



# Corpo Nazionale Soccorso Alpino e Speleologico



## RAPPELLING TECHNIQUES ON BIG WALL

S.Na.Te. Scuola Nazionale Tecnici  
Italian National Mountain Rescue School



# **C.N.S.A.S.**

**CORPO NAZIONALE SOCCORSO ALPINO E SPELEOLOGICO**  
**ITALIAN NATIONAL SERVICE FOR MOUNTAIN AND CAVE RESCUE**

**1954 – Year of foundation «Mountain Rescue Service»**  
**only in the Alps in Northern of Italy**  
**CORPO SOCCORSO ALPINO**

**1963 – The Mountain Rescue Service became «National Mountain Rescue Service»**  
**CORPO NAZIONALE SOCCORSO ALPINO**

**1990 - The CAVE Rescue Service becomes part the Mountain Rescue Service and the «Italian National Service for Mountain and Cave Rescue» is founded**  
**C.N.S.A.S.**



# **CNSAS**

## ***CORPO NAZIONALE SOCCORSO ALPINO E SPELEOLOGICO ITALIAN NATIONAL SERVICE FOR MOUNTAIN AND CAVE RESCUE***

**. 242 Local Alpine Rescue Stations**

**- 27 Cave Rescue Stations**

**- 6583 Volunteers**

**- 5762 Mountain Rescue volunteer technicians**

**- 821 Cave Rescue volunteer Technicians**

**- 225 Doctors**

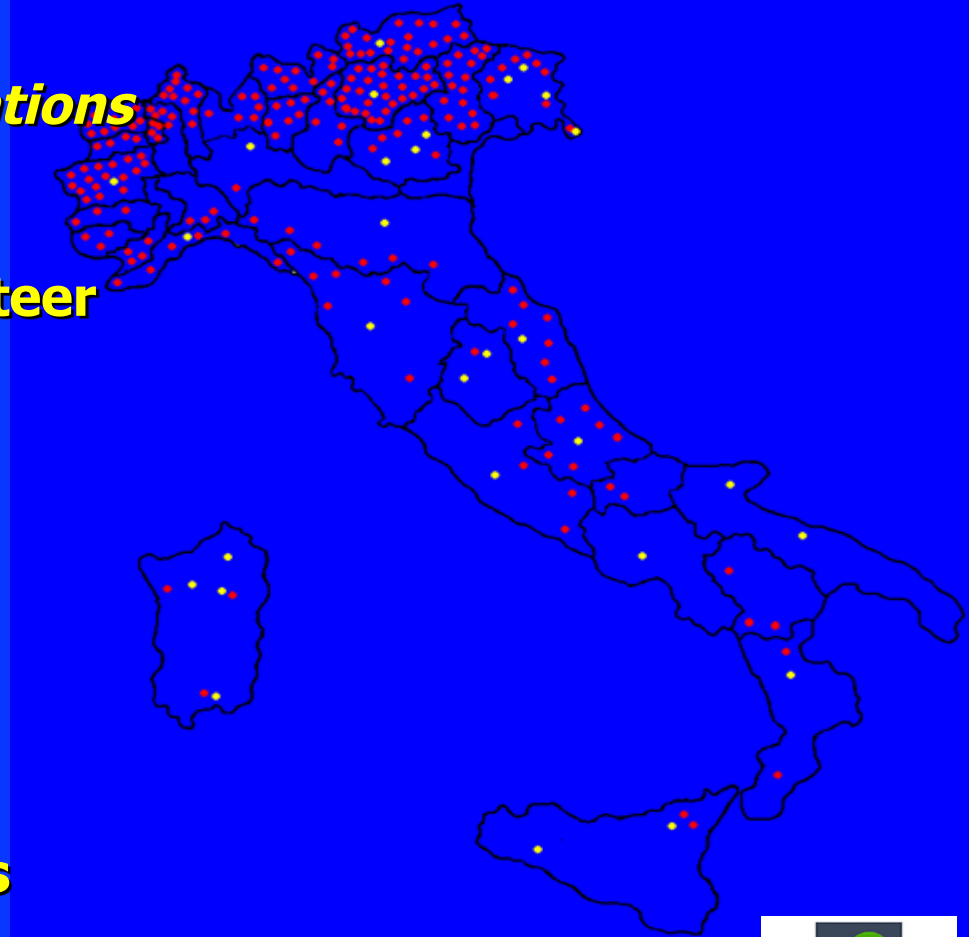
**- 171 Nurses / Paramedics**

**- 128 National Instructors**

**- 466 Women**

**- 6117 Men**

**- Average age of 44 years**



# HELICOPTER RESCUE BASES IN ITALY

27 Bases with HEMS/SAR personnel  
Helicopter with Winch and  
CNSAS Heli Rescuer Technician



22 Bases HEMS only with  
Sanitary Personnel  
Helicopters without Winch

CNSAS  
350 Helicopter Rescuers  
166 of which are operative and  
enlisted in the Italian Aviation Registry

The background image shows three mountain rescue technicians in red jackets and helmets working on a steep, rocky mountain slope. One technician is in the foreground, another is slightly behind and to the left, and a third is further up the slope on the right. They are using ropes and climbing equipment. A semi-transparent grey box is overlaid on the center of the image, containing yellow text.

