



DEFENSE & SECURITY



SUPPORT & PROTECT
THE FORCES IN ALL FIELDS

ENIM

CNIM, a long standing partner of Armed & Security forces since 1856

CNIM and its subsidiaries CNIM Air Space, Bertin & Exensor stand alongside with Armed & Security forces worldwide to accompany their transformation and address their challenges for today and tomorrow.

CNIM's systems and equipment contribute to the force projection and guarantee the protection of deployed forces and critical infrastructures.

The 160 years of industrial history is present in CNIM's culture and embodied by generations of engineers and technicians, committed to push back the boundaries of technology to create reliable and high-performance solutions.

▲ P.03	AIR	Tactical / Operational / Strategic Tethered aerostats
▲ P.04	SEA	Landing craft Naval equipment
▲ P.06	LAND	Motorized floating bridges Surveillance optronic solutions Multi-sensors surveillance networks CBRN threat detection
▲ P.11	CYBER	Cyber security Cyber intelligence

To meet the challenges of today's
& tomorrow's worlds



Aerostats

Cooperating with the main actors of the Defense, aerospace and space industries, CNIM Air Space – former Airstar Aerospace – designs and manufactures aerostats dedicated to surveillance and telecommunication missions.

Tethered aerostats

Lighter than air platforms to take onboard a large range of payloads answering surveillance and communication needs.

Compared to drones or standard aircrafts, the added value of tethered aerostats is their **persistence**. It offers the capacity to achieve missions over several days, weeks and even months while taking onboard **up to 250 kg of payloads at 1000 meters high**.



STRATEGIC – CONDOR TETHERED AEROSTAT

High altitude and large payload capacity for a broader spectrum and a quicker detection.

PERSISTENCE: 15 DAYS
 VOLUME: 1,600 M³
 DIMENSIONS: 11X30 M
 FLYING HEIGHT (AGL): 1,000 M
 PAYLOAD: UP TO 250 KG
 *AGL : "Above Ground Level"

OPERATIONAL – EAGLE OWL TETHERED AEROSTAT

The perfect compromise between payload capacity, altitude and logistical footprint.

PERSISTENCE: 7 DAYS
 VOLUME: 450 M³
 DIMENSIONS: 7X19 M
 FLYING HEIGHT (AGL): 600 M
 PAYLOAD: UP TO 90 KG



TACTICAL – WHITE HAWK TETHERED AEROSTAT

Low logistical footprint and rapid deployment to meet the needs of operational theatres.

PERSISTENCE: 5 DAYS
 VOLUME: 40 M³
 DIMENSIONS: 3,4X4,4 M
 FLYING HEIGHT (AGL): 200 M
 PAYLOAD: UP TO 5 KG



Innovative Landing Craft

Innovative and adaptable, the L-CAT® Landing Craft range supports all kind of expeditionary amphibious operations worldwide.

L-CAT® Ship-to-shore

High Speed Naval Connector

Sea & Combat proven, the L-CAT® Ship-to-shore is a **force multiplier** for large LPDs and LHD's*. Deployed from any US type well-deck, it enables **over the horizon amphibious operations** with short loading & unloading rotation time thanks to its Roll-On / Roll-Off configuration and variable draft system. The L-CAT® Ship-to-shore has **excellent landing capabilities** on any coastal infrastructures (quay, slipway and beach).

* LPD: Landing Platform Dock, LHD: Landing Helicopter Dock



127 M³ USEABLE PLATFORM
100 TONS OF EQUIPMENT AND SUPPLIES
500 NM
30 KNOTS TOP SPEED

L-CAT® Shore-to-shore

Regional Force Projection Craft

The L-CAT® Shore-to-shore is a key enabler of **standalone force projection** on a regional scale and is suitable for long-range amphibious, disaster relief and maritime security operations.

CNIM offers **tailored systems & equipment packages** (weapons, C2 systems, sensors) to fit operational needs. A follow on of the L-CAT® Ship-to-shore, the L-CAT® Shore-to-shore allows **rapid deployment & quick access to littoral areas**.



127 M³ USEABLE PLATFORM
100 TONS OF EQUIPMENT AND SUPPLIES
800 NM
22 KNOTS TOP SPEED



LCA Landing Craft Assault

Operational support for Ground Forces

Adaptable to any type of amphibious ship, NATO or Makassar class, the LCA is designed to efficiently transfer equipment and troops ashore (up to **80 tons**). Robust, reliable, with excellent mobility and maneuverability, the LCA lands and reembarks **Ground Forces** in record time during amphibious assault operations.

