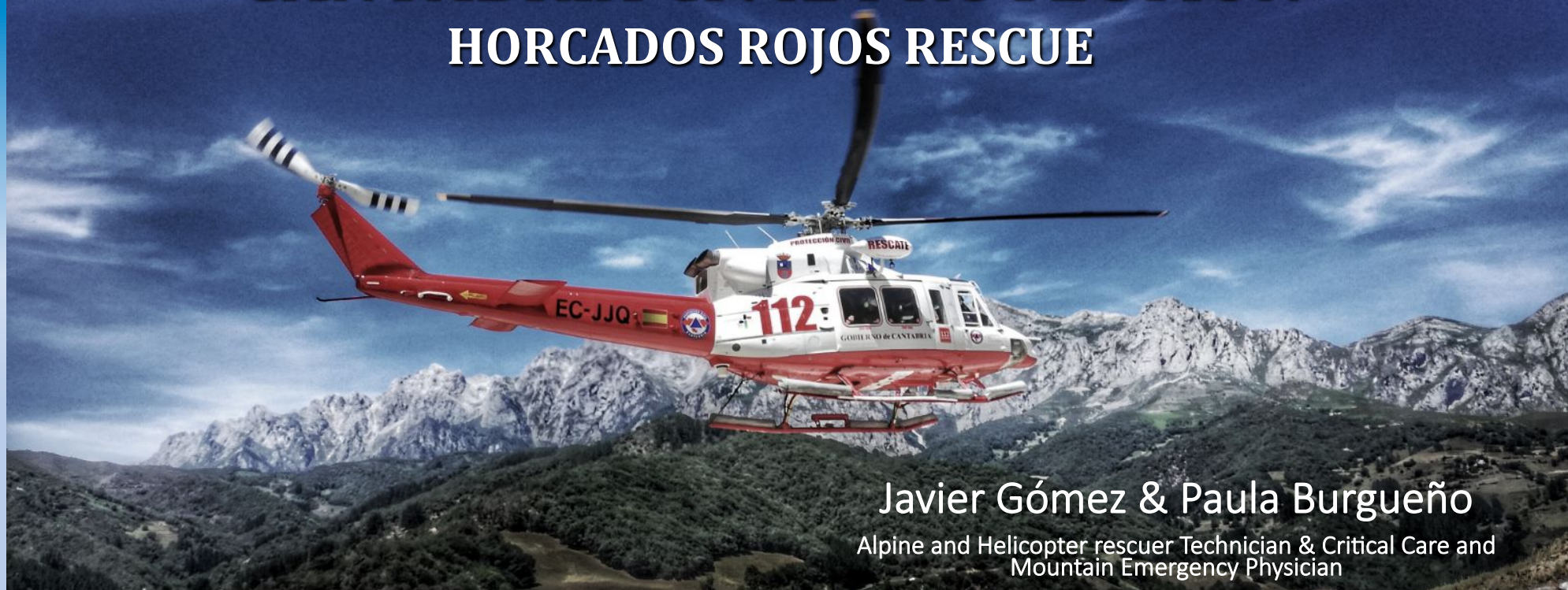


CANTABRIA CIVIL PROTECTION

HORCADOS ROJOS RESCUE



Javier Gómez & Paula Burgueño

Alpine and Helicopter rescuer Technician & Critical Care and
Mountain Emergency Physician



CANTABRIA CIVIL PROTECTION

HORCADOS ROJOS RESCUE



Javier Gómez & Paula Burgueño

Helicopter rescuer Technician & Mountain Emergency Physician

CANTABRIA CIVIL PROTECTION

- **We present our candidature as a IKAR member.**
- **Cantabria Civil Protection Helicopter: history, crew members, procedures and trainings.**
- **Where is Spain headed in this field.**
- **Horcados Rojos rescue.**

Who I am?



Javier Gómez Palomo:

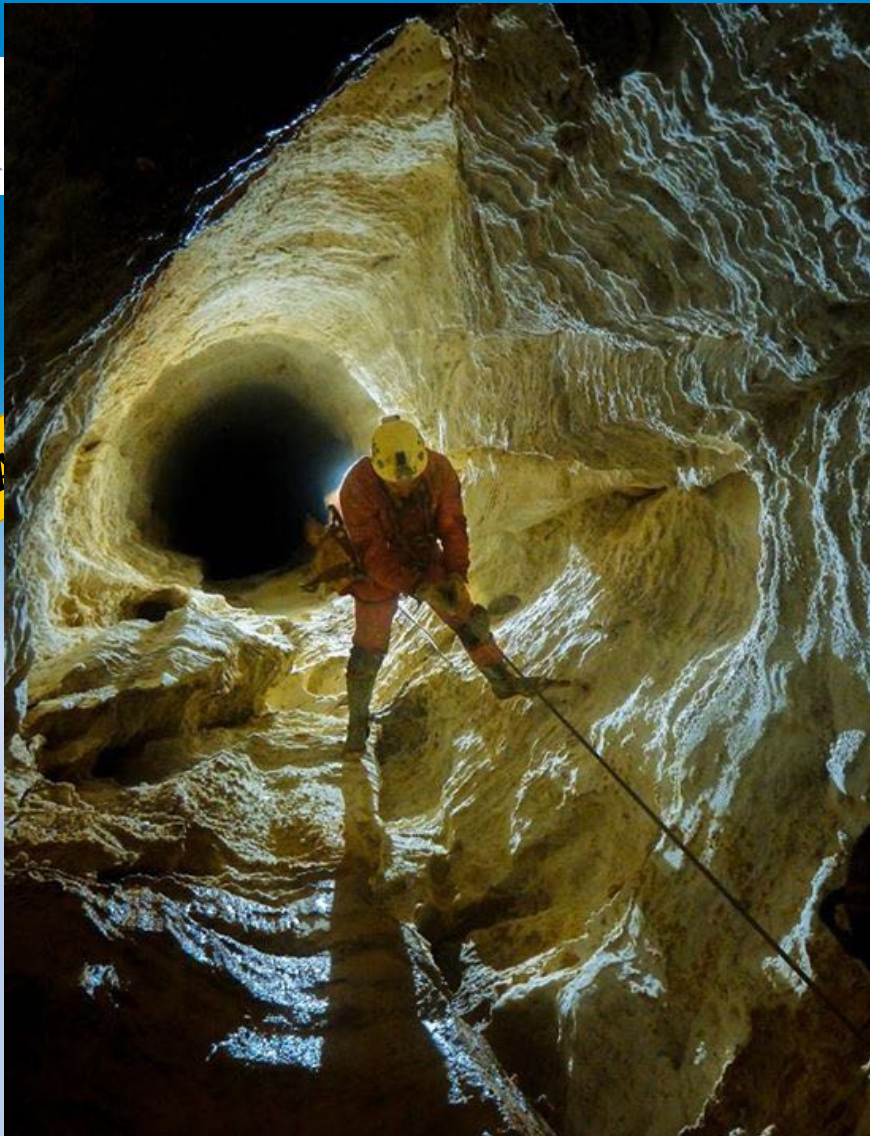
- **Helicopter rescue technician. 2010.**
- **Professional Fireman. 2003.**

