or radio frequency detection.
- > **Security & commercial airspace control systems:** Support of cooperative systems such as UTM, ADS-B and DJI Aeroscope.
- > **Defense & Battle management control systems:** Support of Link-16, SAPIENT, Other RAPTOR C2, and third party C2.
- > **Identification & tracking:** Target confirmation and optronic tracking.
- > **Neutralization:** Target neutralization using dedicated effectors such as jamming or net launcher.

## → CS Group references

CS Group has been working on its C2 system since 2006, and has developed strong expertise in C-UAS domain. CS Group has been awarded several C-UAS projects, such as:

- > System delivered to French police for securing major events (Euro 2016 & Euro 2020, Bastille Day parade, etc.)
- > Contract awarded by French MoD for sensitive sites security.
- > Coordinator of European research project ALADDIN, which aims at developing a European counter-drone system (under program H2020 n° 740859), with a role of leader for global integration and C2.
- > Coordinator of Canadian research project Raptor for prisons security.
- > Coordinator of Canadian research project DCOI as part of the IDEaS program for the Department of Defence Canada.

## ABOUT CS GROUP

As prime contractor in the design, integration and operation of mission-critical systems, CS GROUP is present all along the value chain for its customers. With a turnover of €200M and 2,000 employees, CS GROUP is an established supplier acknowledged by its major customers thanks to the expertise & commitment of its staff.



CS GROUP - CANADA Inc.  
400, Sainte-Croix Avenue, Suite 2300, St-Laurent (Qc) H4N 3L4  
Contact us : +1 (866) 748-8258 or [info@cscanada.ca](mailto:info@cscanada.ca)  
<https://www.cscanada.ca/products/raptor-cuav>