

HELICOPTER MISSION REQUEST VADE MECUM

NOTES TO INSTRUCTORS

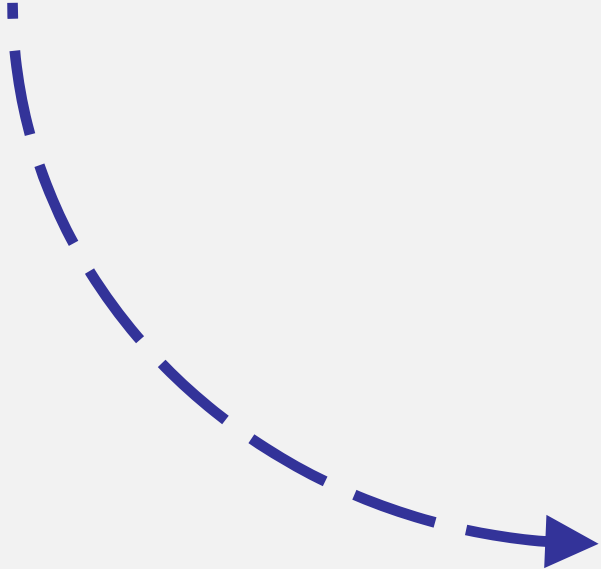
- This presentation is intended for on-site emergency personnel (police, firefighters, ambulance, etc.) requesting or expecting a helicopter in the area
- Review and change the presentation in order to fit your training needs
- Please refer to the EHEST «Helicopter Mission Request Vade Mecum» document for explanations

DISCLAIMER

The trainer and the training organisation shall verify the included information and change them accordingly in order to comply with national and local rules and Regulations.

Today's topics

MISSION REQUEST



- Typical scenario
- Request a mission
- Identifying the area
- Prepare the landing area
- Receiving the helicopter
- Helicopter on ground
- What pilots see
- The R.O.M.A. checklist

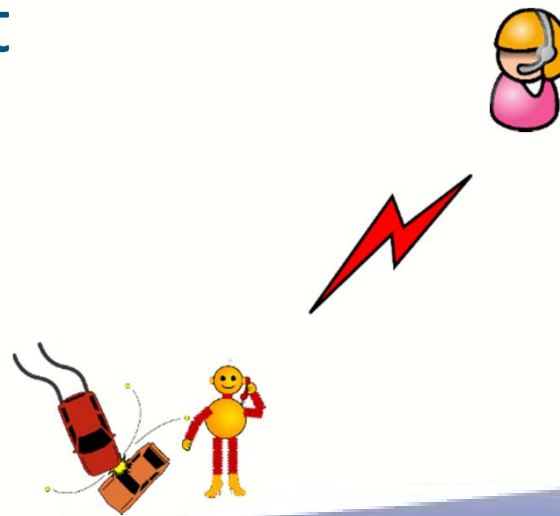
A wide-angle photograph of a snowy mountain landscape. The sky is a deep blue with wispy white clouds. In the distance, a bright light source, likely the sun, is visible between two mountain peaks. On the left, a ski lift structure and a small building are visible on a snowy slope. In the lower right, a small figure of a person is visible on the snow. A large red rectangular box is overlaid on the lower left side of the image, containing the text 'TYPICAL SCENARIO' in white capital letters.

TYPICAL SCENARIO

TYPICAL SCENARIO

TYPICAL SCENARIO

- Following an event, somebody will trigger the emergency dispatch centre
- Information exchanged at this stage is extremely important

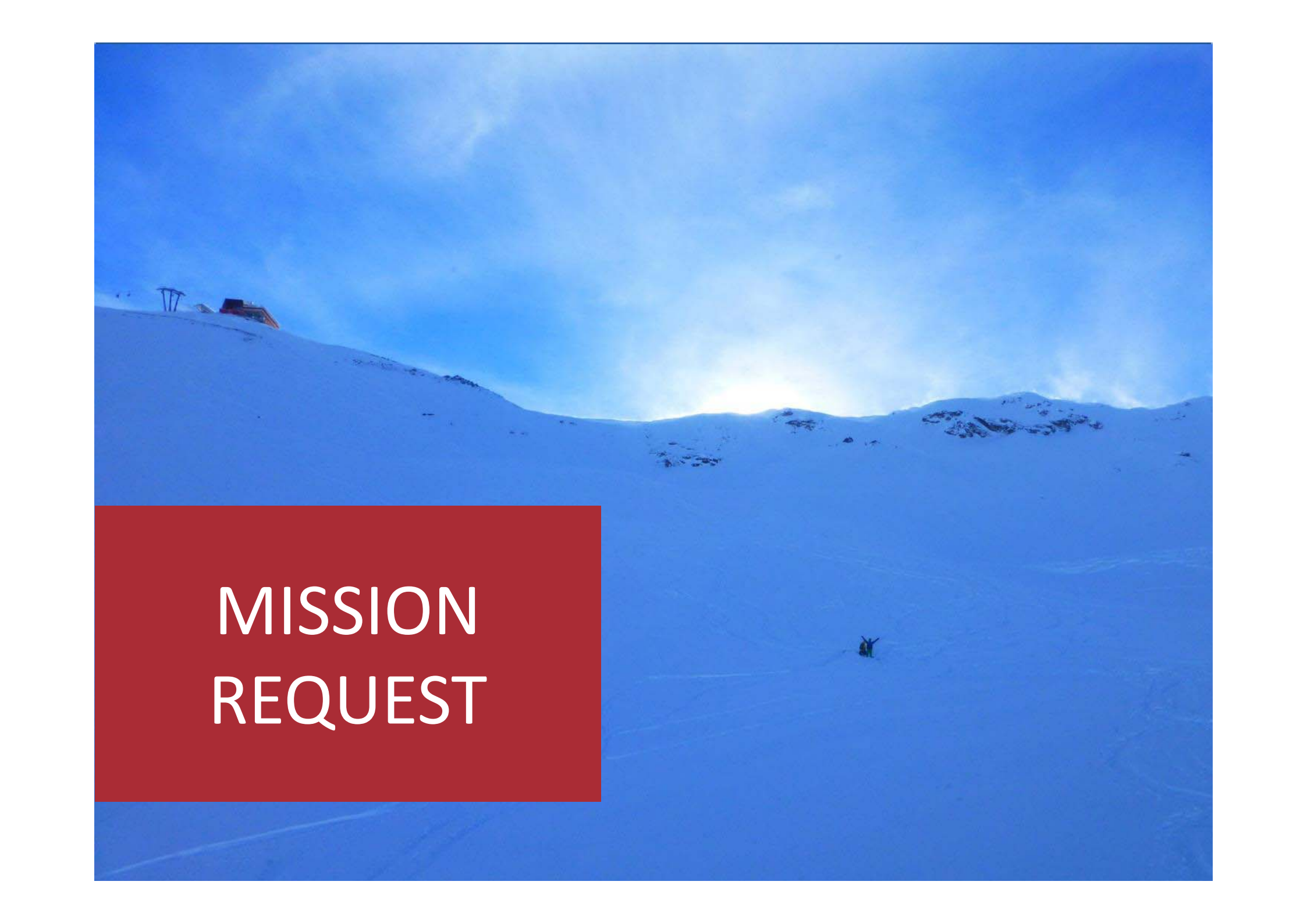


TYPICAL SCENARIO

HELICOPTER INVOLVEMENT

- If deemed appropriate, the dispatch centre will request the helicopter intervention



A wide-angle photograph of a snowy mountain landscape. In the foreground, a vast, smooth expanse of white snow stretches across the frame. In the middle ground, a small, dark figure of a person is visible, standing on the snow. In the background, a range of snow-covered mountains is visible under a bright, hazy sky. On the left side of the image, a small, dark structure, possibly a cabin or a ski lift station, is perched on a ridge. A red rectangular box is overlaid on the lower-left portion of the image, containing the text "MISSION REQUEST" in white, bold, sans-serif capital letters.