- **Consultant of mountain procedures for Babcock MCS.**
- **Instructor:**
 - **Mountain rescue with helicopter.**
 - **Mountain, coast, vertical and big walls rescue.**
 - **Cave rescue, ravine and river rescue.**



GOBIERNO
de
CANTABRIA

C



km²

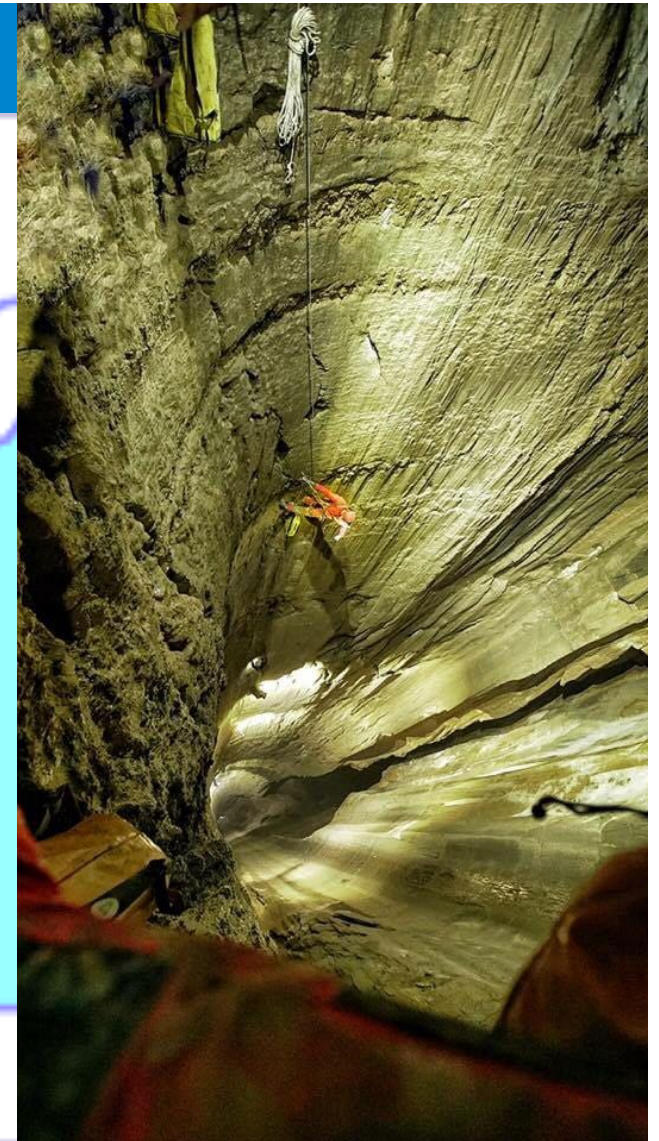
stline

idents.

ne walls.

climbing

0 caves





Cabaña Verónica (2335m)

Alto Campoo Ski area (2222m)



Team

Crew : 2 Pilots – 1 Hoist Operator – 1 Emergency Physician – 1 Helicopter rescuer.