By 2030, 14 LCA will be in service in the French Navy, under the name **EDA-S**.



Naval equipment

CNIM designs, manufactures and commissions naval equipment for complex high-performance applications on board surface vessels and submarines.

✓ Product Life > 25 years	✓ Severe environment	✓ Reliability	✓ Weight reduction	✓ Guaranteed performances
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Missile & torpedo storage, handling & lifting systems

Missile launching systems



Special doors



Surface & Underwater vehicles Launch & Recovery Systems



ROV (REMOTELY OPERATED VEHICLE)
 AUV (AUTONOMOUS UNDERWATER VEHICLE)
 USV (UNMANNED SURFACE VEHICLE)



Motorized Floating Bridges

CNIM provides high performance world class floating bridges to global Land Forces for military and disaster relief operations.

PFM

Proven performances for the last 30 years



The PFM is a tactical wet-gap crossing solution adapted to today's Land Forces needs. Rugged and reliable, it can be deployed as either a **MLC* 70T / 80W continuous floating bridge** or a **roll-on roll-off ferry**.



Built from self-propelled sections it is deployed over a short time period, **(30' for a 100 m long bridge)** with **minimum staff** and no auxiliary boats.

* MLC: Military Load Classification

New tactical & operational assets

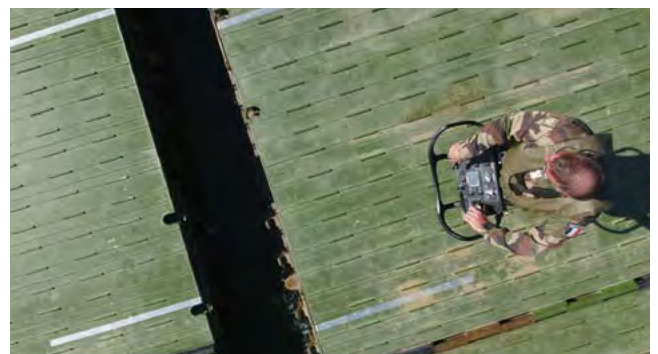
Facilitated operational deployment



CNIM has reduced the logistic support requirements of its PFM to answer the new operational needs of the Armies:

- Modules with incorporated ramps
- Tactical airlift

A single remote control station to operate the PFM modules.



Reduce & optimize human resources and logistic footprint. Example of savings made for a 20-meters long ferry:

- Number of vehicles: -50%
- Human resources: -70%



PFM New Generation

Versatile motorized floating bridge for all crossing military doctrines



- MLC 85 T / MLC 100 W
- Remote control
- Interoperability with NATO Floating Bridges

The PFM New Generation keeps all the key features of the proven PFM: quick build & retrieve, pontoon's rigidity & safety, autonomous section (outboard motors), access to unprepared banks and offers new performances to adapt to heavier vehicles and to reduce the logistics footprint.

TACTICAL



The PFM New Generation offers a **minimum logistic footprint** while guaranteeing the Engineering Forces a strong crossing capability.

MODULE LENGTH: 10 M
CARRIED BY DEDICATED SEMI-TRAILER

HIGHLY MOBILE



Carried by **standard 8x8 fleet** already on the field, featured with an easy implementation, the PFM F3 then provides unmatched crossing capabilities on a global scale.

MODULE LENGTH: 7 M
ON DROPS PLS NATO STANDARD
AIRLIFT FOR MLC 40 FERRY: 2 X A440M

Options

- **MLC 100 T / MLC 120 W:** compatibility with the future tanks
- **Autonomous navigation and locking:** minimal logistics footprint, maximum safety

Surveillance optronic solutions

Bertin offers leading-edge optronic devices dedicated to the Detection, Recognition & Identification (DRI) of targets in all conditions, including high-risk environments.

CamSight®

Digital compact core cameras

Targeting integrators and vehicle manufacturers, the CamSight® range of equipment are camera modules integrated into complex optronic systems. Reliable and easy to maintain, CamSight® modules are available in several versions:

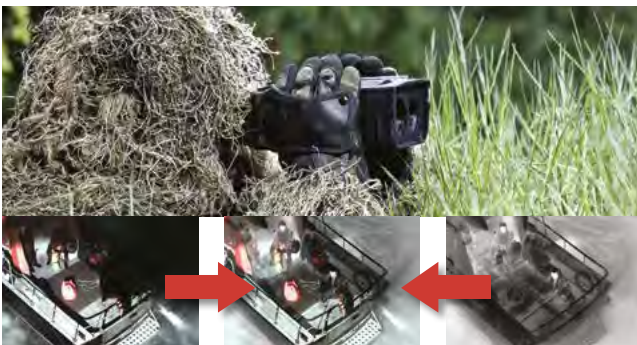
- CamSight® IR: thermal sensor
- CamSight® LL: low light sensor
- CamSight® LP: low power thermal sensor



The new **CamSight® LP** module, low consuming and ultra compact, can be implemented even in constrained environments to **fulfill any surveillance missions**. It can also be integrated in autonomous vehicles (UAV, UGV) or in sensors systems (UGS).