MISSION REQUEST



perspective...

MISSION REQUEST

DIFFERENT PERSPECTIVES

- Things seen from the ground and from the air can differ significantly
- Example: car accident...



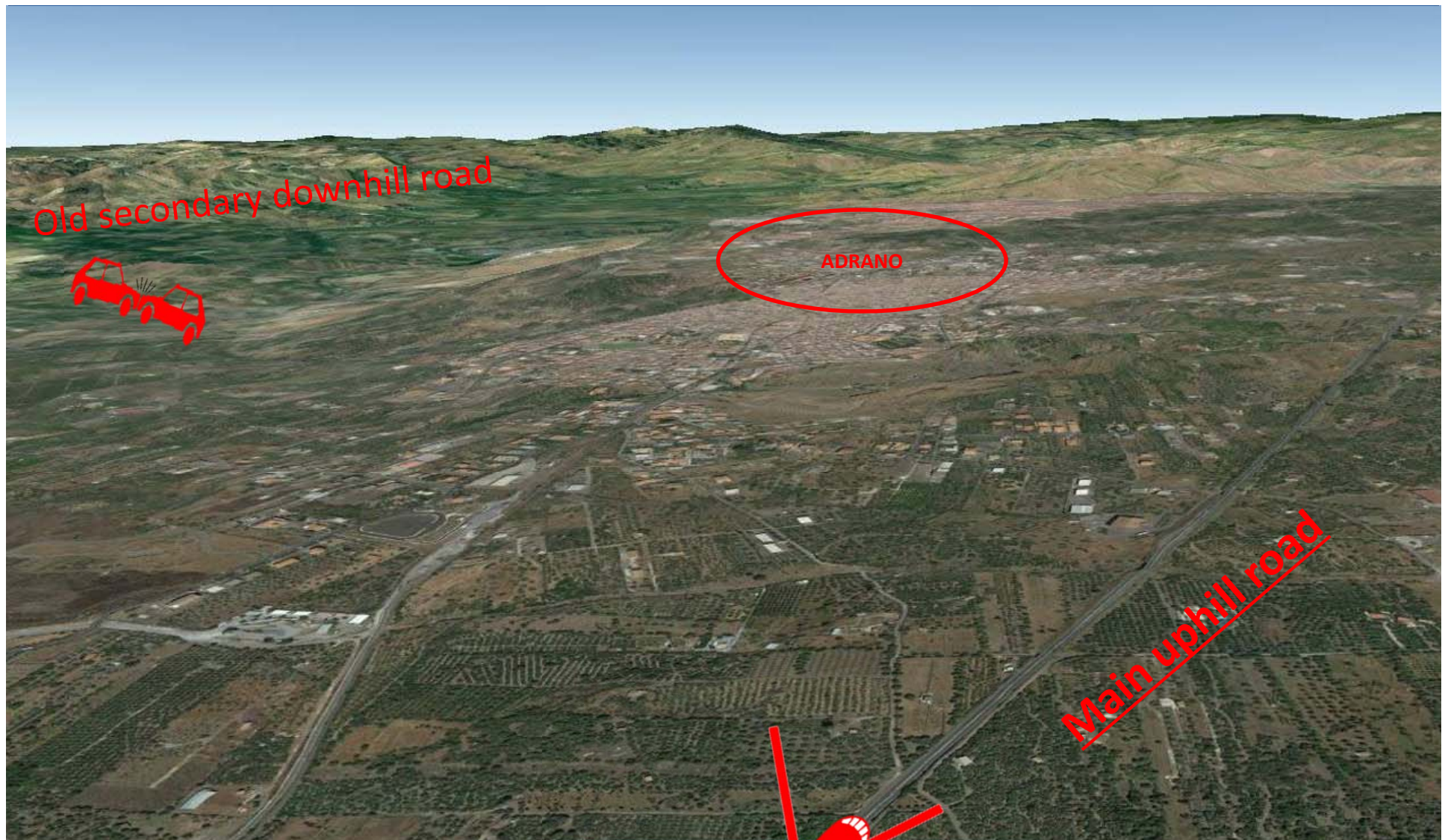
On-site personnel perspective:

«The helicopter can see us from miles.
They can't miss!»



