



CBRN Protective Systems

« They protect us, we protect them. »





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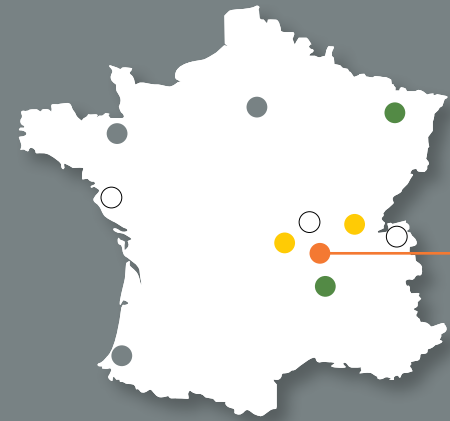
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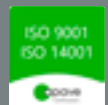
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OUVRY headquarters is located in Lyon, which is a major industrial and technological center, at the heart of our network of subcontractors, research laboratories and centers of excellence. Our manufacturing facilities situated a few meters away from the headquarters are based in the former Rhodiacéta spinning building.



GEOGRAPHICAL LOCATION

Headquarters



- Local offices
- Tailoring sites
- Textile production sites
- Injection sites

Textile manufacturing



Laboratory



OUR SKILLS



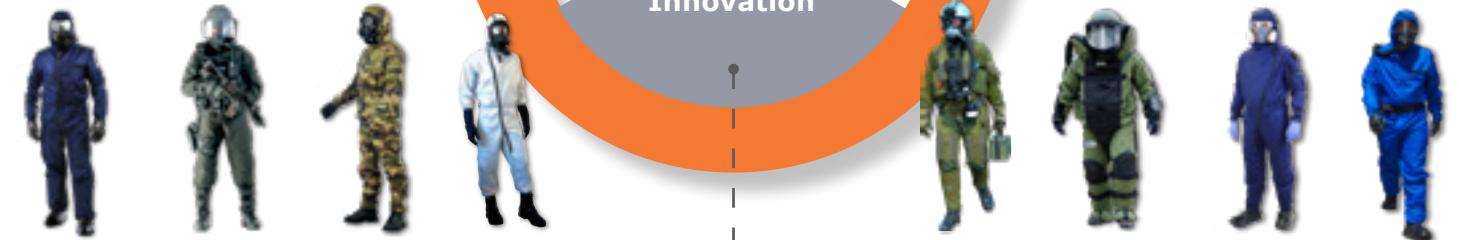
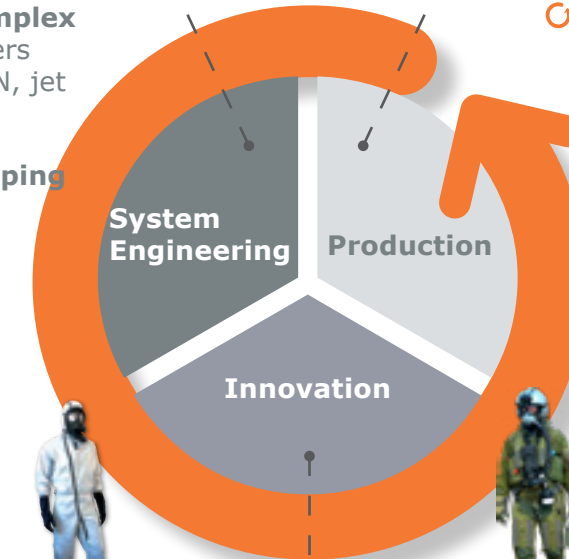
System Engineering

- **Our mission :** Design with the end-users the best CBRN personal protective system adapted to their missions and environments.
- **System integration on complex programmes :** French soldiers modernization program FELIN, jet pilots and EPIA Program
- **Design center and prototyping workshop**
- **Training and maintenance**



