

“Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people”





Generalitat de Catalunya

DGPEIS

Partner of Bombers

SGL for USaR



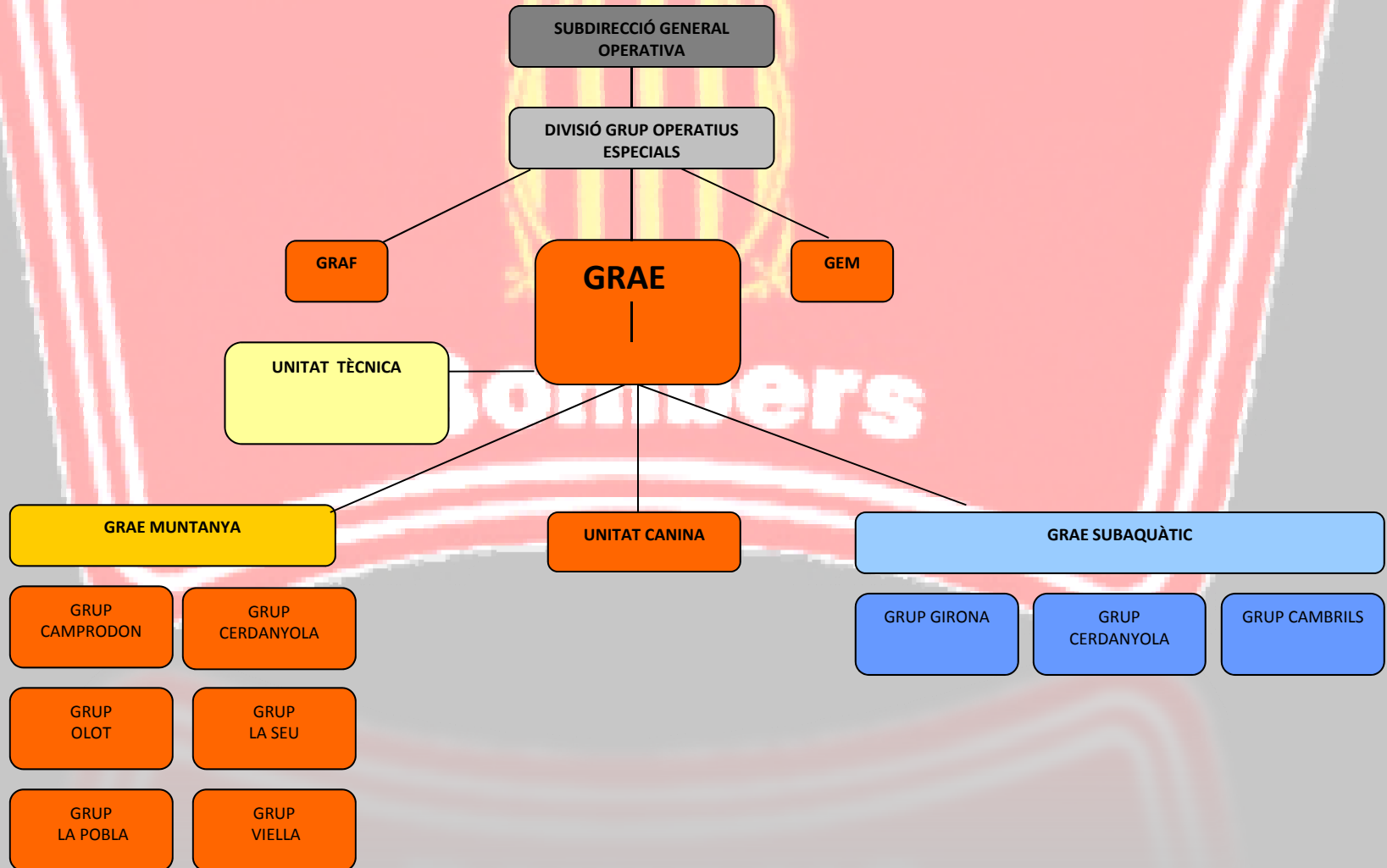


G R A E
E R A E

Support Group Special Activities



ORGANIGRAM

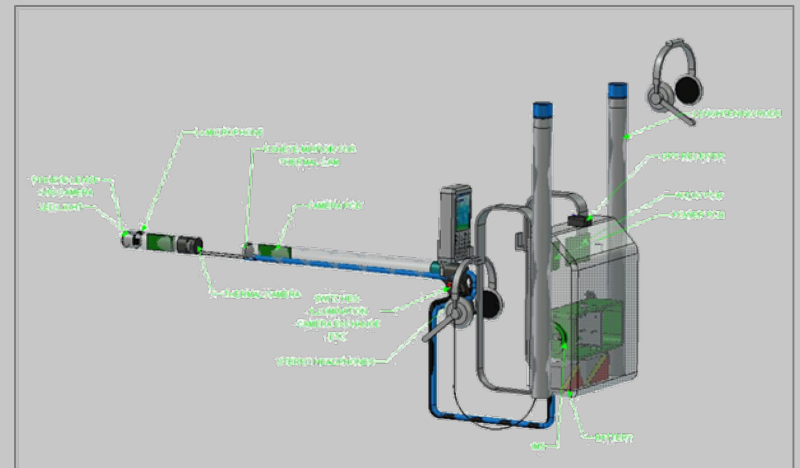


SGL for USaR

General context

Prototype of tool that facilitates the search for people in critical situations: victims buried by the collapse of a building.