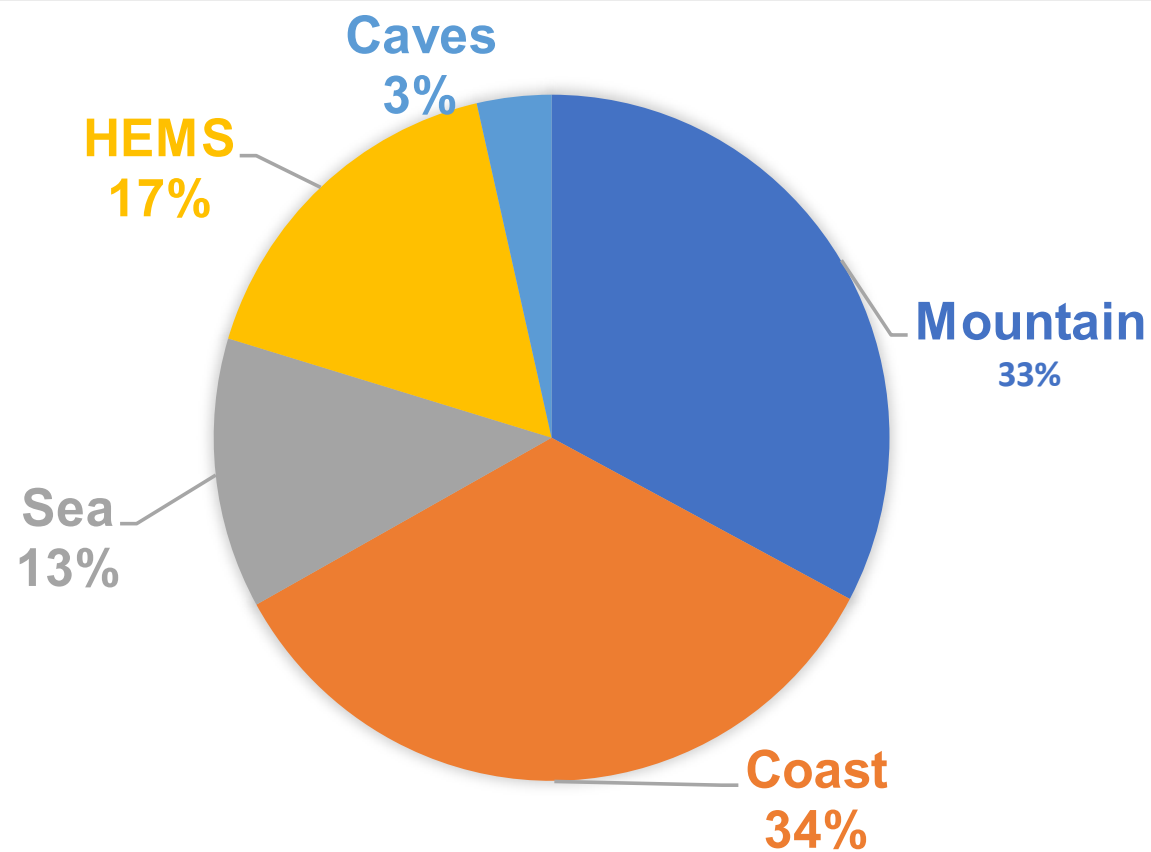
BELL 412 EP – 2 x 950 cv engines. Babcock MSC.



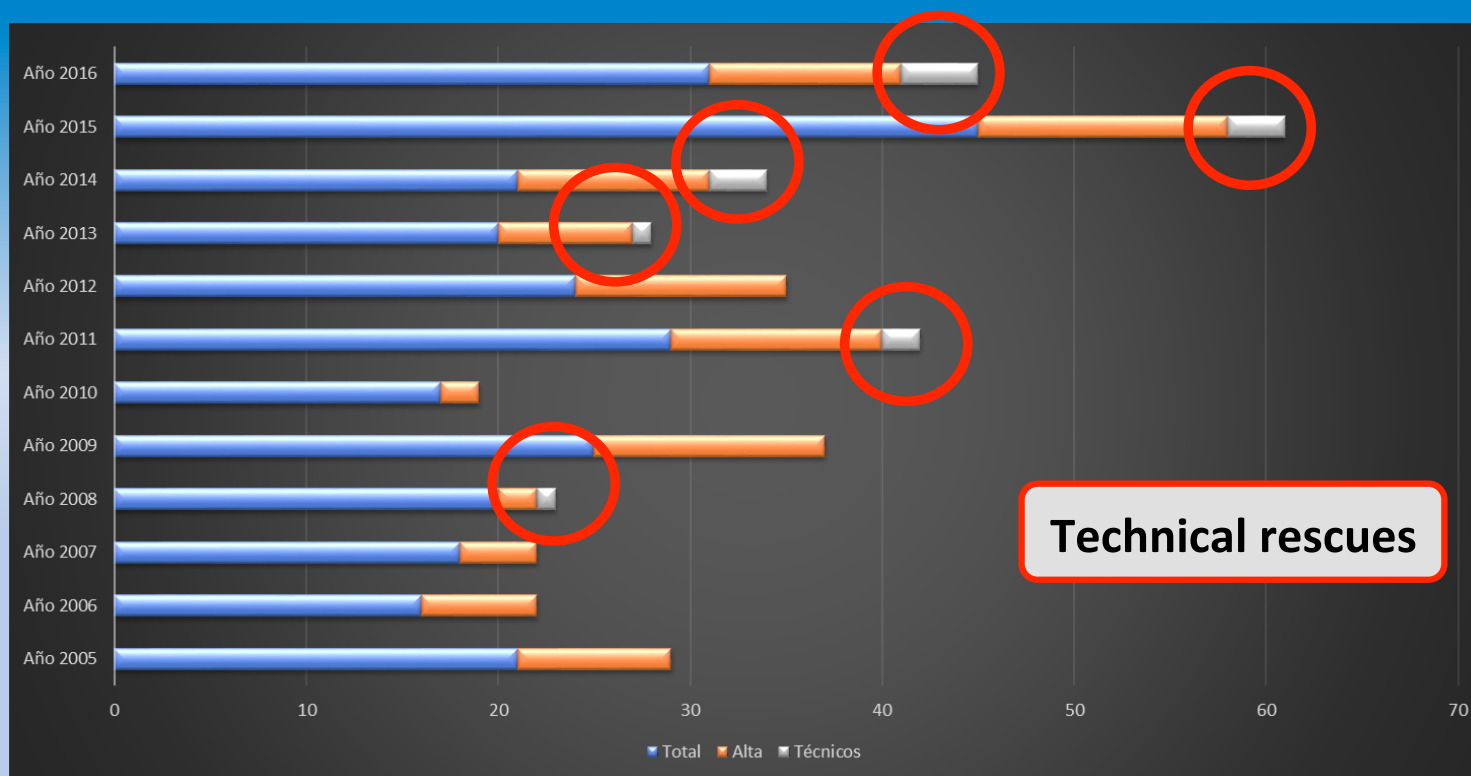
From 1988 ...