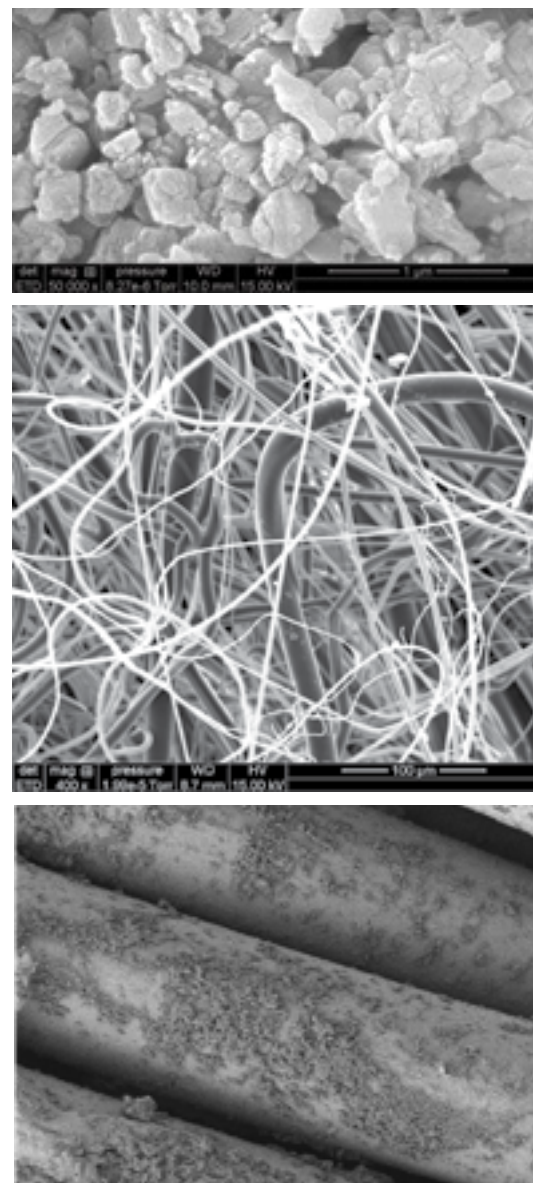
Production : supply chain management

- From raw material → to finished product
- Industrial manufacturing
- Low to medium volume production (> 20,000 pieces)
- Product development on demand



Innovation

- Technical and functionalized textiles
- Human factors : ergonomics, thermal-physiology and sensorial
- Chemical, Biological and Radiological decontamination
- Innovative materials : new MFE® filter fabric, DECPOL ABS®



R&D: 7% of the turnover



Eco-design

OUVRYP, prime contractor for CBRN complex programs:

- ▶ EDA (European Defense Agency) - EPIDARM
- ▶ ANR (National Agency for Research) - SELDEC
- ▶ DGA (Defense Procurement Agency) - PEA*
- ▶ Horizon Europe - Encircle, NanoMOF, TRANSTUN



Ouvry scientific and technological ecosystem:

SCIENTIFIQUE :



Lyon faculty of pharmacy / universities



National scientific research council



Atomic Energy Agency

LABORATOIRES :



Notified body specialized in technical and environmental risk control



French institute of Textiles and Clothing



Vinca's nuclear sciences institute (Serbia)



Institute for Radiation Protection and Nuclear Safety



National institute for CBRN protection (Czech Republic)



Military research institute (UK)

*Programmes d'Etudes Amont

Textile supply chain



LOCAL PRODUCTION

Injection of butyl OG05® gloves and OBOOTS® overboots



ADAPTATION - REACTIVITY



An ecosystem of > 200 people

Containment bag, body bag and EVACOPS® production



> 196,000 suits manufactured

SIM KIT® simulants production






> 820 customers


Present in > 46 countries



- Armed forces
- Fire-Fighters
- Law enforcement
- Intervention group
- Civil defense
- Critical infrastructures
- Special operations
- Medical and rescue
- VIP Close protection