Its ergonomics and system are currently being updated and improved according to recent research.



PRINCIPLE AIMS

To improve the rescue techniques of people in danger in collapsed or demolished buildings.

To study such a situation in a simulated case using specific methods in order to speed-up the rescue of victims.

To obtain maximum data that will allow further research and development on a European level.

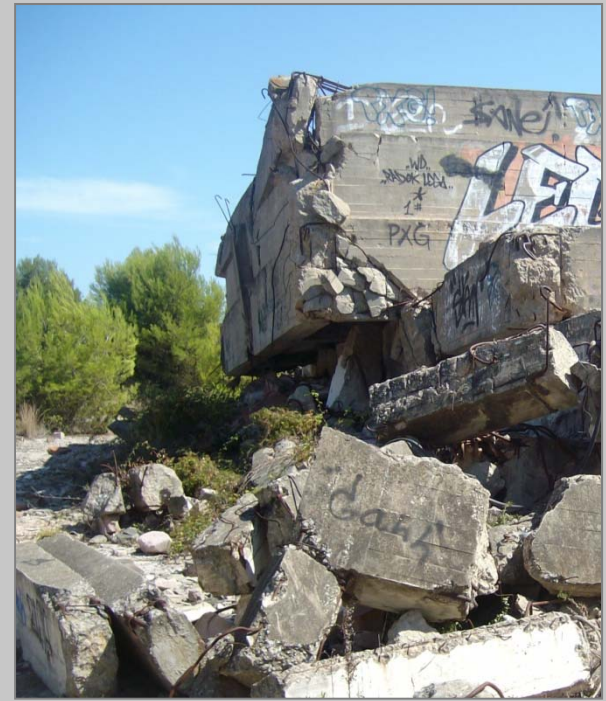


“Exercise in **USaR** Scenario – Catalan rescue team”