FusionSight®

Lightweight Night & Day Vision Enhancer



Low Light Color Vision Smart fusion Thermal Vision

Fully digital and designed to meet users' needs, the FusionSight® combines two viewing modes, based on **low light color** and **thermal cameras**, to be used separately or in **smart fusion mode**. This reliable handheld device is most efficient when used to unveil camouflaged enemies in operation.

PeriSight®

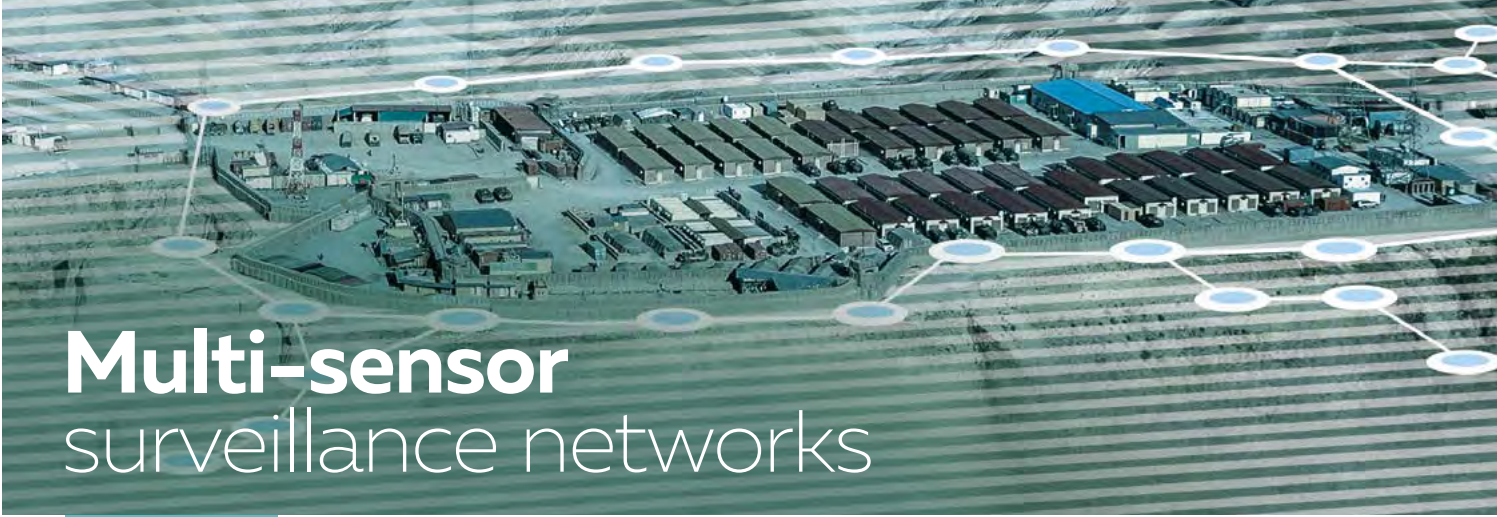
Night & Day vision enhancer for vehicle and sensitive site surveillance



© Arqus - Scarabée

The PeriSight® is a patented **network of imaging sensor modules** offering multiple viewing channels - low light color and thermal. The system provides **night and day 360° surveillance** in short and long range (in zoom version) to enhance **Land Situational Awareness (LSA)** and **Driver Vision Enhancement (DVE)** for driving and manoeuvres.

Developed to meet customers' requirements, the PeriSight® is **compatible for critical areas surveillance and with all kinds of vehicles for integration**.



Multi-sensor surveillance networks

FLEXNET is a wireless mesh networked Unattended Ground Sensor (UGS) platform dedicated to military surveillance, homeland security & critical infrastructure protection applications.

Intelligent autonomous UGS

Seismic & acoustic / passive Infrared / remote Day & Night camera

Exensor has been developed intelligent and wireless Unattended Ground Sensors and cameras able to detect, classify, identify and track moving objects on the ground.