Defense / Law enforcement



Emergency / Health



Undergarment



CBRN PROTECTION

OUR CONCEPTS

🕒 Defense / Law enforcement

- Liquid, vapor and aerosol risks
- 24h protection

🕒 Emergency / Health services

- Liquid, vapor and aerosol risks
- 12h protection

🕒 Undergarment

- Vapor risk
- 24h protection

CBRN combat suit



Ref: 540090

- Used by the French Army
- Air permeable, lightweight and robust two-piece suit

- Washable
- Different camouflage printing available

Tfi®

CBRN air permeable intervention overall

- Used by RAID, GIGN, BRI and Air/Land/Sea Special Forces entity
- Air permeable, lightweight and robust suit
- Washable
- Colors : coyote, black, dark blue, others on demand.



Ref: 540018

CBRN Permanent Wear

24 hours : liquids + vapors + aerosols

TARGET®

CBRN combat gloves



Ref: 510000

- In service in the French Army
- Great dexterity for handgun use
- Air permeable, extended wear time

CBRN air permeable socks



Ref: 501004

- Low thickness : compatible with in-service boots and shoes
- Comfortable
- Washable

G'BOOTS®

CBRN butyl overboots

- Enhanced protection against CBRN agents and TICs
- Lightweight
- Thermal and fire resistant
- Robust and decontaminable
- Antistatic



Ref: 500001



POLYCOMBI®



CBRN air permeable protective suit

- Lightweight and air permeable
- Washable
- Extend wear time
- Ideal for crisis management



Double sleeves



Integrated booties



Ref: 540540

CBRN Intervention
12 hours: liquids + vapors + aerosols

G05

CBRN butyl gloves

New product



Ref: 511008



- Low thickness, excellent dexterity
- Technical gestures easier
- Enhanced protection against CBRN agents and TICs
- Heat and fire resistant
- Antistatic and touch-sensitive
- Ambidextrous
- Robust and decontaminable
- Textured with a grip



G'BOOTS®

CBRN Butyl overboots

- Enhanced protection against CBRN agents and TICs
- Lightweight
- Thermal and fire resistant
- Robust and decontaminable
- Antistatic



Ref: 500001



CBRN PROTECTION

GCPU®

CBRN air permeable undergarment

- ⌚ Qualified by DGA
- ⌚ In service in the French Army and several EOD teams
- ⌚ Adapted to the protection of VIP, fire-fighters, Transport aircraft and helicopters pilots
- ⌚ To be worn under the regular work clothes
- ⌚ Washable, low thickness and comfortable
- ⌚ No thermo-physiological impact

FTC®

CBRN air permeable hood

Ref: 520003

- ⌚ Suitable with several CBRN masks
- ⌚ Stretch material
- ⌚ Optimal comfort and low thickness
- ⌚ Washable



Ref: 540210

UNDERGARMENT CONCEPT



Worn under in-service equipments

SECOND SKIN®

CBRN air permeable undergloves



Ref: 512002

- ⌚ Low thickness, stretch and excellent dexterity
- ⌚ Worn under in-service gloves
- ⌚ Washable

CBRN air permeable socks



Ref: 501004

- ⌚ Low thickness, comfortable
- ⌚ To be worn under the in-service boots and shoes
- ⌚ Highly robust and washable



⌚ CBRN Undergarment

⌚ 24 hours : vapors

CBRN PROTECTION

OPPS : OUVRY PILOT PROTECTIVE SYSTEM

AUTONOMOUS - ERGONOMICAL - LOW PHYSIOLOGICAL BURDEN - MULTIPLATFORM

🔄 Above-the-neck protection

CBRN air permeable hood



🔄 Flame-retardant air permeable CBRN material

🔄 Anti-fogging ocular protection

🔄 Optimized oxygen mask interface

Anti-fogging device



Hardened CBRN Oxygen mask



🔄 NATO compliant

🔄 Anti-drowning system

Compact PAPR + canister



🔄 Below-the-neck protection

Daily flight coverall worn on top



🔄 CPU®

CBRN air permeable undergarment



OPPS undergloves

CBRN air permeable undergloves

OPPS CBRN air permeable socks



6G proven / Ejection safe / Kerosene fire safe /
in-flight Valsalva / CBRN MIST tests