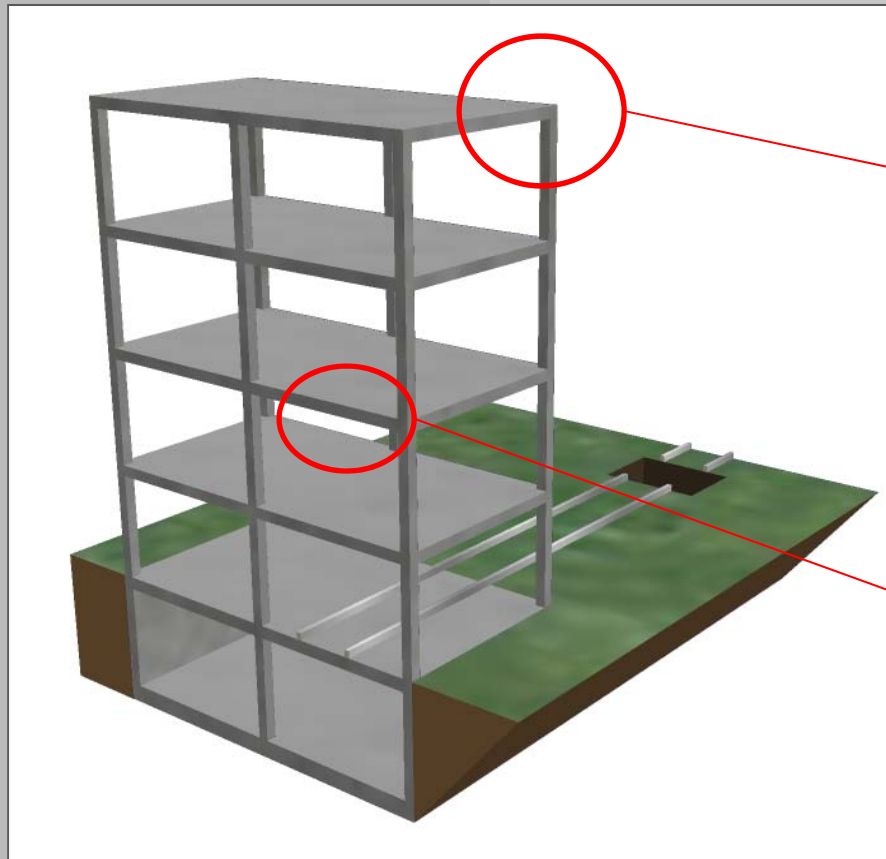


SCENARIO.-

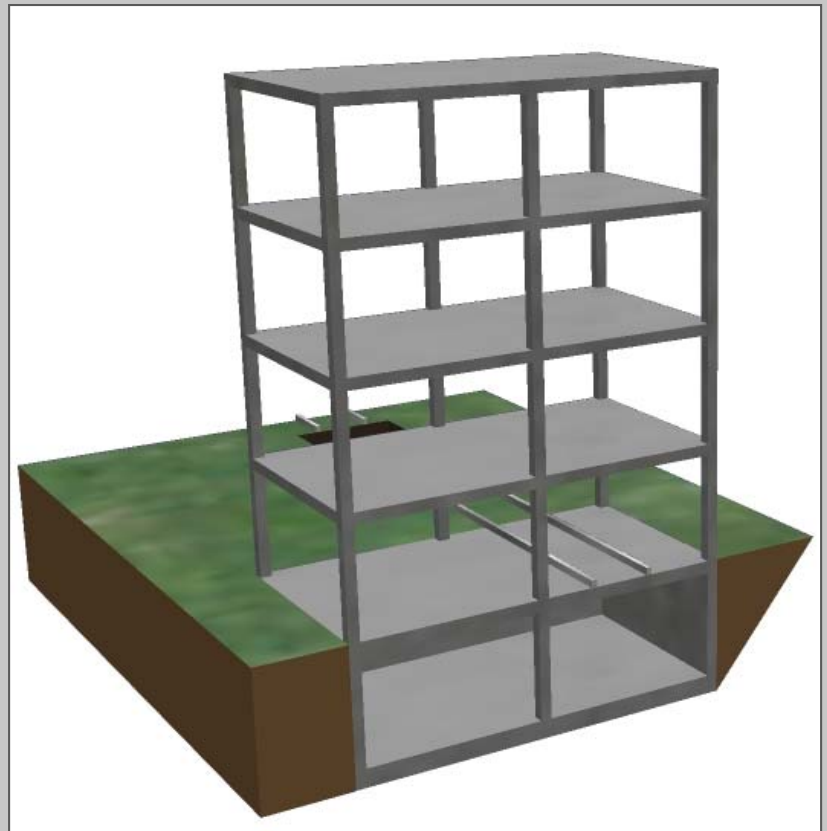
Practical example.- **FACTORY LOCATED IN GAVÀ**