The
pilot
overflies
the
main
road
from
Paternò
to
Adrano

Information
was not
accurate
enough

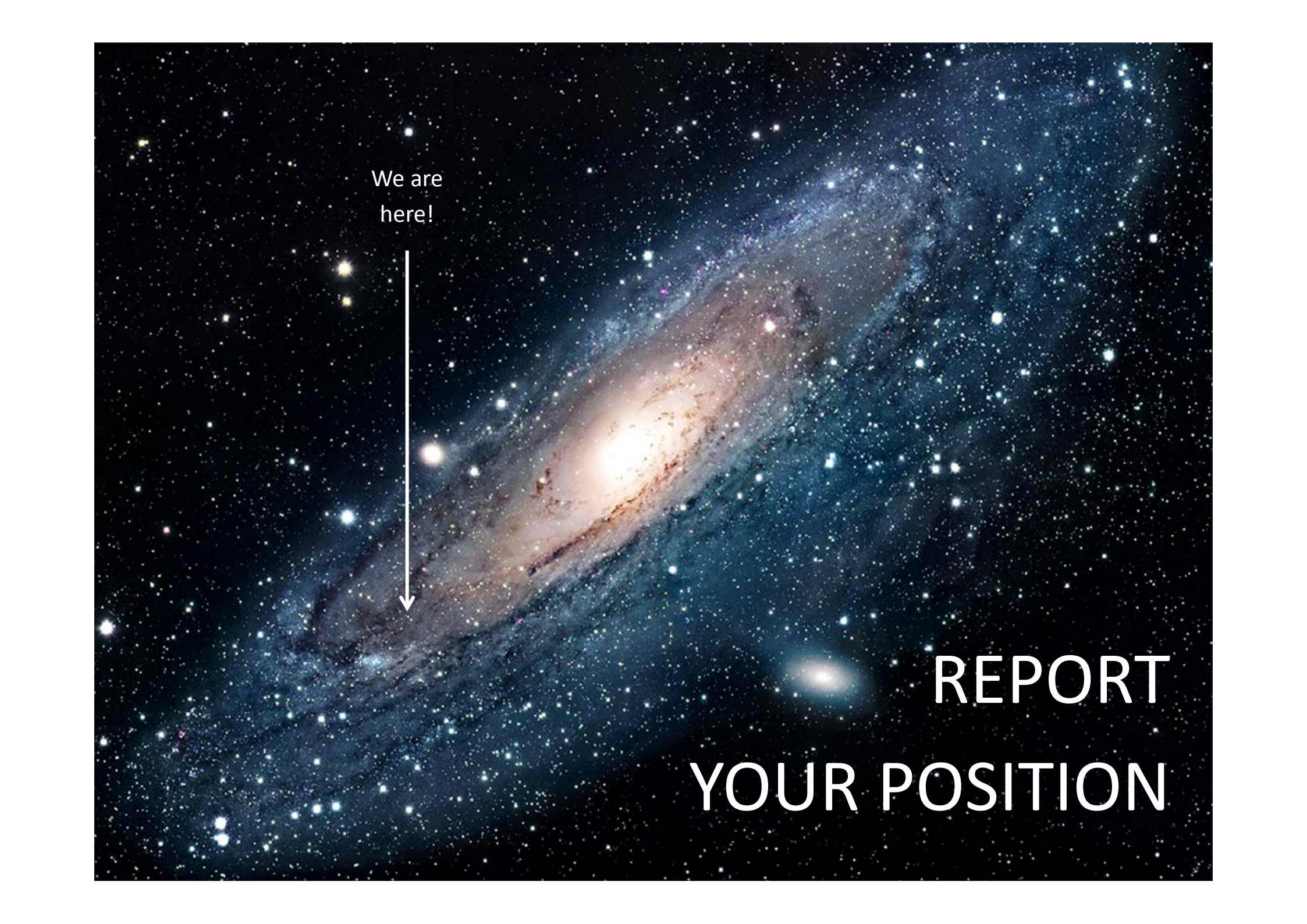


Pilot perspective



A wide-angle photograph of a snowy mountain landscape under a clear blue sky. In the upper left, a small building and a ski lift are visible on a snow-covered ridge. The sun is low on the horizon, creating a bright glow. A lone skier is visible in the distance on the right. A red rectangular box is overlaid on the lower left side of the image, containing the text 'AREA IDENTIFICATION' in white capital letters.

AREA IDENTIFICATION



We are
here!

REPORT
YOUR POSITION

AREA IDENTIFICATION

IDENTIFY AND REPORT THE PLACE BY:

- Geographical coordinates
- Social media (Google maps, Whatsapp, etc.)
- City, town
- Road/highway number and distance
- River, bridge, overpasses
- Power lines
- Horizontal, vertical landmarks

AREA IDENTIFICATION

GEOGRAPHICAL COORDINATES

- It's the most precise and easiest way for pilots
- Available in most smartphones (get acquainted!)
- KNOW HOW TO READ THEM!

AREA IDENTIFICATION

GEOGRAPHICAL COORDINATES

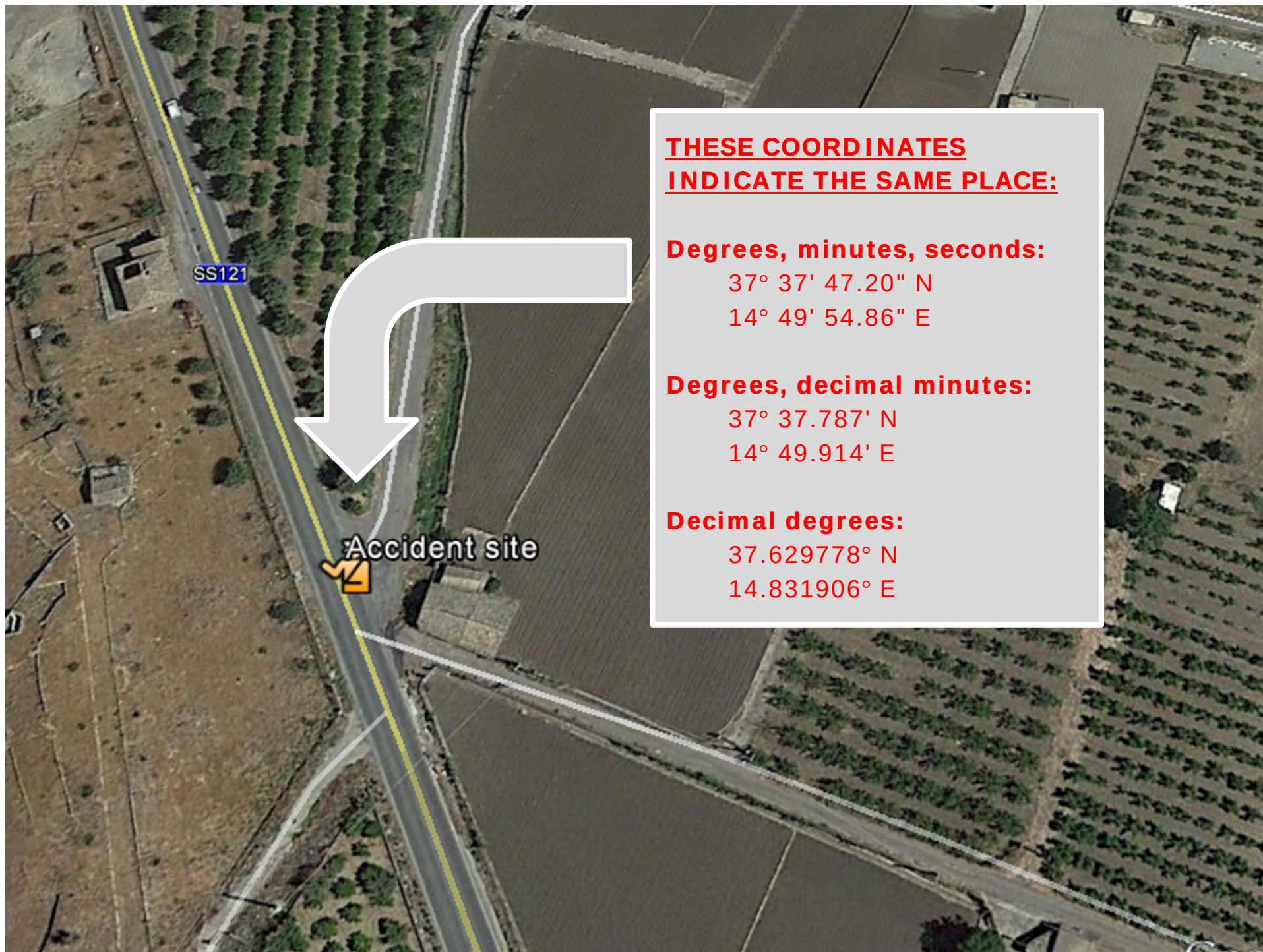
- There could be 3 ways to display the coordinates:

Degrees, minutes, seconds: $37^{\circ} 37' 47.20'' \text{ N}$

Degrees, decimal minutes: $37^{\circ} 37.787' \text{ N}$

Decimal degrees: $37.629778^{\circ} \text{ N}$

- It is important to read each single symbol ($^{\circ}$ degrees, ' minutes, " seconds) and dots/commas in the exact order



THESE COORDINATES
INDICATE THE SAME PLACE:

Degrees, minutes, seconds:

37° 37' 47.20" N

14° 49' 54.86" E

Degrees, decimal minutes:

37° 37.787' N

14° 49.914' E

Decimal degrees:

37.629778° N

14.831906° E

Accident site:

37° 37' 47.20" N 14° 49' 54.86" E

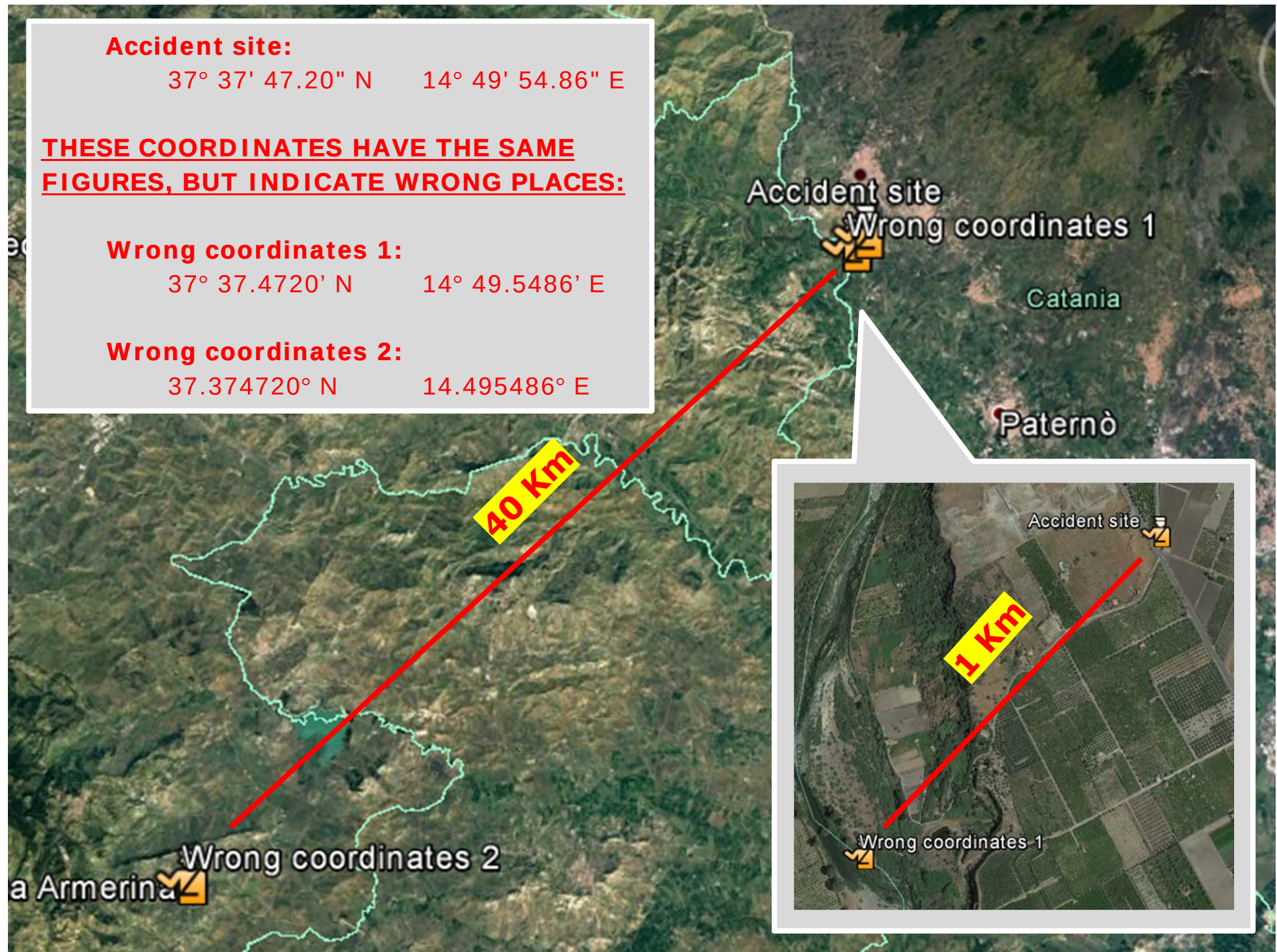
**THESE COORDINATES HAVE THE SAME
FIGURES, BUT INDICATE WRONG PLACES:**

Wrong coordinates 1:

37° 37.4720' N 14° 49.5486' E

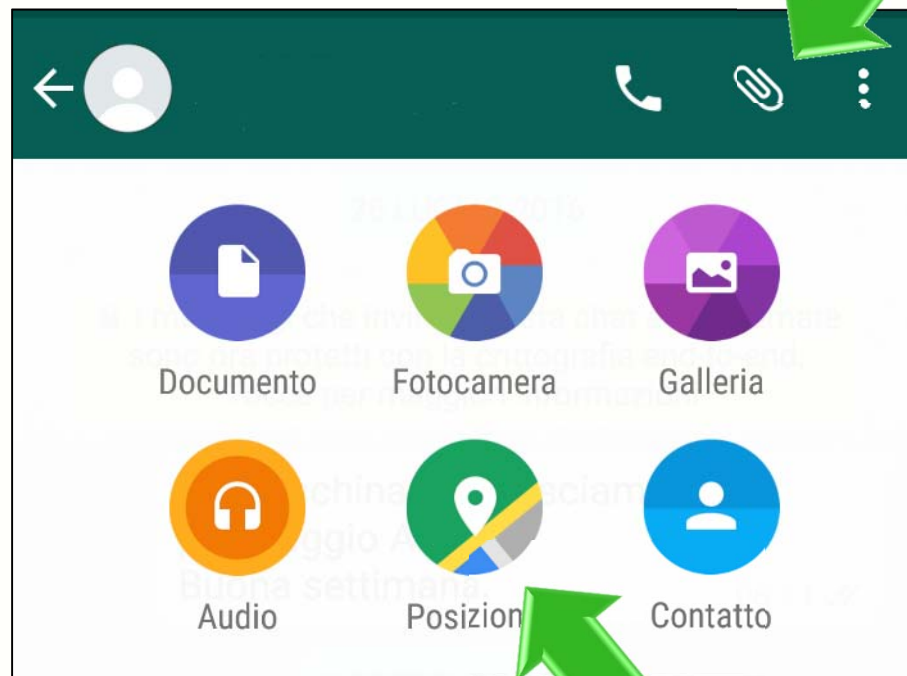
Wrong coordinates 2:

37.374720° N 14.495486° E



AREA IDENTIFICATION

Learn the social opportunities...



Some possible references...