Qualified by DGA and used
by the French Armed Forces



Containment bags



Small



300 x 170 mm
Ref: 592003AA

Medium



750 x 300 mm
Ref: 592001AB

Large



1145 x 610 mm
Ref: 592002AA

CBRN Repair kit



Ref: 530004AB-U

CBRN hydration system

DRINK®

- 3L CBRN water bag
- Tactical carrying bag
- Masks adaptators



Ref : 531007AA-U : Water bag
Ref : 531012AA-U : Coyote bag
Ref : 531012AB-U : Black bag

Transport bag



Ref: 790001AA

Tactical transport bag for mask



Ref: 109034AA-U



Ref: 109034AB-U

Storage bag



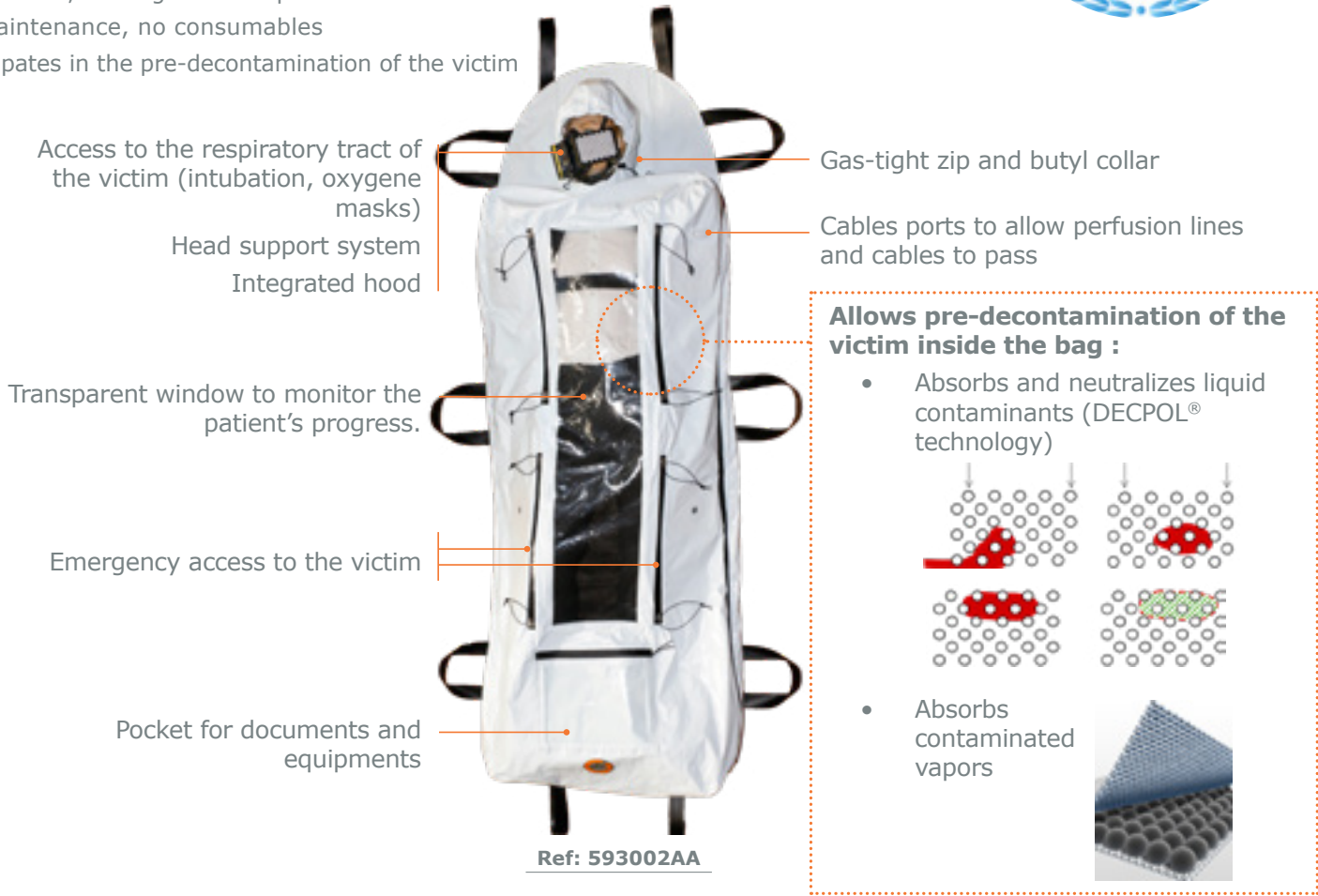
Useful to carry one mask
and two canisters
Ref: 109019AA