UMRA Mini - **Seismic & acoustic detection and classification**



Passive Infrared sensors detect direction of travel



Scout Cameras - **Intelligent remote thermal and/or daylight cameras** triggered by sensors

FLEXNET

Scalable, mobile & wireless sensor platform



FLEXNET is a **modular, self-healing & wireless ground sensor platform** for mobile, semi-static & static surveillance. Its open architecture allows this system to be deployed as a stand-alone capability or become fully integrated with other platforms & Battle Management Systems.

FLEXNET provides early remote Detection, Classification and Identification of any threat in wide areas & complex terrain, both in LOS & NLOS* situations.

Designed for trained generalist and specialist users, this easy-to-use platform can be deployed in a few minutes.

**Line-of-sight & Non-line-of-sight*

CBRN threat detection

Bertin offers a comprehensive range of Chemical, Biological, Radiological and Nuclear (CBRN) threat detection solutions.

Second Sight® MS

Standoff Gas Cloud Detection Camera



This easy to deploy camera is able to **detect & visualize a large range of gas clouds up to 5km away, in real time.** The infrared imaging capability allows night & day **360° surveillance** of the environment.

Coriolis®

Portable Air Sampler for biological warfare agents detection



This ruggedized and easy to deploy, the Coriolis air samplers are dedicated to collect **biological warfare agents.** Its patented cyclonic technology enables long time monitoring of special areas in case of **bio-threat suspicion** and is compatible with any identification method.

SaphyRAD® MS

Multi-probe Military Survey Meter



This latest generation of **multiprobe survey meter** has been designed to be used in harsh environments, by all armed forces, to detect ionizing radiations. It associates a **wide range of specialized probes** for radioactive sources/hot spot search & contamination measurement.

SaphyGATE® GN

Smart radiation portal monitor for vehicle & load control



Following the highest quality standards, this new Radiation Portal Monitor aims at monitoring **illicit movements of radioactive materials in critical sites such as customs, harbors or airports.** It provides noninvasive inspection of vehicles and containers. Based on an innovative algorithm, the system warns the operating agent only in case of alarm or anomaly.

Cyber security & intelligence

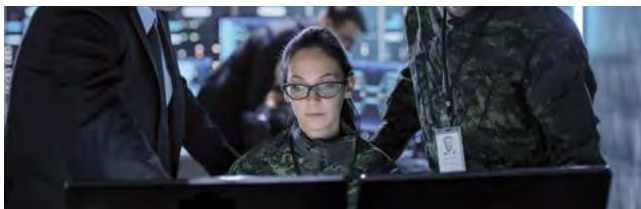
Bertin provides software solutions dedicated to the defense-in-depth of sensitive information systems and the advanced processing of digital & voice data for Cyber Intelligence and Speech Analytics needs.

Secure Data Exchanges Between Sensitive Systems



Configurable as a one-way (diode) or a two-way gateway, **CrossinG**® controls and secures the interconnections between networks of different sensitivity levels (e.g. public vs restricted, IT vs OT). It combines sanitizing, filtering and partitioning features so as to ensure the integrity and confidentiality of exchanges in critical environments.

Identify and Anticipate Threats Targeting States & Organizations



A cyberthreat intelligence platform, **MediaCentric**® offers strong capabilities for extracting relevant and hard-to-find piece of information from the clear/deep/ dark Web so as to investigate communities and individuals, and to detect threats to the states, signs of preparation of cyberattacks or targeted operations, fraud activities and data leakage.

Enhance Situational Awareness with Broad Digital Vigilance



Through **AMI EI**®, **MediaCentric**® and **MediaSpeech**®, Bertin IT provides a full solution range for in-depth monitoring and analysis of multimedia and multilingual contents from the Web (Social Networks, forums, dark web...) and offline Media (TV/Radio/Video) for the needs of OSINT and strategic intelligence analysts.

Detect Risk Elements in Phone Interactions



A powerful speech-to-text engine, **MediaSpeech**® enables in-depth analysis of conversational audio contents for lawful, tactical and strategic purposes. Through the detection of key words or expressions and the identification of languages and speakers, it provides alerts on elements and targets at risk.

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AIR

- TACTICAL / OPERATIONAL / STRATEGIC TETHERED AEROSTATS

SEA

- LANDING CRAFT
- NAVAL EQUIPMENT

LAND

- MOTORIZED FLOATING BRIDGES
- SURVEILLANCE OPTRONIC SOLUTIONS
- MULTI-SENSORS SURVEILLANCE NETWORKS
- CBRN THREAT DETECTION

CYBER

- CYBER SECURITY
- CYBER INTELLIGENCE



Worldwide
clients & partners



2,600
employees



690 millions €
revenues in 2018



62%
from export

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