N, E, S, W
of the city

Bridge

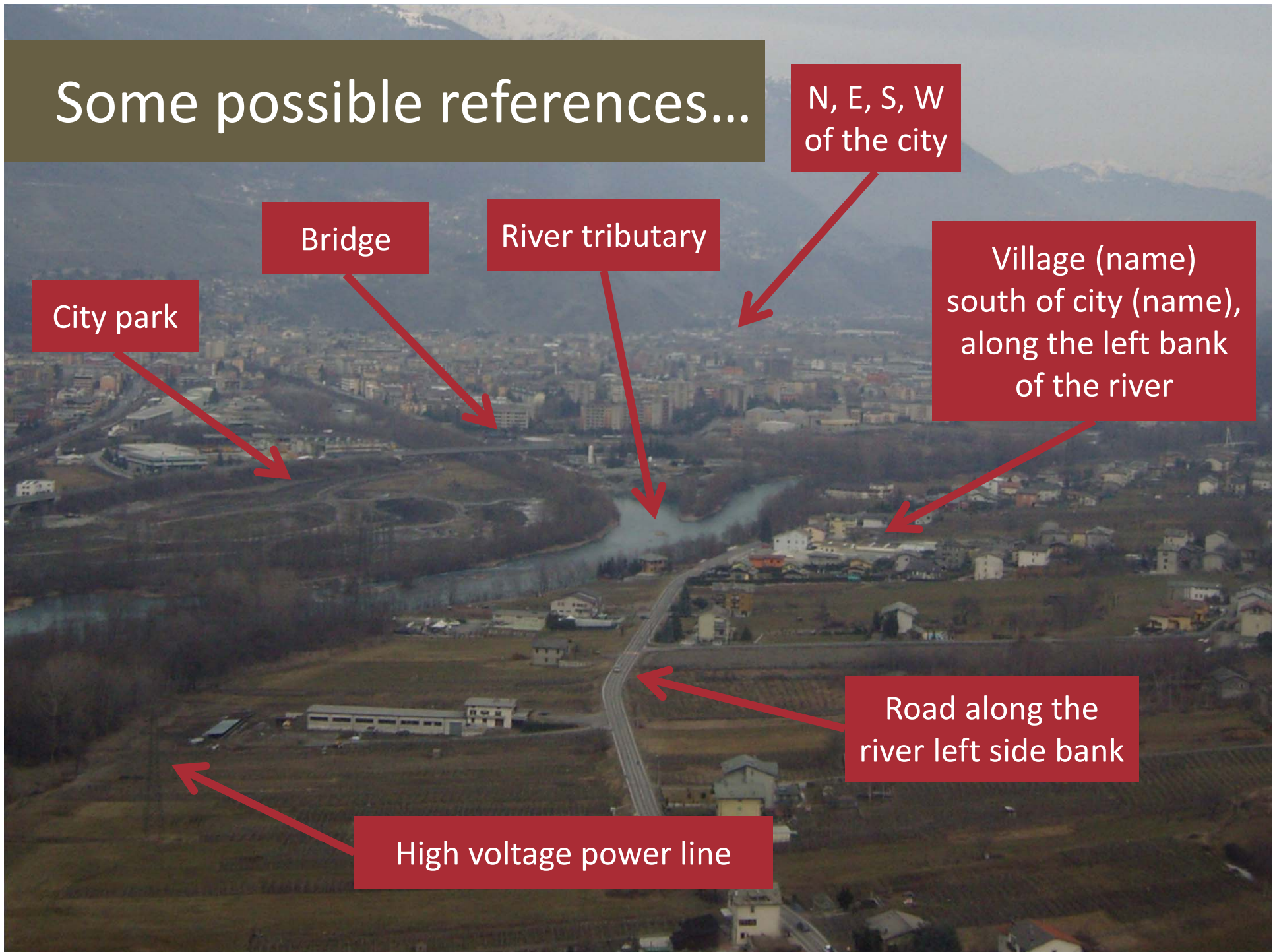
River tributary

City park

Village (name)
south of city (name),
along the left bank
of the river

Road along the
river left side bank

High voltage power line





N-S power line

E-W power line

House under
construction

Some
possible
references...

Sport's field

Three stores red house

AREA IDENTIFICATION

NEARBY ALTERNATE LANDING AREAS

- Hospital landing site, civilian heliports, military training sites, big flat fields, sport fields, empty car parking areas, etc.
- Guardian should be contacted for area availability
- Sandy, light soil area should be watered
- Fresh snow should be stepped
- Lights should be switched on well before
- Suitability: entrance width, connecting roads, etc.



AREA IDENTIFICATION

PILOTS NEED TO KNOW:

- Visibility
- Clouds (height and coverage)
- Strong wind
- Meteorological phenomena



Local clouds & visibility can be not so obvious...

ESTIMATE AND REPORT THE LOCAL VISIBILITY

- Below 1 km
- Between 1 and 3 km
- Around 5 km
- 10 or more km

AREA IDENTIFICATION

ESTIMATE AND REPORT THE HEIGHT OF THE CLOUDS

- The clouds are just above the houses, trees, constructions
- I can definitely see the clouds moving above my head
- I can see the clouds below/touching/just above the mountain/hill peaks
- The clouds are well above the area/mountains



I can see clouds just above the light pole...



I can see clouds just below the mountain peaks...



I can see clouds above mountain peaks...

AREA IDENTIFICATION

ESTIMATE AND REPORT THE CLOUD COVERAGE

- I cannot see the sky
- I can barely see the sky
- There are several holes where I can see the sky
- The sky can be seen quite well



I cannot see the sky...



I can barely see the sky...



I can see most of the sky...



AREA IDENTIFICATION

REPORT ANY METEOROLOGICAL PHENOMENA

- Rain, shower rain, hail, snow
- Tornado, waterspout
- Lightning



AREA IDENTIFICATION

**REPORT IF YOU OBSERVE
STRONG OR GUSTING
WIND**

A gust of wind can
push the helicopter
away from the
landing site

(Treasure Island – Fiji
23 Dec 2015)



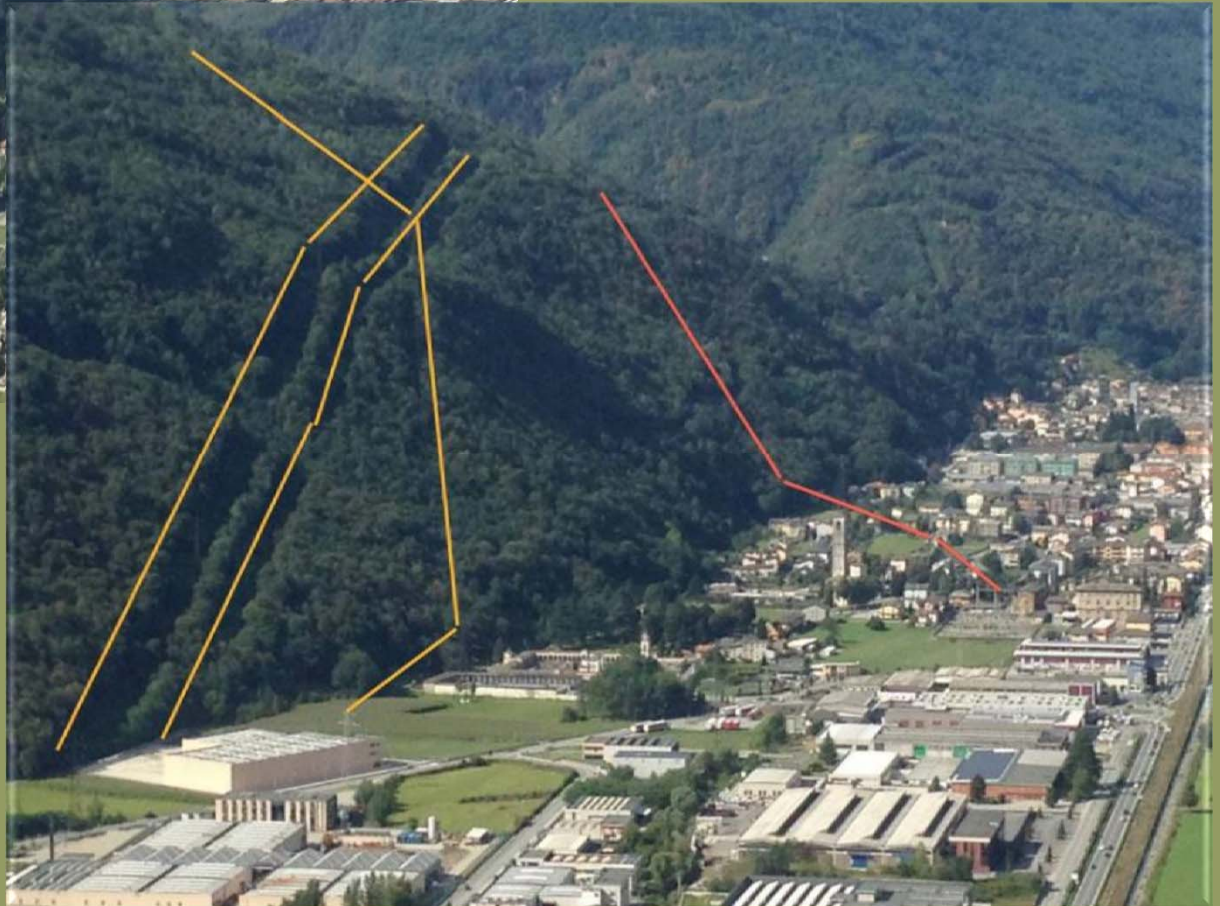
AREA IDENTIFICATION

REPORT LANDING SITE CONDITIONS & OBSTACLES

- Power lines and major obstacles
- Any dangerous condition (fires, flammable substances, etc.)