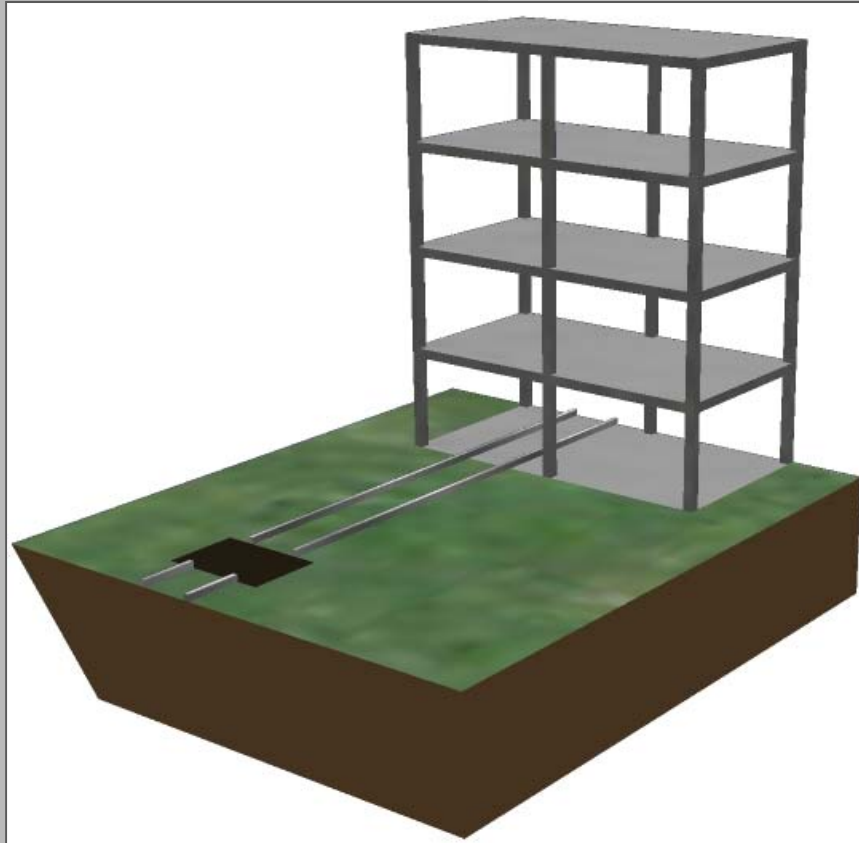
SCENARIO.-



SCENARIO.-

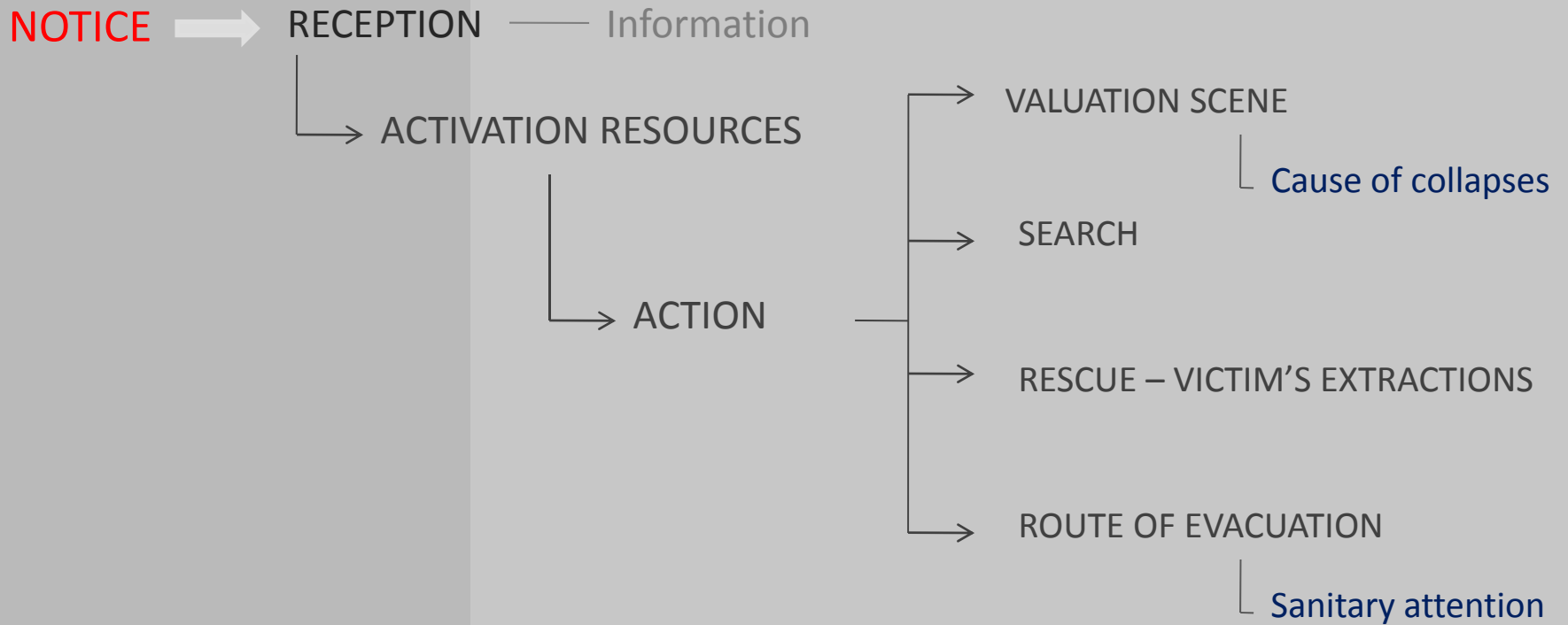


SCENARIO.-



PROTOCOL.-

Collapse's scene structure



STUDY PROCESS.-

General technical study

- Type of structure involved (applied loads, type of framework, structural elements)
- Behavior of the component materials (concrete, steel, wood)
- Analysis of the resulting state of the building and the causes of the collapse
- Results: structural hypothesis related to the collapse
- A general drawing of the situation

** The technical study and field work will be carried out with the necessary security measures.*

STUDY PROCESS.- Evaluation Scene

Basic points to follow in a situation of collapse

- A general perimeter study
- Observation of the scene
- Search for the originating cause: typically explosions, gas leaks, water leaks.

Factors in account

ACTUATION: Zoning of the space and establish the materials of organisation.

- Conditions of the environment
- Climatological conditions
- Time Slot
- Conditions of the group of rescue

TAKE INFORMATION.-

It is extremely important finding as much information as possible with the correct transmission of this at all effective.