Statistics



Mountain Rescues



Why??



Active Tourism



- Big Wall Climbing (ways 150 – 500m).
- Winter alpinism.
- Vías ferratas.



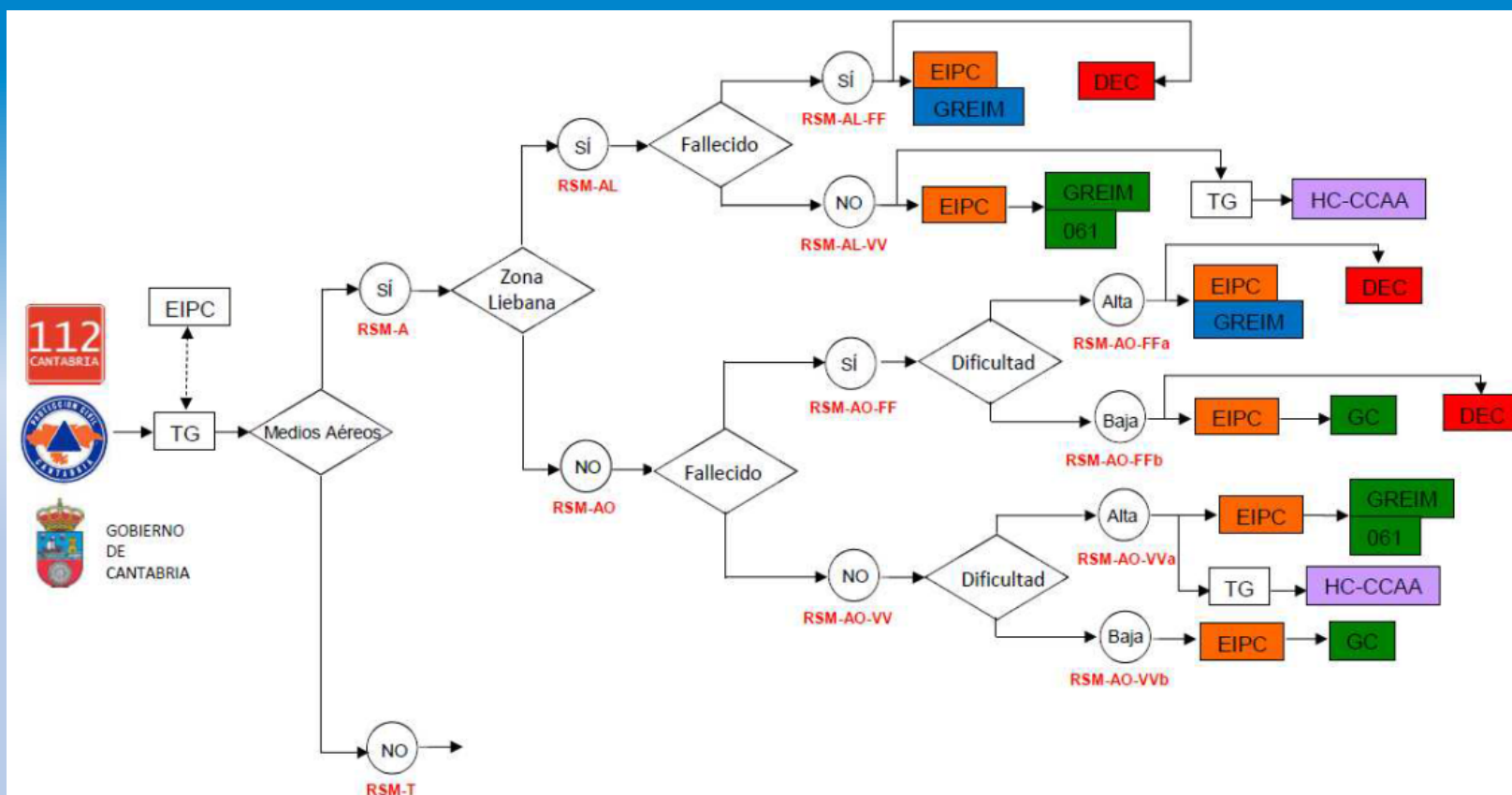
Number of difficult rescues



**Training & Experience of
the crew**

**Doing technical rescues with years ago
it had been resolved without
helicopter**

Emergency Management



Support from other teams

Firefighters

The Civil Guard
Mountain Specialized
team (GREIM)

Medical Transport
Services - 061

Rangers





Professional Profile Mountain Rescue technician



Physically fit

**Safety of the
operation**

**Self-sufficient in
differents
conditions**

Crew's Safety

**Range of
experience**

Leadership

Procedures

Hoist control





GOBIERNO
de CANTABRIA

PROCEDURES

F
R
E
Q
U
E
N
C
Y

- PREVENTION ACTIVITY.
- MEDIUM MOUNTAIN.
- TRAFFIC ACCIDENTS IN DIFFICULT ACCESS ZONES.
- HIGH MOUNTAIN.

- DEPTHS - RIVERS - FLOODING AREAS.
- VIAS FERRATAS.
- MEDIUM MOUNTAIN BIG WALLS- RAVINE – CABLE CARS
- HIGH MOUNTAIN BIG WALLS.



R
I
S
K

TRAINNING

Trainings

2 / 3 trainings per week with the helicopter

12 / 15 trainings per month.