Power lines can
be invisible!...

...report them!



A wide-angle photograph of a snowy mountain landscape under a clear blue sky. In the upper left, a small orange building and a ski lift are visible on a snow-covered ridge. The sun is low on the horizon, creating a bright glow. A lone figure is visible in the distance on the snowfield. A red rectangular box is overlaid on the lower left side of the image, containing white text.

PREPARE THE
LANDING AREA

AREA PREPARATION

WHEN PREPARING THE SITE, PAY ATTENTION TO ALL POTENTIAL OBSTACLES

- A flat, obstacle free, 25 x 25 meters' open area needed (sometimes 50 x 50 meters)
- Power lines
- No loose objects
- Protruding objects < 50 cm
- Persons
- Properties

PERSONNEL...

keep them away: rotor downwash can rise dangerous objects





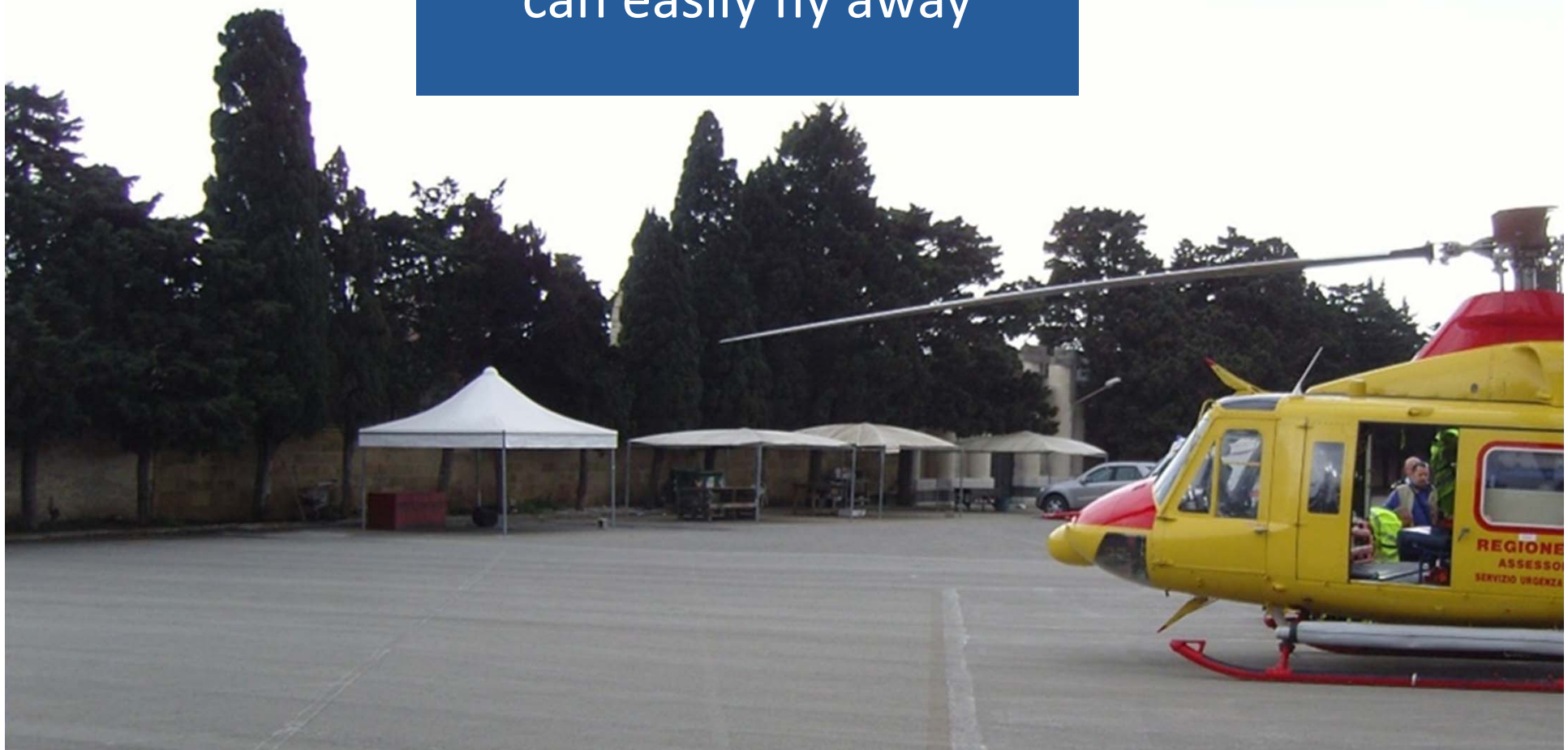
STOP THE TRAFFIC
in both directions

Keep vehicles and
motorbikes at least
100 m away



AREA PREPARATION

Tents or tarpaulins
can easily fly away





Ward off pets, cattle,
wild animals and birds

A wide-angle photograph of a snowy mountain landscape. In the foreground, a vast, smooth expanse of white snow stretches across the frame. In the middle ground, a small, dark figure of a person is visible, standing on the snow. In the background, a range of snow-covered mountains is visible under a clear blue sky. A small, dark structure, possibly a cabin or shelter, is perched on a ridge in the distance. A red rectangular box is overlaid on the left side of the image, containing white text.