STUDY PROCESS.- Research

Resources



UPC

Comandament zone.+ 1 fireman



BRP/BUP

Comandament of torn + 3 firemen



FSV

2 firemen



AEA

2 firemen



AMB

1 doctor + 1 nurse + 1 tecnic



2FRM

Specialists:
1 guide – unit canin
+2 GRAE

FIRT ALARM

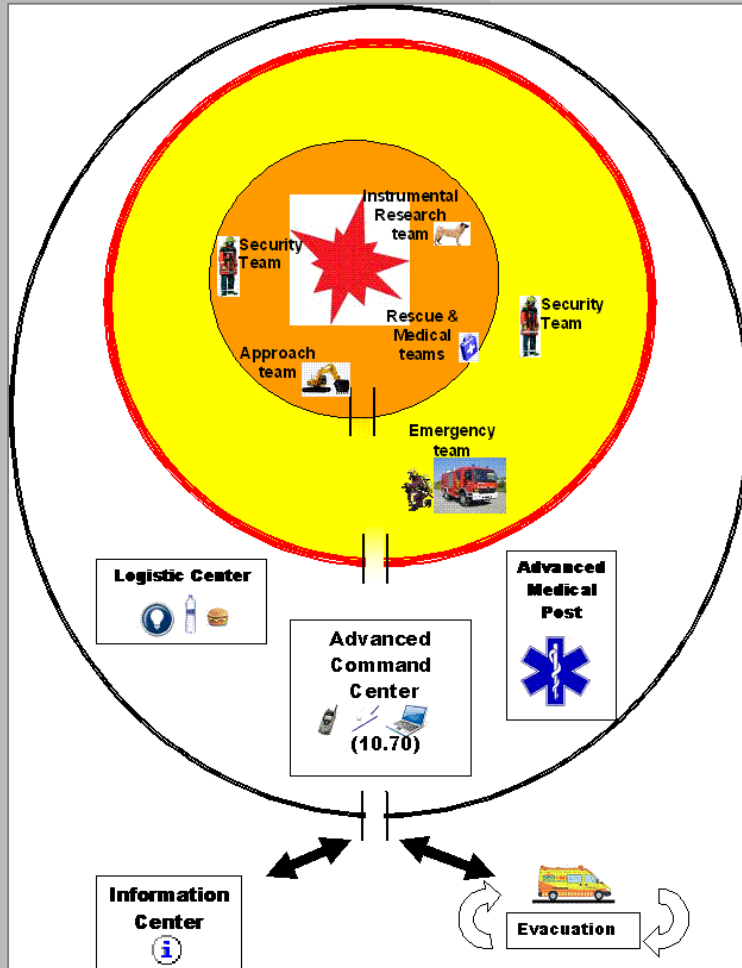
SECOND ALARM

SUPPORT



+ Others

WORK AREAS.-



- **SAFETY TEAM:**
 - Collecting information
 - Ensure perimeter
 - Monitor and evaluate hazards and collapse
 - Ensure the safety of other teams in the hot zone
- **INSTRUMENTAL RESEARCH TEAM:**
 - Research and find the victims
- **APPROACH TEAM:**
 - Stabilization of the area
 - Clearing the zone
 - Mobilisation victims
- **RESCUE AND MEDICAL TEAM:**
 - Stabilizer
- **EMERGENCY TEAM**
 - Support and protection to other rescue team

SIGB (MODE DIFERIT) (tr) LAN 16:52:16

Arxíu Gestió ORTO 10.000 1/10000 (1/10000) 100% 14 Mòbils GPS Memòria Actual: 23172 KB Màxima: 168536KB

UTM(420576, 4577927) MAPA 420-4 SOC 35BI-11 SEGUINT EL 02062: Vel:0 UTM(418959, 4576627) MAPA 420-4 SOC 34BI-19 Cerrar

Mostrant: Mostrant

Data i Hora Inici: 24/01/09 10:27:49 Increment (s): 60 Data i Hora de la Vista: 24/01/2009 12:57:49

Selecció Període: Data i Hora Final: 24/01/09 16:43:58 Cadència (s): 1

Regions i ABEs: Zoom 100%
Escala + Escala - + -

00090 P-1
02062 P-1
03450 P-1 [51530]
03472 P-1 [51530]
50091 P-1
50092 P-1 [51530]
50097 P-1
50162 P-1 [50750]
50430 P-1 [50750]
50750 P-1
51530 P-1
COR02 P-1 [02062]
GD0SUD P-1
SFE03 P-1 [02062]