MEDICAL TRANSPORT

EVACOPS® : Extraction bag for CBRN contaminated victims

- ⌚ Reduces the risk of chemical and radiological contamination of personnel and means of transport.
- ⌚ Transport of a contaminated victim to a medical safe medical area
- ⌚ NATO stretcher compatible
- ⌚ Easy to use, low logistics footprint
- ⌚ No maintenance, no consumables
- ⌚ Participates in the pre-decontamination of the victim



AIR PROTEC®

Mobile isolation system - Biological risks

- ⌚ Reduces the risks of biological contamination of caregivers and means of transports.
 - ⌚ Ensures patient care without isolation break
- Composed of a mobile isolation bubble (M.I.B) and a mobile suction system (M.S.S).

Ref: 593005AA-U



- ⌚ Class I Medical Device
- ⌚ Easy to use, maintenance free
- ⌚ Quickly reusable and decontaminable
- ⌚ Easy-to-carry and space-saving
- ⌚ Long autonomy
- ⌚ Ecological and respectful of the environment



CBRN body bag



Ref: 593001AA

- ⌚ Containment during evacuation and storage of contaminated bodies
- ⌚ Sealable
- ⌚ Identification window and transparent pocket for documents and equipment
- ⌚ Body fluids absorption
- ⌚ Retaining straps inside and handling straps outside
- ⌚ Decontaminable on surface
- ⌚ RD40 connection to put a gas filter canister
- ⌚ Freezable, incinerable, and compatible with medical imaging.



DECONTAMINATION

DEC'POL RAD® - Radiological decontamination wipe

DECPOL RAD® non-woven wipe impregnated with RADECOM® solution



Réf. : 600007

Mode of action

- Chemical action of the RADECOM® impregnated solution which detaches the particles from the surface
- Mechanical action of the wipe which removes the detached particles from the surface

RADECOM

Degreasing solution for radiological decontamination



- Lint free
- Inert
- Skin friendly
- Very good wiping and absorption performance on all kind of surfaces (smooth or with roughness)

DEC'POL ABS® Polyvalent CBRN decontamination wipe

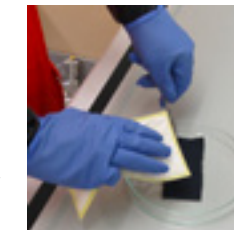
DECPOL ABS® Dry emergency decontamination wipe



Ref: 600006AA-U



- Biocompatible (healthy and wounded skin)
- Absorbs quickly any suspect product with no exothermic or explosive reaction
- Avoids the risk of cross contamination
- No spread of contaminated powder, nanoparticles, fiber
- Tested on real CWA : >99% (HD-VX)
- Shelflife : 10 years