RECEIVING THE HELICOPTER

RECEIVING THE HELICOPTER

MAKE YOURSELF VISIBLE

Report any fire in the area
Smoke can be seen well far away

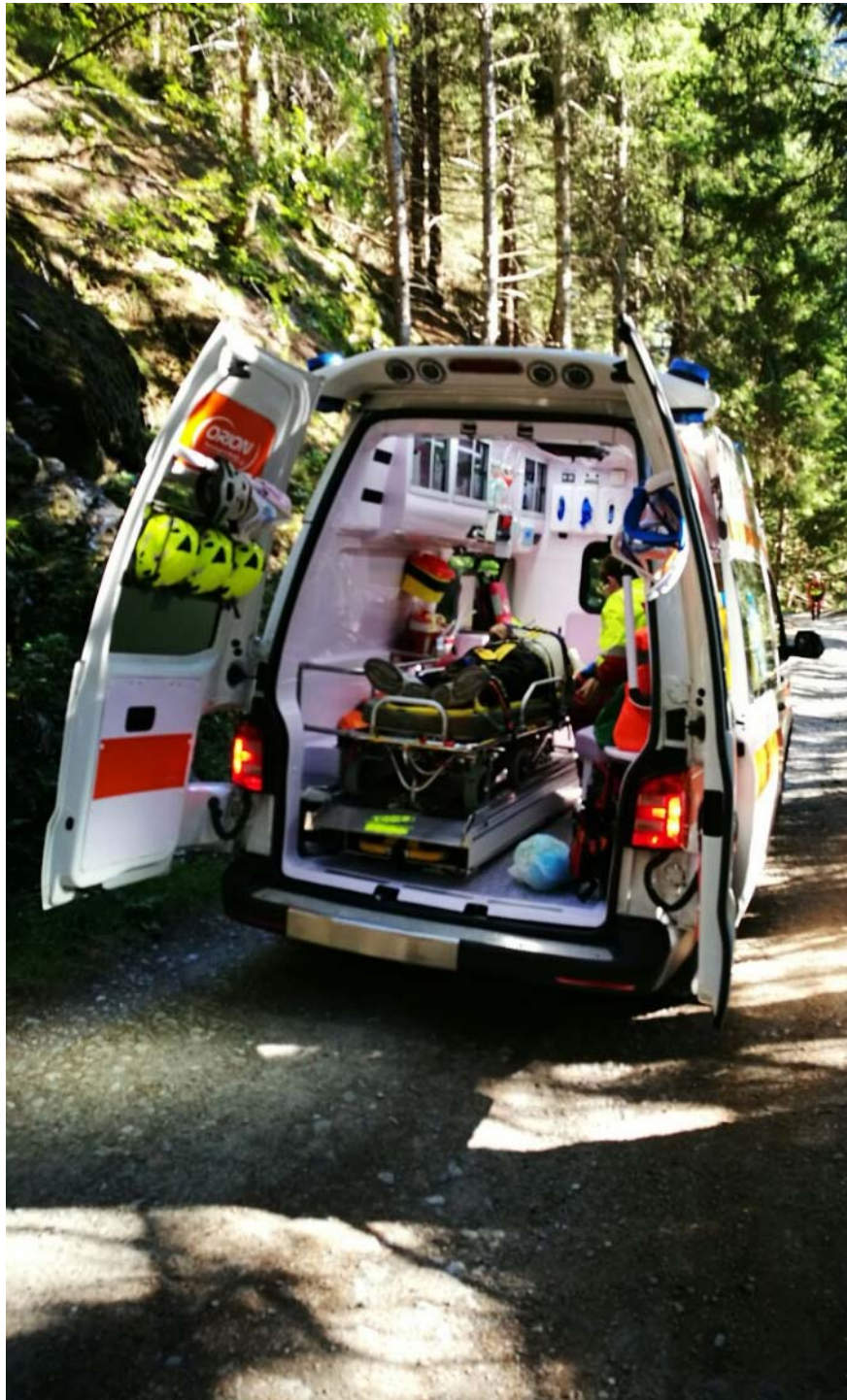


Use handhold flares (preferable)





Projectile
pyrotechnics
flares
(try to avoid)



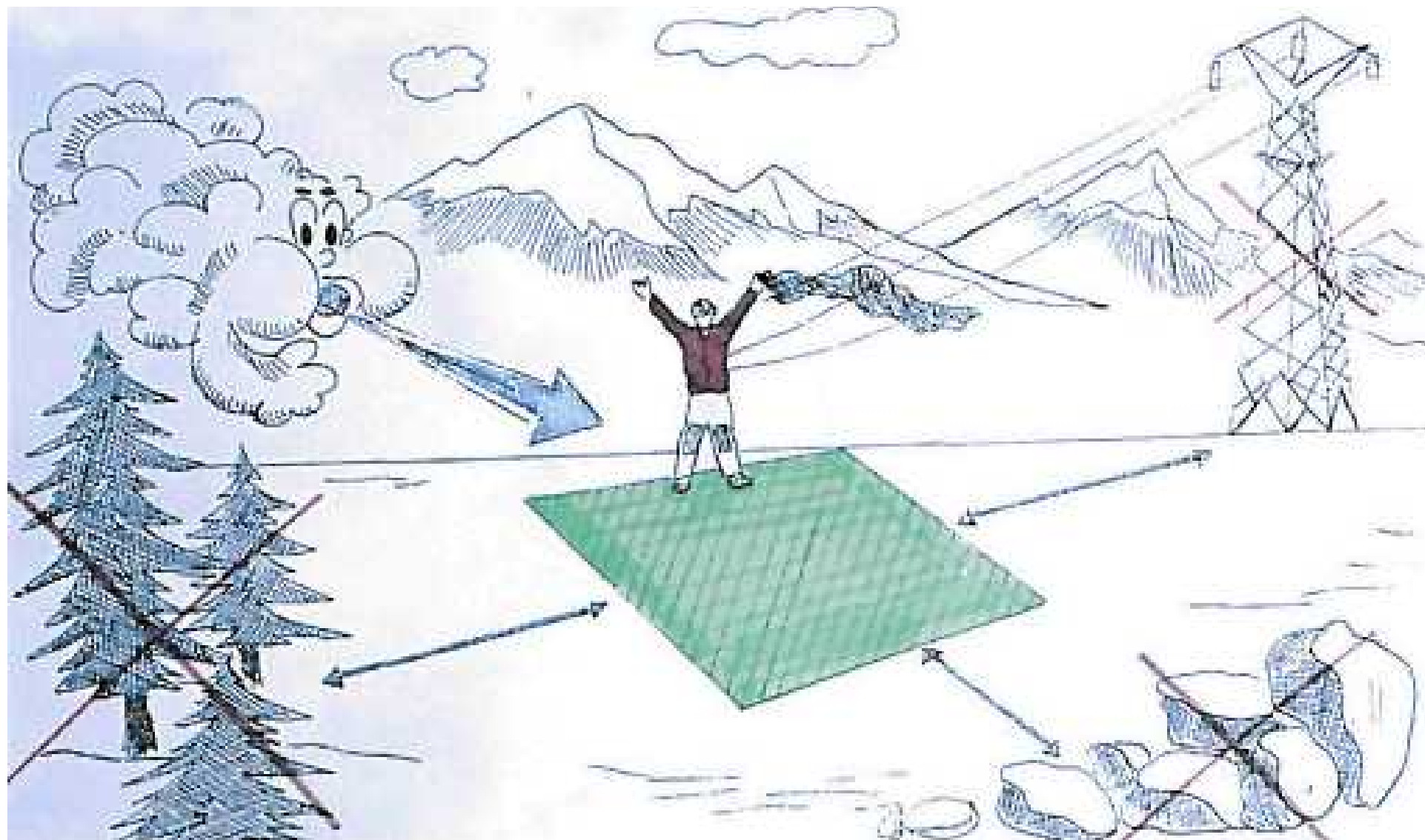
Use the vehicle flashing lights,
but, remember...

**vehicles under bridges or high
vegetation are difficult to see
from the air**



If in contact,
use the “clock position”





“LAND HERE...”



Signal the landing site

RECEIVING THE HELICOPTER

Lose material can be dangerous
for the helicopter and for the nearby persons





**Eye protection
must be worn**

**PROTECT
YOURSELF**



**Wear ear
protectors**

If you are giving
indications over a
snowed surface...



...lean down on one knee
and keep still,
protecting your eyes.

You could be
the only visible reference
for the landing pilot.





MIND YOUR HAT!



WINCH OPERATIONS

- Keep your position
- Do not touch the hook
- Protect yourself
- Hold on a steady structure
- Let winched personnel come to you

A wide-angle photograph of a vast, snow-covered mountain landscape under a clear blue sky. In the upper left, a small red building and a ski lift structure are visible on a ridge. In the lower right, a small figure of a person is standing in the snow. A large red rectangular box is overlaid on the left side of the image, containing white text.