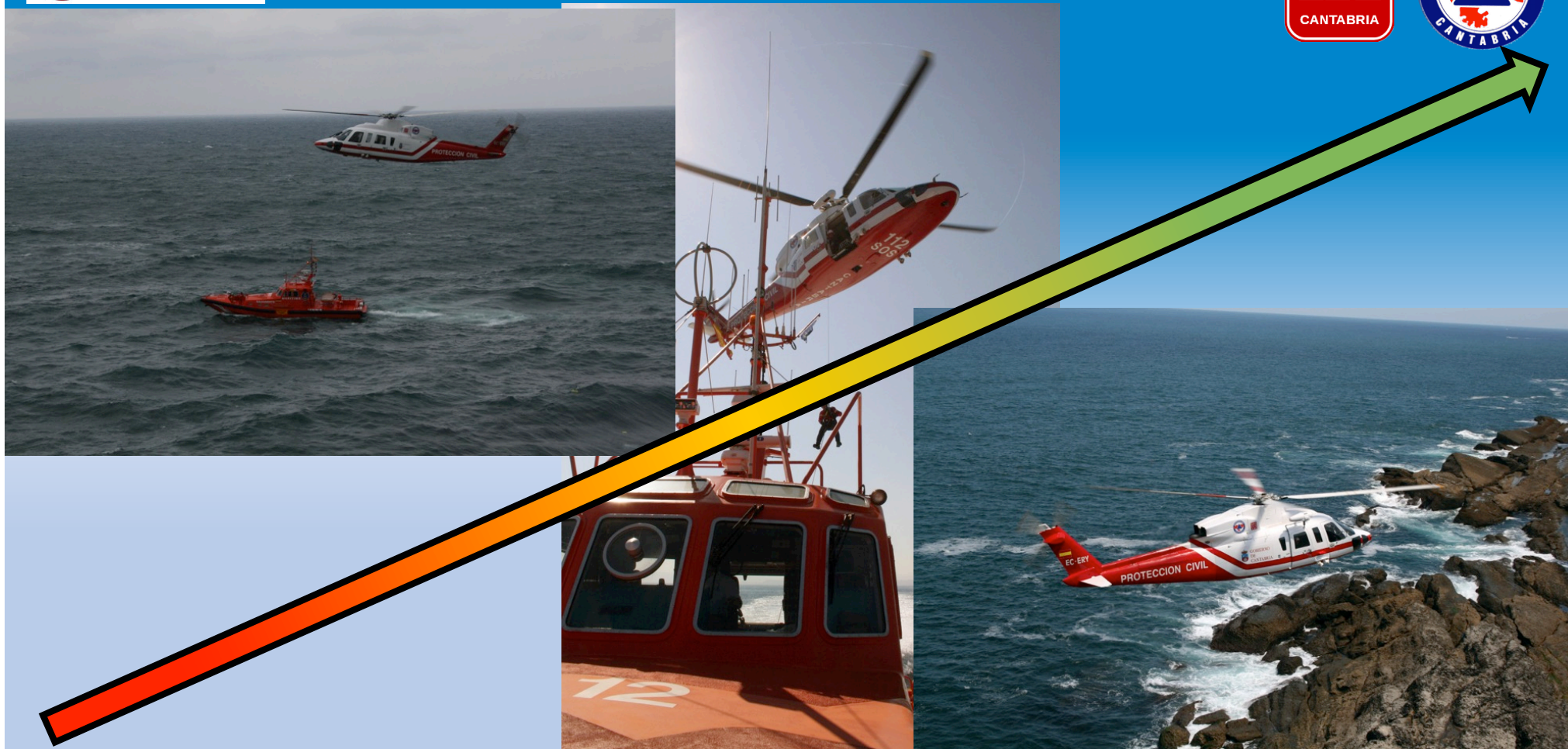


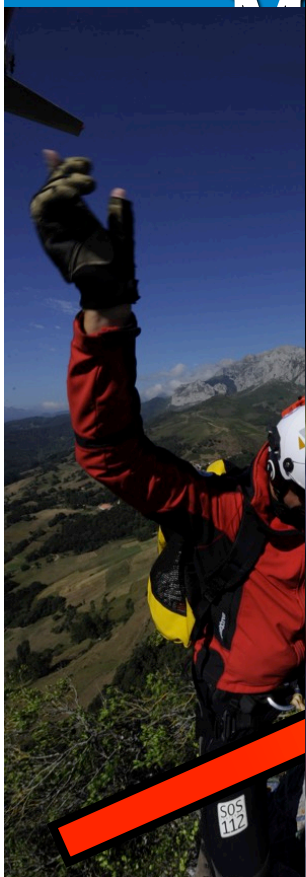
- **Technical trainings in mountain.**
- **Coastline and sea trainings during sunset and night.**



GOBIERNO
de
CANTABRIA

Procedures evolution





10/08/2017 19:54:29

Where is Spain headed in this field...



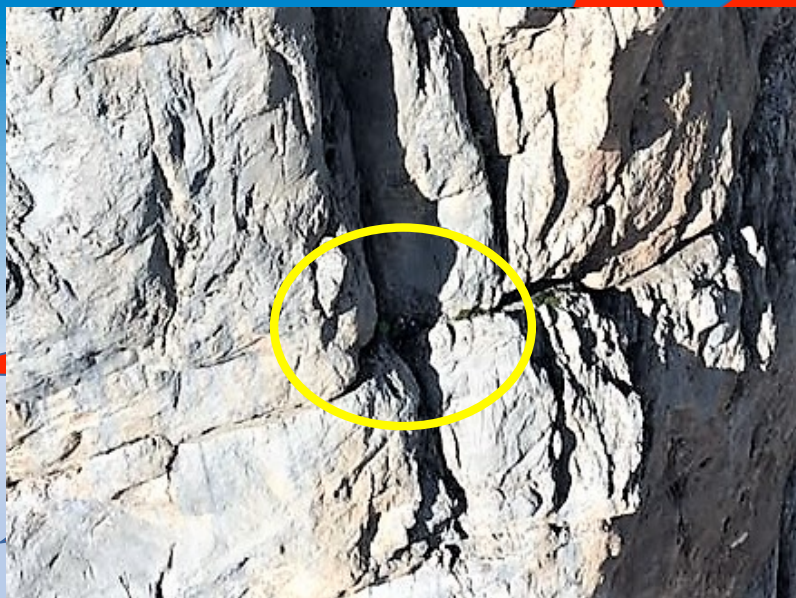
Hoist operations during the rescue:

- Double hoist descent.
- Double hoist with the stretcher ascent.
- Triple hoist with the stretcher

Mountain Rescue at night

Human External Cargo – Needs analysis:

- Mountain rescues > 2000 m.
- Big walls rescues > 2000 m.
- Cable cars rescues.
- Evacuation of vast number of persons.



Horcados Rojos 2.506m.
Via Original cara Sur
MD Inf. V+. 350m.
Abierta 27-9-58 por Landa,
Régil y Udaondo

2400m



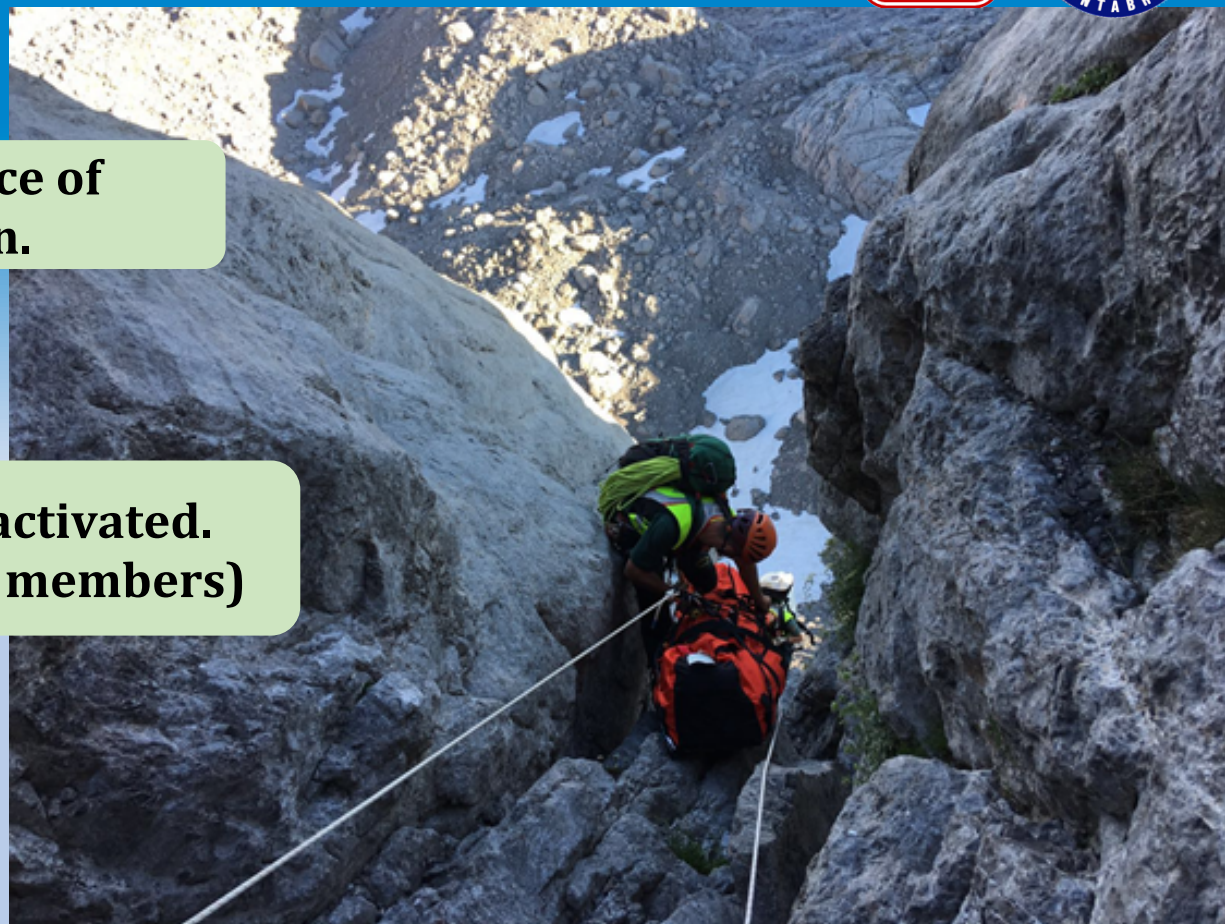
July / 2016

H 15:35

**2 climbers falled in south face of
Horcados Rojos Mountain.**



- **Civil Protection Helicopter is activated.**
- **Pre-alert is made to GREIM (2 members)**