AVAILABLE TECHNICAL STAFF  
Technical operators available 24 h  
Specialized technicians  
technical engineers in Charge  
Helicopter rescue technicians  
and  
Regional Alpine rescue Instructors \*  
National Alpine rescue Instructors \*



# NATIONAL TRAINING PLAN OF CNSAS

Training a technical level

Periodic training and triennals Checks at levels

Training for Personal and Team materials

All Teams are made up of technicians  
and healthcare professionals

Training for possible alternatives during the maneuver

Emergencies management



## PROCEDURE TO ADOPT ?

Rappel system according to the morphology  
and the lenght of the wall

Available gear

Tempo e soccorritori disponibili

Evalutation risk

Patient's state of health

Potential altenative that simplify the maneuver's success

Possible emergencies to adopt

## AVAILABLE GEAR AT THE LOCAL STATIONS OF RESCUE

Complete material for anchorpoints

Static and dynamic ropes 50- 100-200 meters

Brake descenders, GIGI, TUBE, TOTEM, M Cortinese

Thin line 4 mm 200 metri to lower the ropes

Radio

Headlamps





## RESCUER'S PERSONAL GEAR

PPE Full personal protection equipment as by EN European Regulation (Italian DPI)

Belay "GiGi" or "TOTEM"

Minimum 2 Self Locking "MACHARD"

Personal Radio

Personal headlamp



## FRENI IN RELAZIONE ALLA LUNGHEZZA DI CALATA E MORFOLOGIA DELLA PARETE DA SCENDERE

GLI ATTRITI SONO DETERMINANTI DEVONO ESSERE CONTROLLATI COSTANTEMENTE PER EVITARE FERME INOPPORTUNE E RECUPERI VERSO L'ALTO CHE SONO SEMPRE PROBLEMATICI NELLE GRANDI PARETI



# LIST OF BRAKES USED WITH DYNAMIC ROPES (EN 892) AND SEMISTATIC ROPES EN 1891

KONG "GiGi"