ORTO 10.000() Nou Nou Nou Nou

Missatges Rebuts / Missatges Enviats

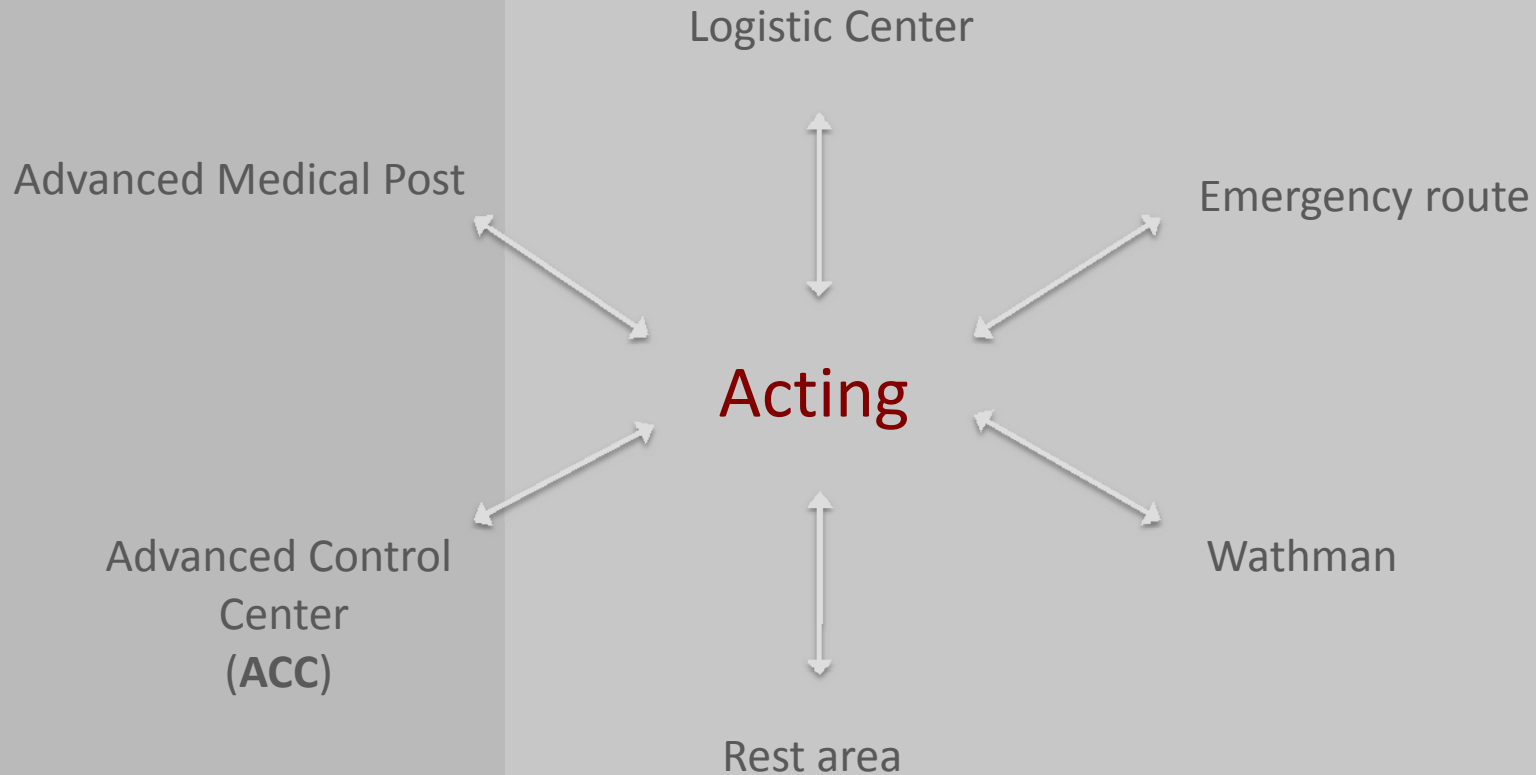
Rebut de	Missatge	Data i Hora	Enviat a	Missatge	Data i Hora	Estat
41990	SORTIDA AMB 2	30/01/09 16:47:23				
41530	SORTIDA AMB 3	30/01/09 16:44:24				
41640	ARRIBADA PARC	30/01/09 16:47:38				

Forestal | Inundació | Normal | Químic | Trànsit

Pág. 3 Sec. 1 3/4 A 2,5 cm Lín. 1 Col. 1 GRB MCA EXT SOB Catalán

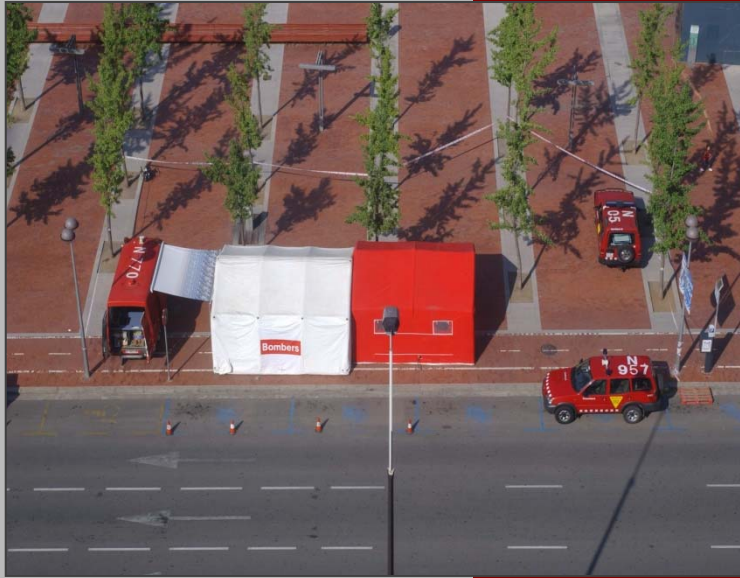


STUDY PROCESS.- Acting





LOGISTIC CENTER



DIFERENTS Advanced Control Centre (ACC)