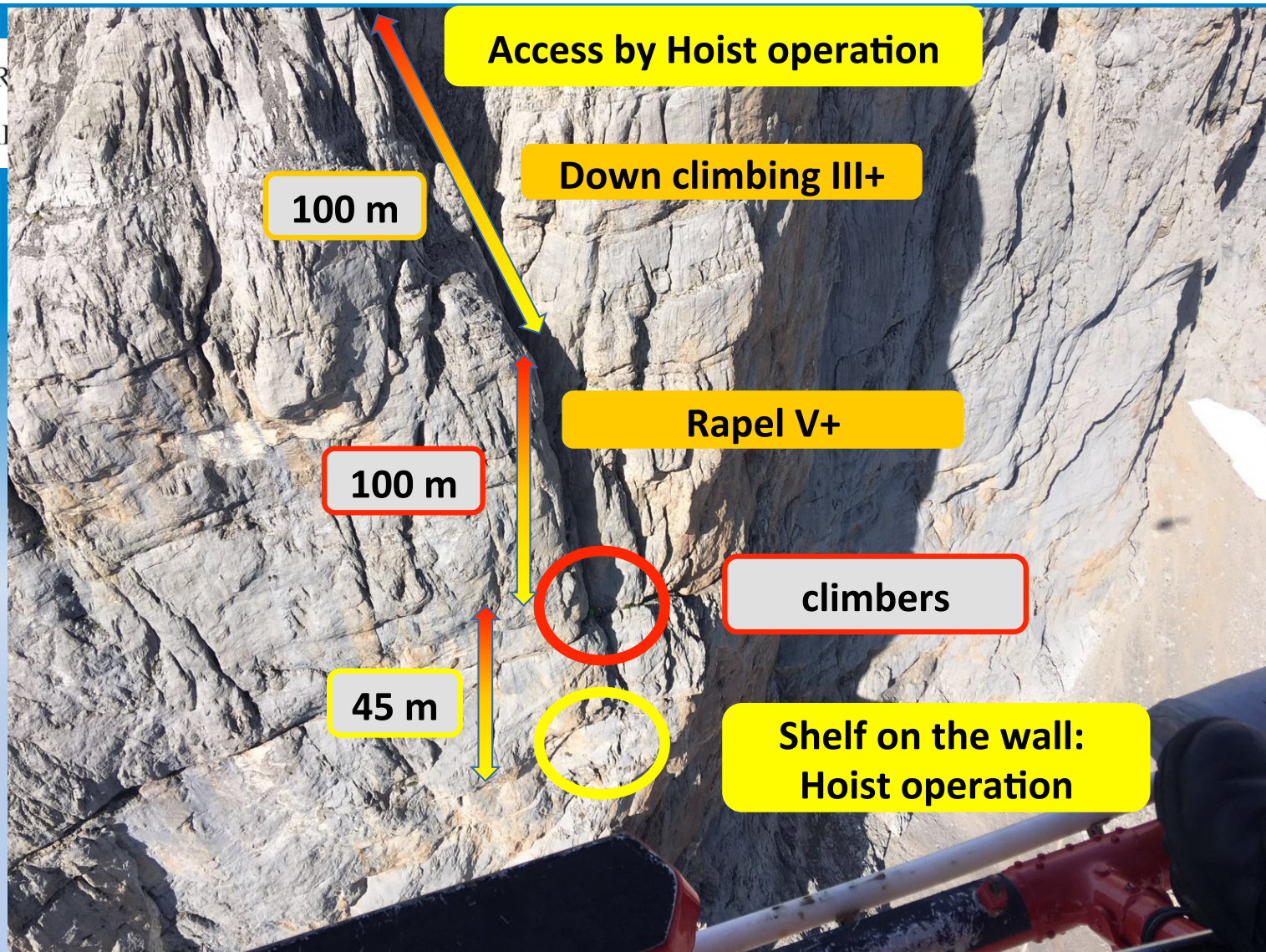


- Impossible to carry out the hoist operation in the flue where 2 climbers are located.
 - Access is gained from the top of the mountain. (rescuer + physician)
- Collaboration is requested from GREIM.
 - 2 members of GREIM reach the top of the mountain.
- All are lowered by a fixed rope 150m...
 - Reached the 2 climbers into a chimney.
 - Stabilization of the patients (1 stretcher + personal harness).
 - 45 m Descent to a shelf on the wall.
 - Hoist operation.

H 16:35

H 17:30

H 20:30



To think
about...

- Moving the stretcher into the chimney.
- We use a cargo brake to descent the casualties.
- 3 hoist operations (stretcher + physician+ rescuer with 2ºcasualtie)
- 2 members of GREIM descent by themselves the rest of the wall.

Thinking about...



New air
procedures
for big walls

To Gain Access
from above or
from below?

Cargo brake vs
Guided load
brake?

Get out/ get
into the wall
from/ to hoist?

Counterweight
vs traction ?



GOBIERNO
de
CANTABRIA



MUCHAS GRACIAS!!

gomez_javier@cantabria.s
j.chavin@hotmail.com

MÉDICO DE RESCATE



PAULA BURGUEÑO

- **MÉDICO CUIDADOS INTENSIVOS**
H. UNIVERSITARIO MARQUES DE VALDECILLA
- **MÉDICO DE RESCATE EN MONTAÑA**
- **MÉDICO DE HELITRASPORTE SANITARIO**
UIAA MOUNTAIN EMERGENCY DOCTOR
(PUIGCERDÁ)
A-HEMS AIR ZERMATT (ALPES SUIZOS)
MÉDECIN DE MONTAGNE: AVORIAZ (ALPES
FRANCESES)
PROTECCIÓN CIVIL CANTABRIA

FORMACIÓN Y ENTRENAMIENTO DEL MÉDICO



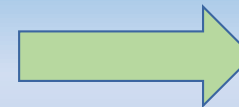
FACILITAR EL TRABAJO

- **FORMACIÓN DE RESCATADORES**
- **REALIZACIÓN DE PROTOCOLOS**
- **OLVIDARNOS DE LA MEMORIA:**
 - MOCHILAS Y **MATERIAL** ACORDE A NUESTRO SISTEMA DE TRABAJO.
 - **CHECKLIST:**
 - PEDIATRIA
 - PREPARACIÓN DE DROGAS.