PETZL "TUBE" brake \*

KONG "TOTEM" brake



INSERIRE FRENI MECCANICI E MOTIVARE IL NON UTILIZZO

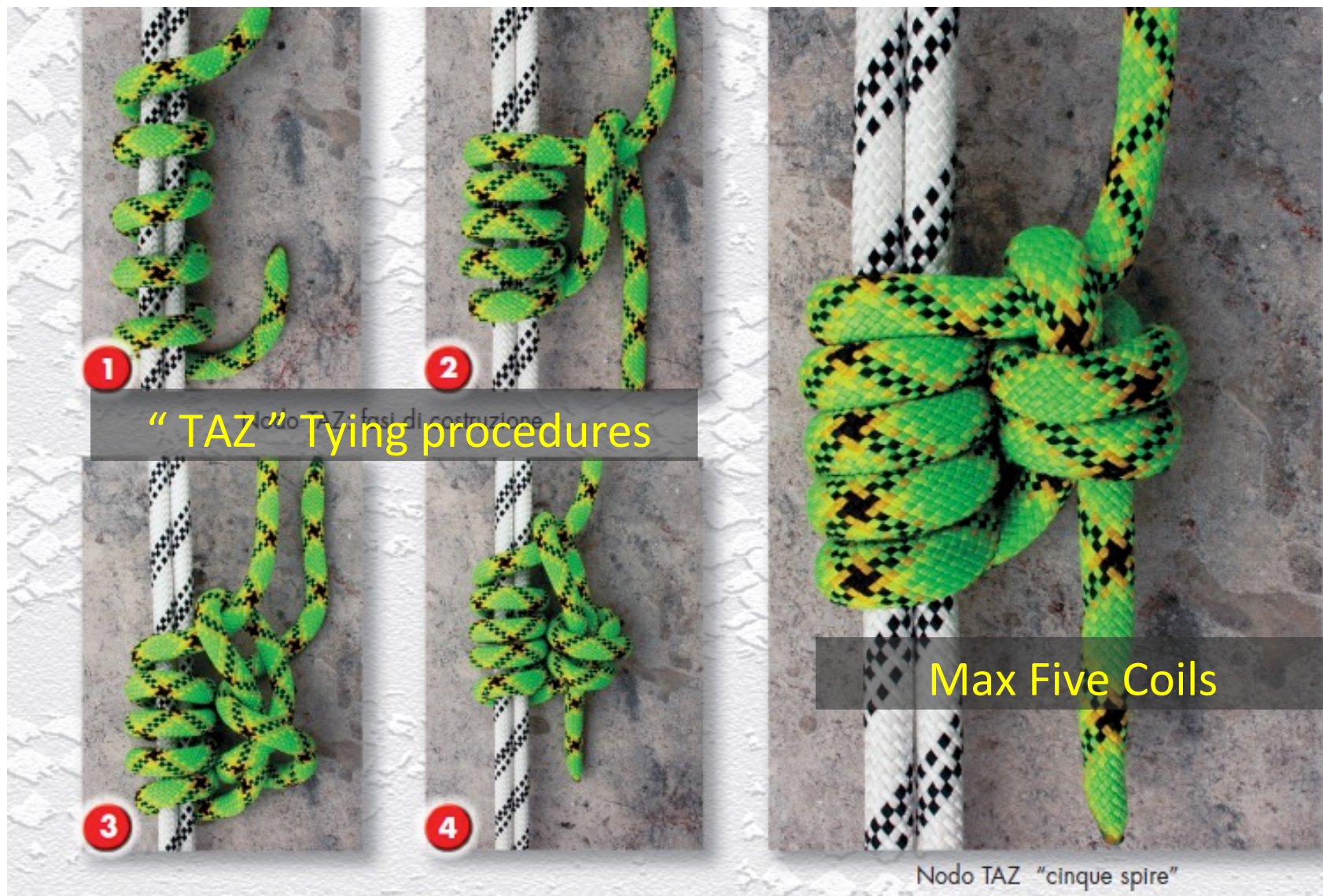








KONG TOTEM DEVICE  
Modular sliding effect  
Easy to pass joining knots on the connectors  
Lightweight and easy to fix on the anchor points