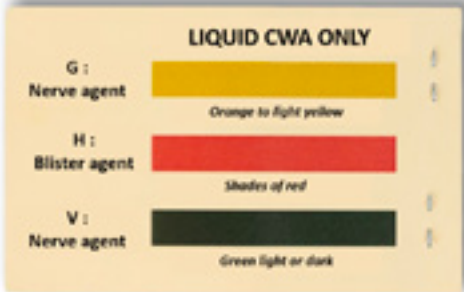
DETECTION IDENTIFICATION

Colorimetric detection tubes



- Detection tubes for chemical warfare agents and TICs in vapor form (list on demand)
- Detects the presence of toxic chemicals in the air
- Compatible with manual and automatic pumps

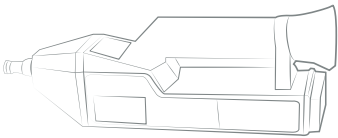
Colorimetric detection paper



Ref : 200000AA

- Detection of HD, GB and VX in liquid form
- Self-adhesive paper
- 12 pages booklet

Chemical detection and contamination control apparatus



Ref: 230002AA



Sampling kit



- Sampling accessories, wipes, pliers, marking, etc.

Chemical, biological and radiological emergency protection kit



Ref: 560001AC



NH15® Hood



DECPOL® ABS wipe



Protective gloves



Sizes : small / large

Immediate protection :
Safety and security personnel, sensitive sites, VIP close protection, hospital reception services, NGOs, journalists.



Quick response kit

Ref: 560002AA



Impermeable suit type 3



DECPOL® ABS wipe



NH15® Hood



Butyl gloves



Single use overboots

Public Health, MoH, Center Disease Control, Hazardous transports, embassies

Intervention kit

Ref: 560003AA



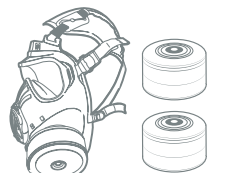
Polycombi®



DECPOL® ABS wipe



OC50® + 2 canisters



Butyl gloves



OBOOTS® Butyl overboots

Sizes M/XL

Civil Defense, embassies, NGO, UN, Fire-fighters

SIM KIT®

For realistic courses and trainings

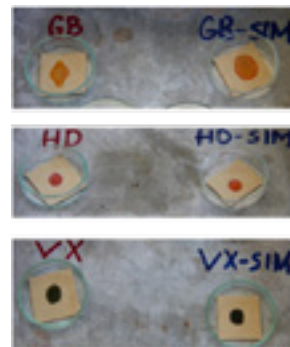


H-V-G Chemical Warfare Agent simulants

- 3 simulants with the same physical and chemical characteristics as real agents
- Works with in-service detection equipments and systems
- Fluorescent agents with UV lamp



Ref: 310001AC



Fluorescent marker kit



Ref: 310002AA

- Water & oil fluorescent markers
- UV lamp and protective glasses

Banana oil



Ref: 310003AA

- For quick control of the proper mask fit in first intention (through smell)

PPE training version

PPE training version for training, instruction and courses

- Design and comfort identical to operational equipment
- Allows repeating the dressing and undressing procedures on the operational plan
- Preserves the strategic stock of operational equipment
- Washable and reusable