Research Protocol.-

Localitzation victims

Surface victims

Research in holes

Research in specific places (Information)

Take out ruins



Start Triage

START TRIAGE.-



Visual Inspection.-





VÍCTIM ON THE ROOF



INSPECTION OF HOLES

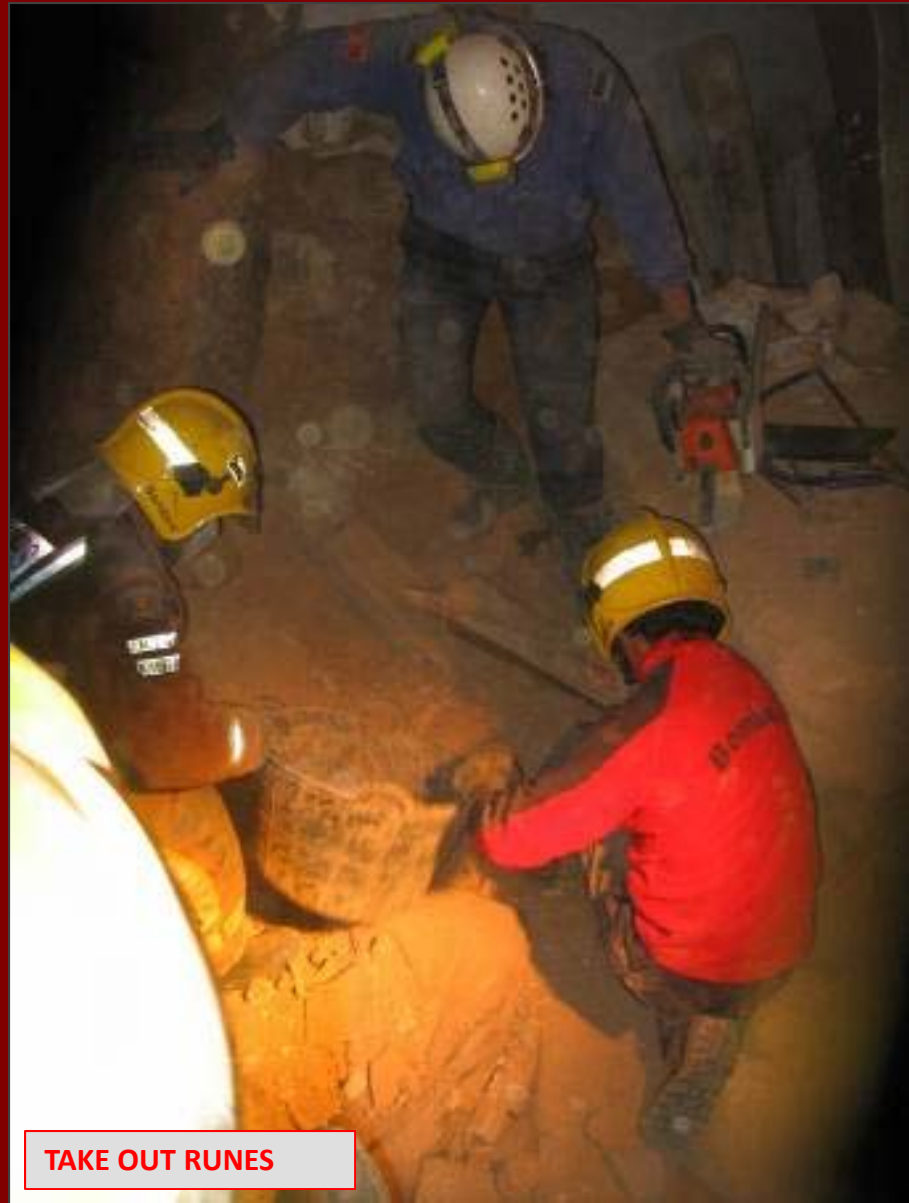








STABILIZATION SYSTEM



TAKE OUT RUNES







THANK YOU VERY MUCH FOR YOUR ATTENTION