ECASC VALABRE: THE TRAINING CIVIL PROTECTION SIMULATION SYSTEM

AN EXCLUSIVE AND INNOVATING EXPERIMENT

ECASC . Civil protection training college - France
HISTORY:

- **Years 1980:** Installation of sand box forest fires in tactical room
- **Year 1998:** Use of flight simulator for the guidance of the aerial means
- **Year 1999:** Starting of work of a tactical simulator forest fires
- **Year 2001:** Use of the V1 simulator
- **Year 2012:** Version V 3 in place
- **Year 2014:** Change of technology and software towards Next gen middle ware graphical engine and opening of simulation to the multi risk.
- **Year 2015:** Opening of the Euro-Mediterranean Center of Risk Simulation (CESIR) and deployment of a mobile simulator.
- **More than 12 000 trained firemen, certified, 40 accommodated nationalities.**
WHY?

• Full scale exercises have been for a long time the only opportunity to train fire fighter competencies when the courses in classroom are not enough efficient.

The main problem is: human and technical costs
• THE SIMULATION TRAINING SEEMS TO BE THE BEST TOOL TO
  ANSWER THE NEEDS OF THE MANAGEMENT TEAM AND
  OFFICERS IN THE FIRE BRIGADES

• IT'S THE ONLY SYSTEM THAT PROVIDES A GLOBAL VISION
  OF THE PROCEDURES AND OPERATIONAL SYSTEMS
• **Simulation provides to trainers new possibilities:**
  
  • Fast and big choice of scenarios
  
  • Reproductibility of the situations for each trainees
  
  • Possibilities to deploy large amount of situations and exercises by day of training
  
  • No weather or logistics constraints
  
  • Possibilities to stop the exercise at any moment, make a snapshot, debrief and continue or begin again
  
  • Time to imagine become time to manage situations

**Can you do it with something else?**
• **Universality of the concept**: Example of the CTIF Course

• There is only one barrier:
  
  A political will to train officers to upgrade regularly their competencies
HOW?

• THE CONCEPT OF TRAINING ON TACTICAL SIMULATOR IS BASED ON THE HUMAN INTERACTION OF PROFESSIONALS OF CIVIL PROTECTION FACE TO REALISTIC OPERATIONAL SITUATIONS AND CONSEQUENCES ON THE TACTICAL CHOICES, METHODS OF COMMAND, SELECTED OPERATIONAL ORGANIZATION... WITH THE CESIR, 24 ACTORS CAN BE TRAINED SIMULTANEOUSLY IN THE SAME VIRTUAL ENVIRONMENT (UNIQUE IN THE WORLD).
• **THE SECURITY OF THE SYSTEM IS BASED ON THREE POINTS:**
  
  • **HARDENED AND RECOGNIZED, OPERATIONAL TRAINERS WITHIN THEIR UNITS**
  
  • **PROFESSIONAL OPERATORS OF SIMULATION (6 IN VALABRE)**
  
  • **A SYSTEM ENDURING AND RELIABLE (1% OF MAXIMUM BREAKDOWN)**
TOPICS OF TRAININGS:

- FOREST FIRE WITH AN UNIQUE WORLD CONCEPT
SUR PLUS DE 800M², LE CESIR DÉVELOPPE DEUX ENSEMBLES COMPLETS DE SIMULATION

INFRASTRUCTURES:
• **CESIR**: 2 simulation twin room configurations connectable in 800 m². Rooms: 2 planes, 2 command posts, 2 helicopters, 1 boat, 18 training stations, 1 amphitheater of 200 places, 2 classrooms with personal computing stations, 1 EXCON for 4 operators

• **Materials**: 200 computers, 260 display systems (interactive screens, radios, screens, interactive video beam projectors, Oculus Rift...) 18 cameras, 160 kilometers of cables...
EXCLUSIVE COMPETENCES OF THE ECASC IN SIMULATION:

• IMPLEMENTATION OF TRAINING SESSIONS OR ACQUISITION OF INITIAL COMPETENCES IN ALL THE FIELDS OF OPERATIONAL MANAGEMENT OF RISKS IN CIVIL PROTECTION AREA

• CREATION OF ADDITIVE SOFTWARE BRICKS: ENGINE OF INTELLIGENT BEHAVIOR ON TOPICS: FLOOD, CBRN, POLLUTION, PANDEMIAS… BY DEVELOPERS ECASC FROM THE RESEARCH AND DEVELOPMENT SERVICE

• CREATION OF SPECIFIC AND CUSTOM-TAILORED ENVIRONMENTS 3D IN TILES OF 10KM BY 10 KM WITH 64 DISPLAYABLE TILES MAXIMUM AT THE SAME TIME. SUPPLY OF THE ASSOCIATED PAPERS MAP AND NUMERICAL DATA GIS.

• THE COUNCIL AND AUDITS ON THE INSTALLATION AND THE IMPLEMENTATION OF SYSTEM OF TRAINING PER SIMULATION (INFRASTRUCTURES, SOFTWARE, HARDWARE, TEACHING SYSTEM…)
THANK YOU FOR YOUR ATTENTION