RAPPELLING WITH "TOTEM"  
ALWAYS 2 HANDS ON THE ROPES



VIDEO TOTEM CON PASSAGGIO NODO

VIDEO WITH PASSAGE OF CONNECTION  
KNOTS



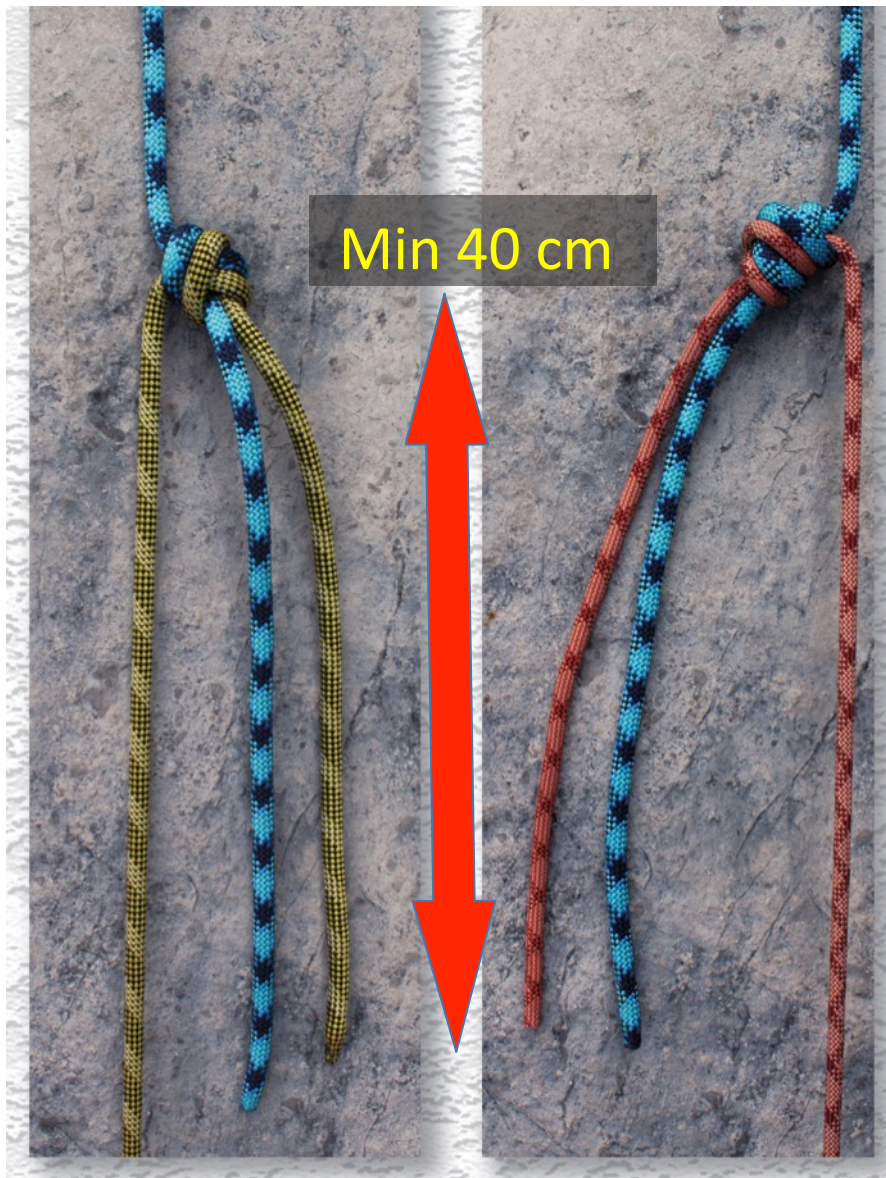


## RAPPELLING WITH "M CORTINESE" CORTINIAN M

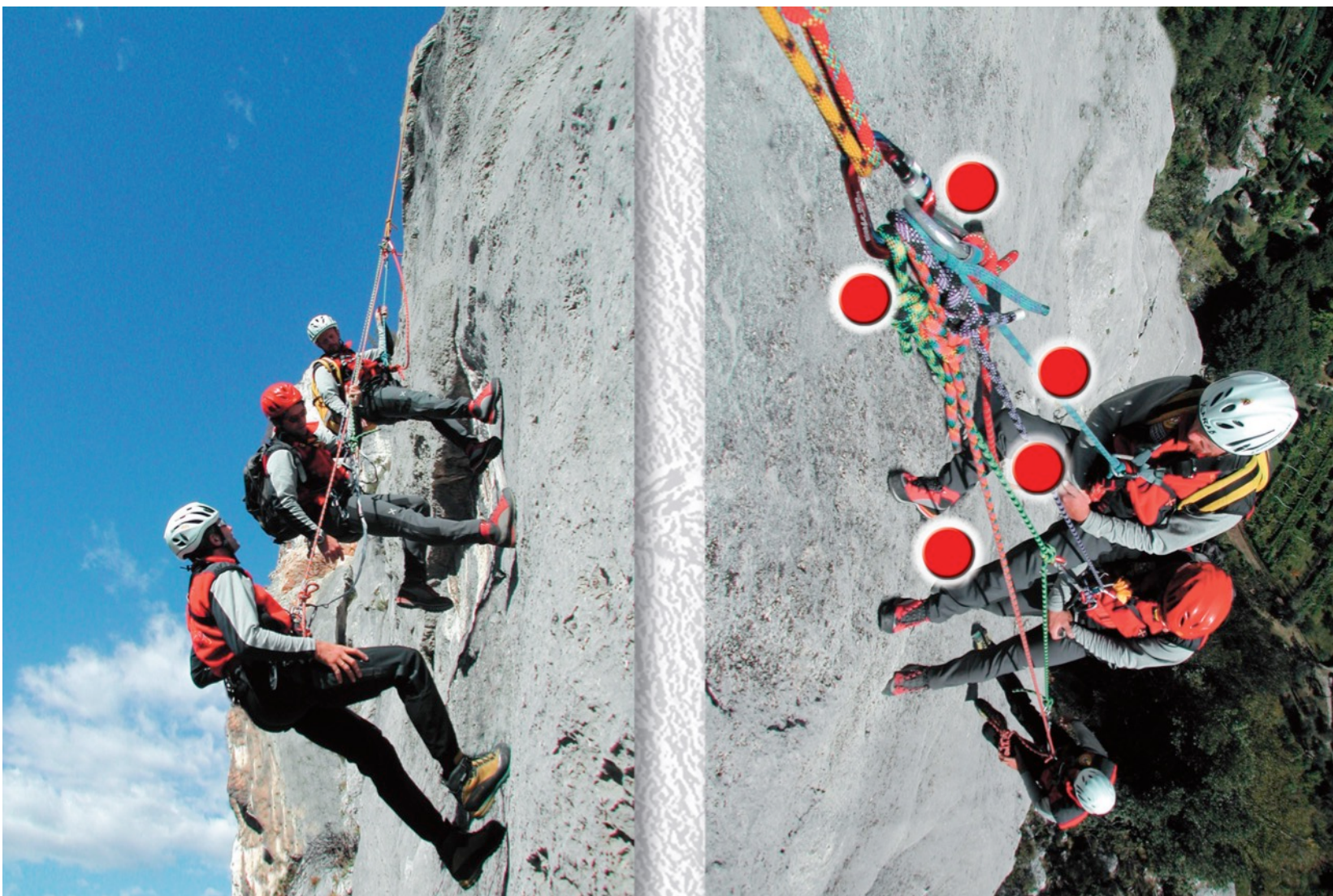