MEDIO HOSTIL

- CONOCIMIENTOS DE MEDICINA MILITAR Y PREHOSPITALARIO
- FORMACIÓN EN MEDICINA DE MONTAÑA Y ENTORNOS HOSTILES
- FORMACIÓN EN HELICÓPTERO SANITARIO Y RESCATE
- ENTRENAMIENTOS SEMANALES



CURSO ARAGON
DMEM
A-HEMS

DOMINAR EN ENTORNO SEGURO

- **TÉCNICAS** SANITARIAS MÁS UTILIZADAS
- CONTROL DE LAS **PATOLOGÍAS MÁS FRECUENTES.**



TRABAJO CONTINUADO
EN URGENCIAS O
UNIDADES DE CUIDADOS
INTENSIVOS

112
CANTABRIA

TRAUMATISMO GRAVE

- Alto impacto
- Dolor abdominal
- Dificultad respiratoria
- Pérdida de conciencia

2 ó más ITEMS

LUGAR DE LA
ATENCIÓN

FÁCIL Y CÓMODO. TOMA DE TIERRA.

2 MOCHILAS GRANDES

ATENCIÓN A TRAUMATISMO GRAVE

ANALGESIA*

EVACUAR CAMILLA + COLLARÍN

DERIVACIÓN 061

COMPLEJO Y HOSTIL.

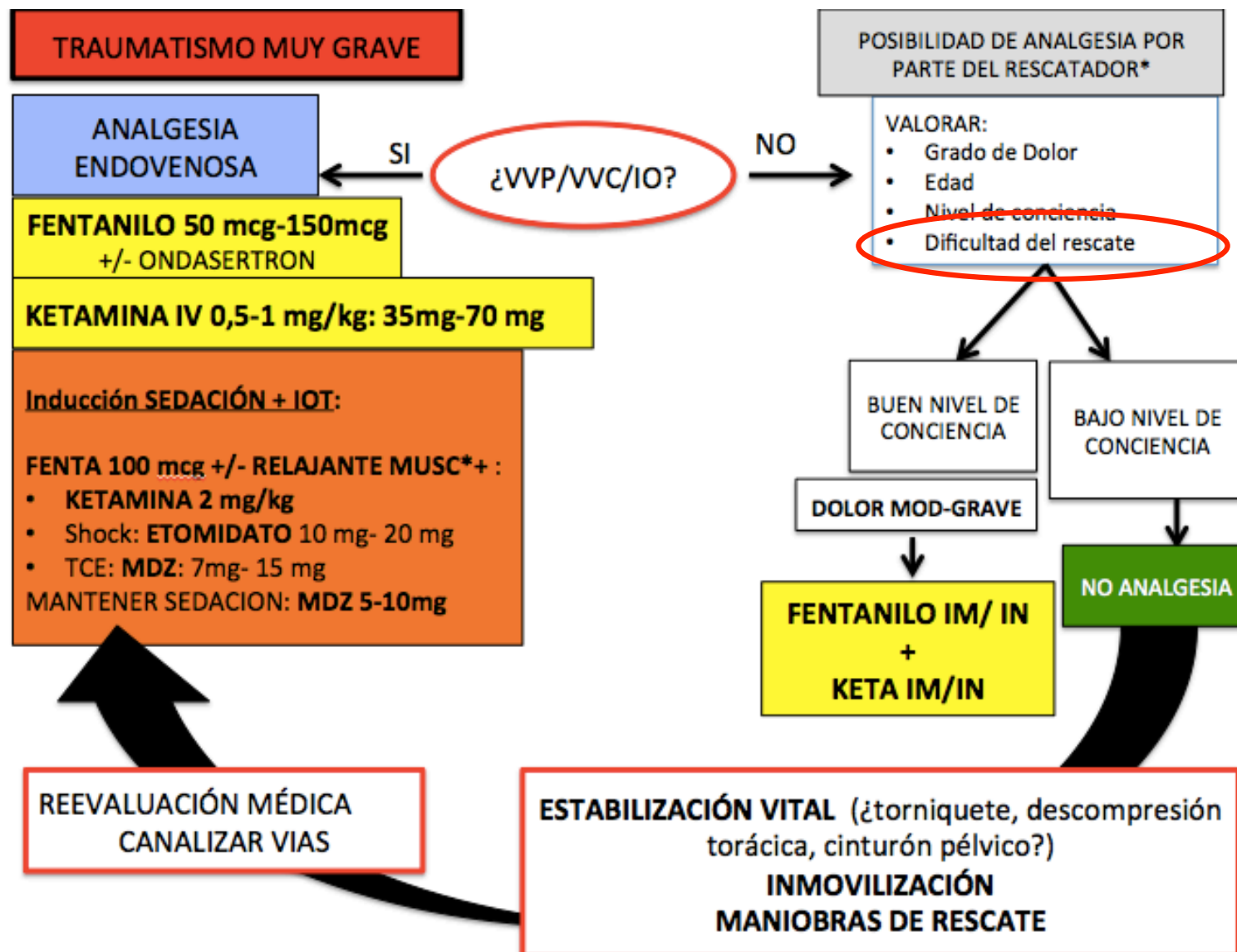
VALORACIÓN POR RESCATADOR LA
NECESIDAD DEL MÉDICO vs RIESGO

¿Material en bolsillos, mochila
pequeña?

ANALGESIA DE RESCATE *

- EVACUAR EN CAMILLA + COLLARÍN
- TOMA DE TIERRA PRÓXIMA

AMBULANCIA MEDICALIZADA.





GOBIERNO
de
CANTABRIA



MUCHAS GRACIAS.....



gomez_javier@Cantabria.es

j.chavin@Hotmail.com