TFI: Ref: 740018AA

POLYCOMBI® Ref: 740540AA

COMBAT SUIT: Réf: 740090

TARGET® Ref: 710000AA

Training canisters



Ref: 751000AA

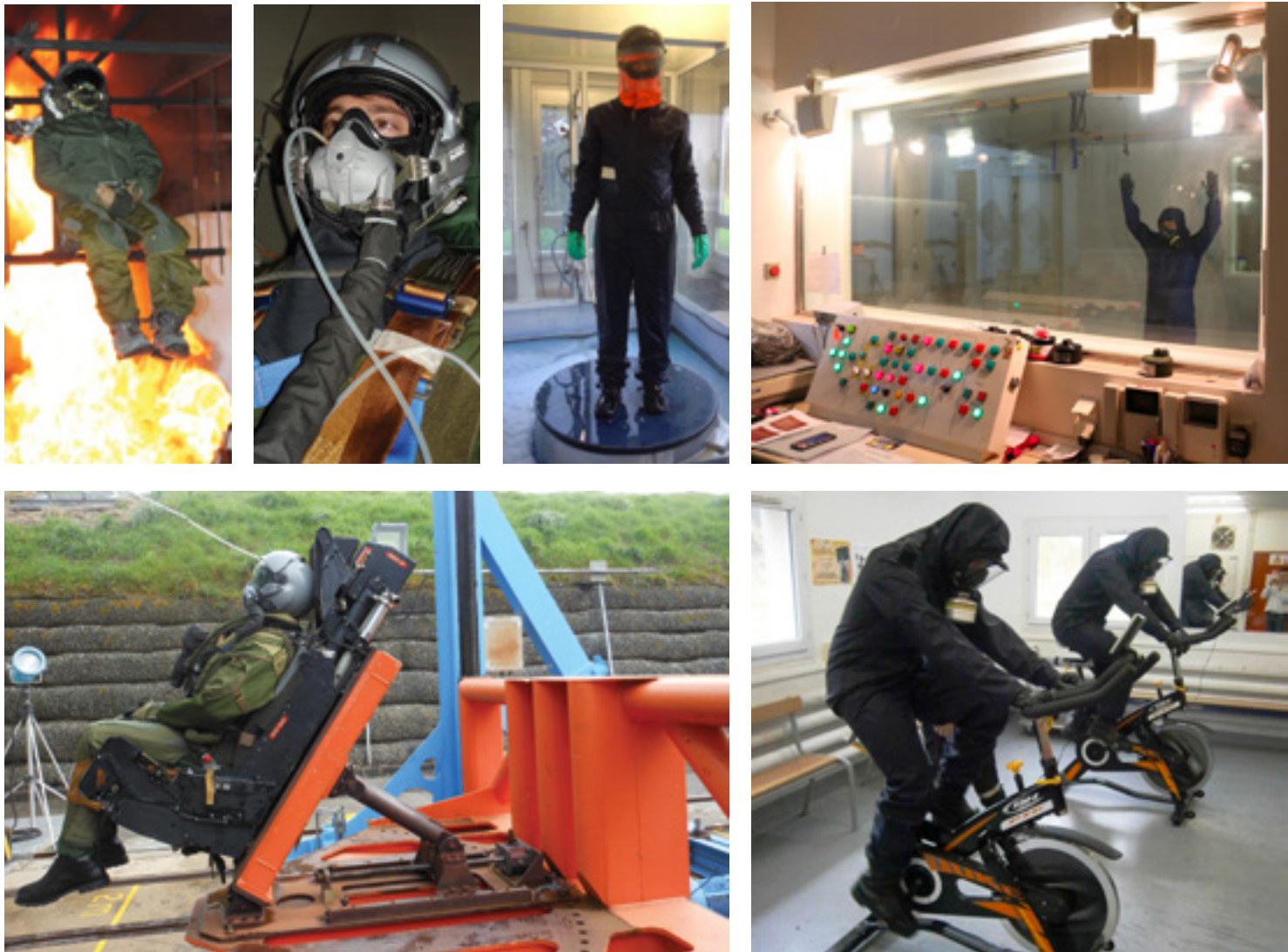
NRBC® Professionnal training

Training organization Nr. : 84 69 1815469

- Audit
- General CBRN training (Risks / protection solution)
- Training in the use of CBRN PPE
- Instructor training
- Customized training
- Maintenance training



Ref: 300000AA



Technical and instructive supports

Videos, posters, user guides, presentation



Protocole d'habillage / Donning procedure



Points-clés déshabillage / Doffing key points

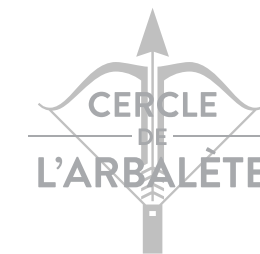


Adaptable, reactive and optimised logistics





NOTES



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