VIDEO CALATA M SU TORRE TRIESTE  
VIDEO RAPPELING WITH M SYSTEM ON THE TRIESTE TOWER CIVETTA

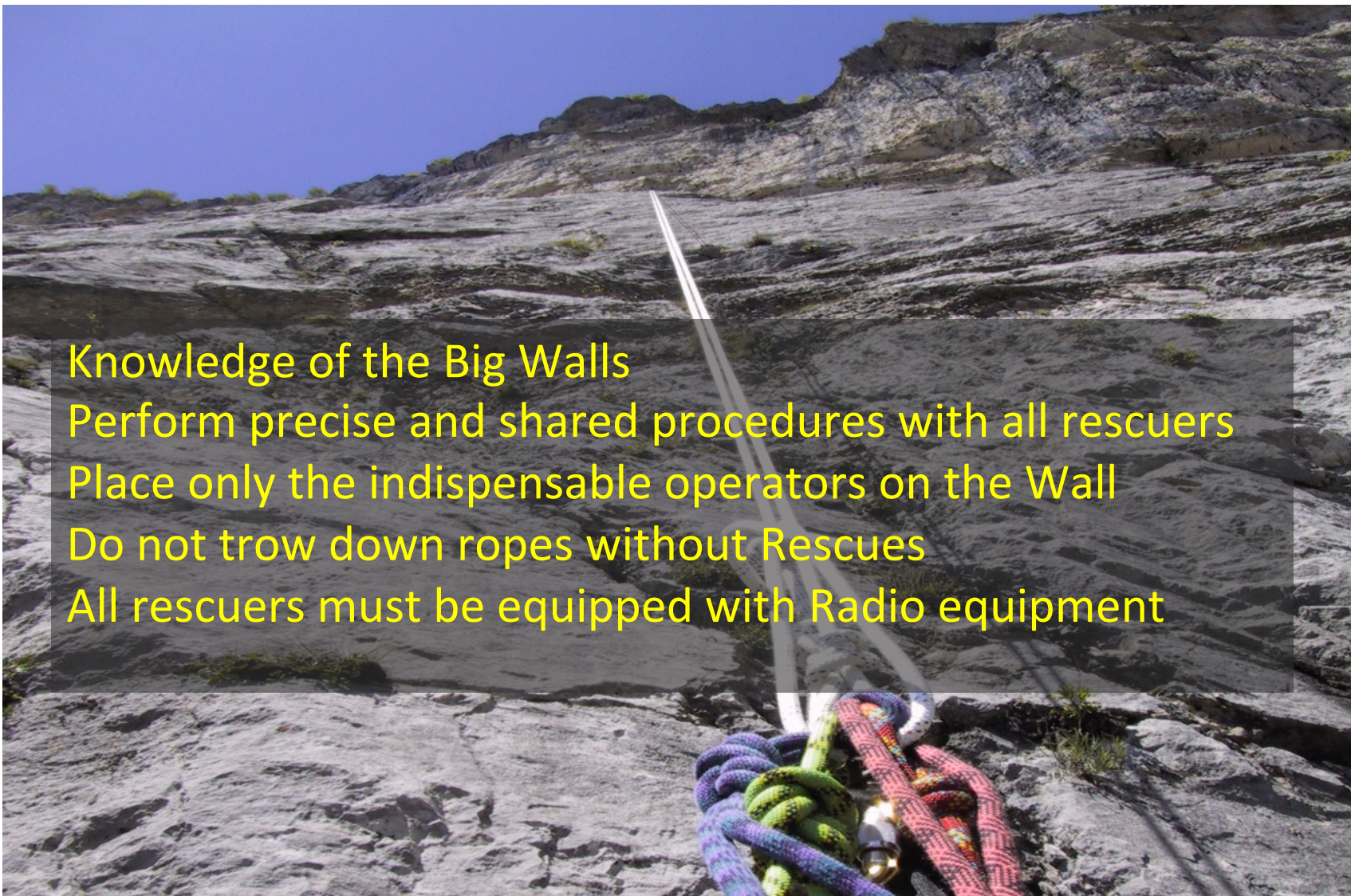




Video nodo su spigolo vivo  
Video knot on sharp edge







Knowledge of the Big Walls  
Perform precise and shared procedures with all rescuers  
Place only the indispensable operators on the Wall  
Do not throw down ropes without Rescues  
All rescuers must be equipped with Radio equipment





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THANKS FOR THE ATTENTION  
GRÀCIES PER L'ATENCIÒ