HELICOPTER ON GROUND

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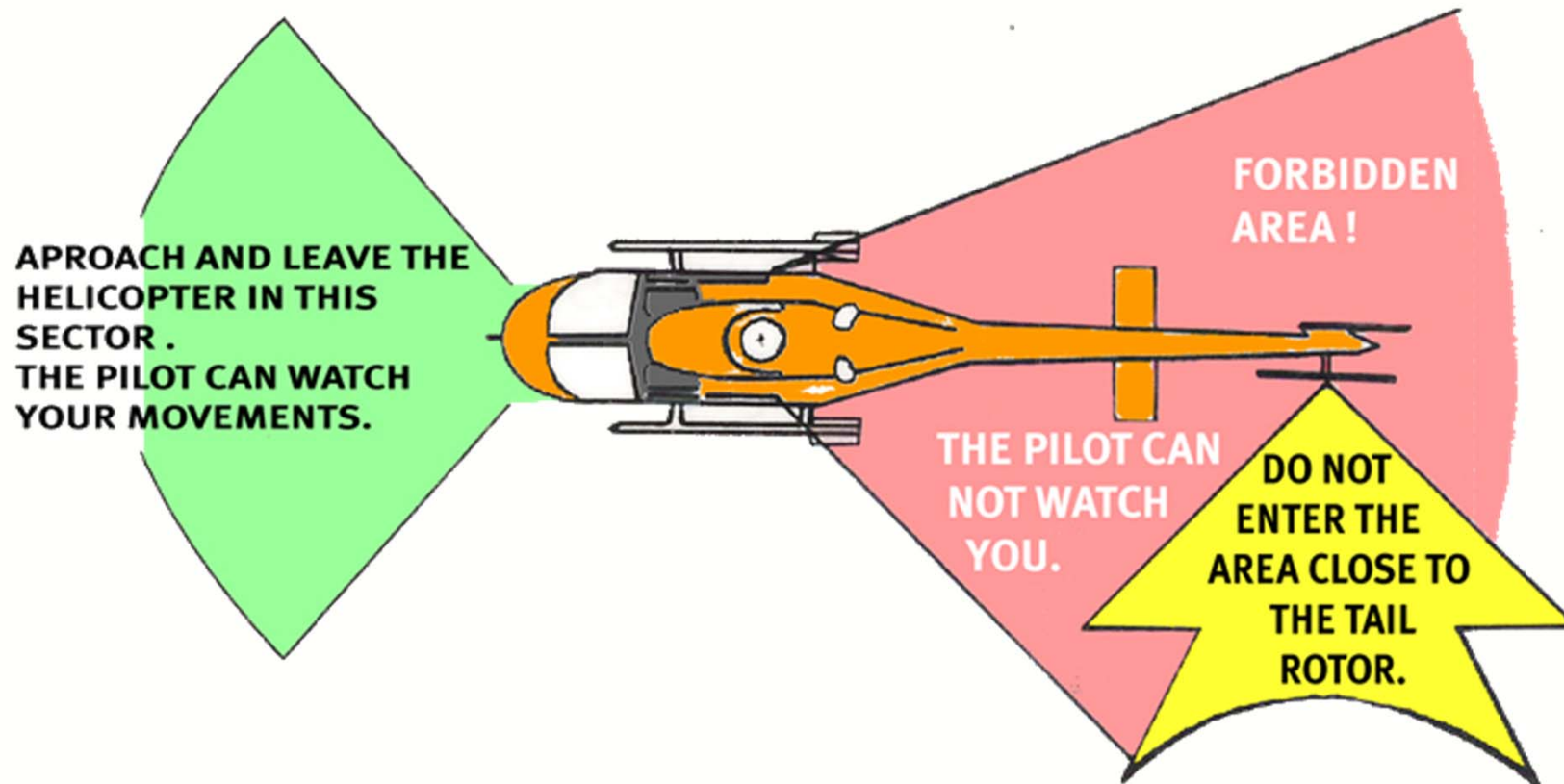
NOTE

Even if familiar...

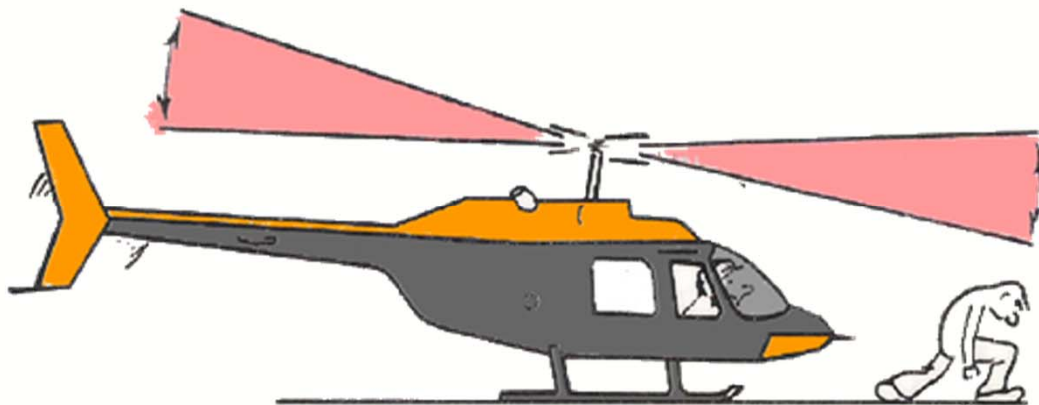
...do not consider yourself authorized
to approach and work within the helicopter area,
even when the rotor is stopped:

**ALWAYS EXPECT AND FOLLOW
THE CREW DIRECTIVES**

HELICOPTER ON GROUND



HELICOPTER ON GROUND



**WHEN ENTER OR LEAVE
THE AIRCRAFT BEND DOWN.
BE AWARE OF : *LOW ROTOR!***



TAIL
ROTOR
IS
DANGEROUS

DANGER



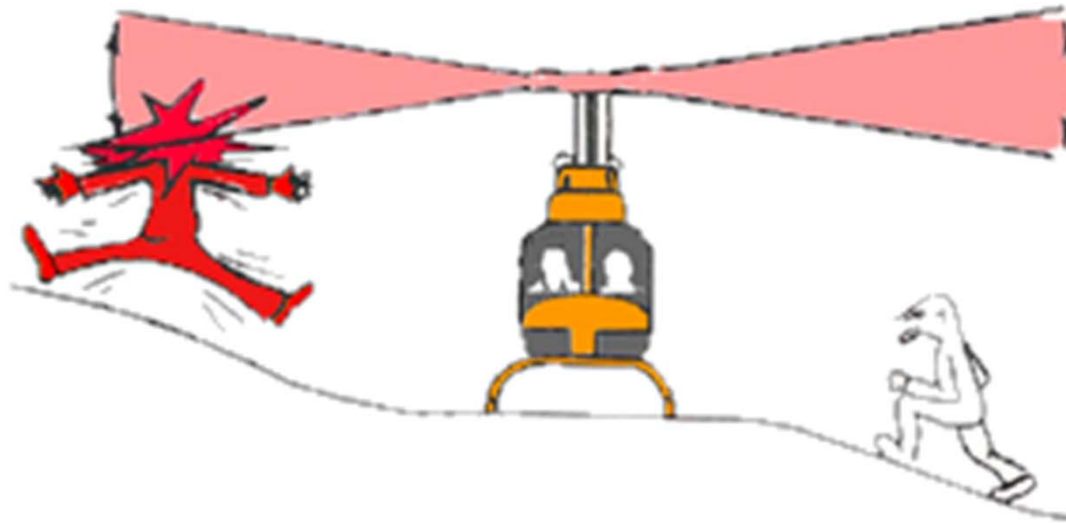
DANGER



DANGER



HELICOPTER ON GROUND



**APPROACH AND LEAVE THE
AIRCRAFT AT THE LOWEST
POINT OF THE TERRAIN**

HELICOPTER ON GROUND



**WHEN LOADING OR UNLOADING THE AIRCRAFT, DO NOT
THROW OBJECTS CLOSE TO THE HELICOPTER**

**LONG OBJECTS, LIKE SKIS OR BACKBOARDS, MUST BE
CARRIED HORIZONTALLY**

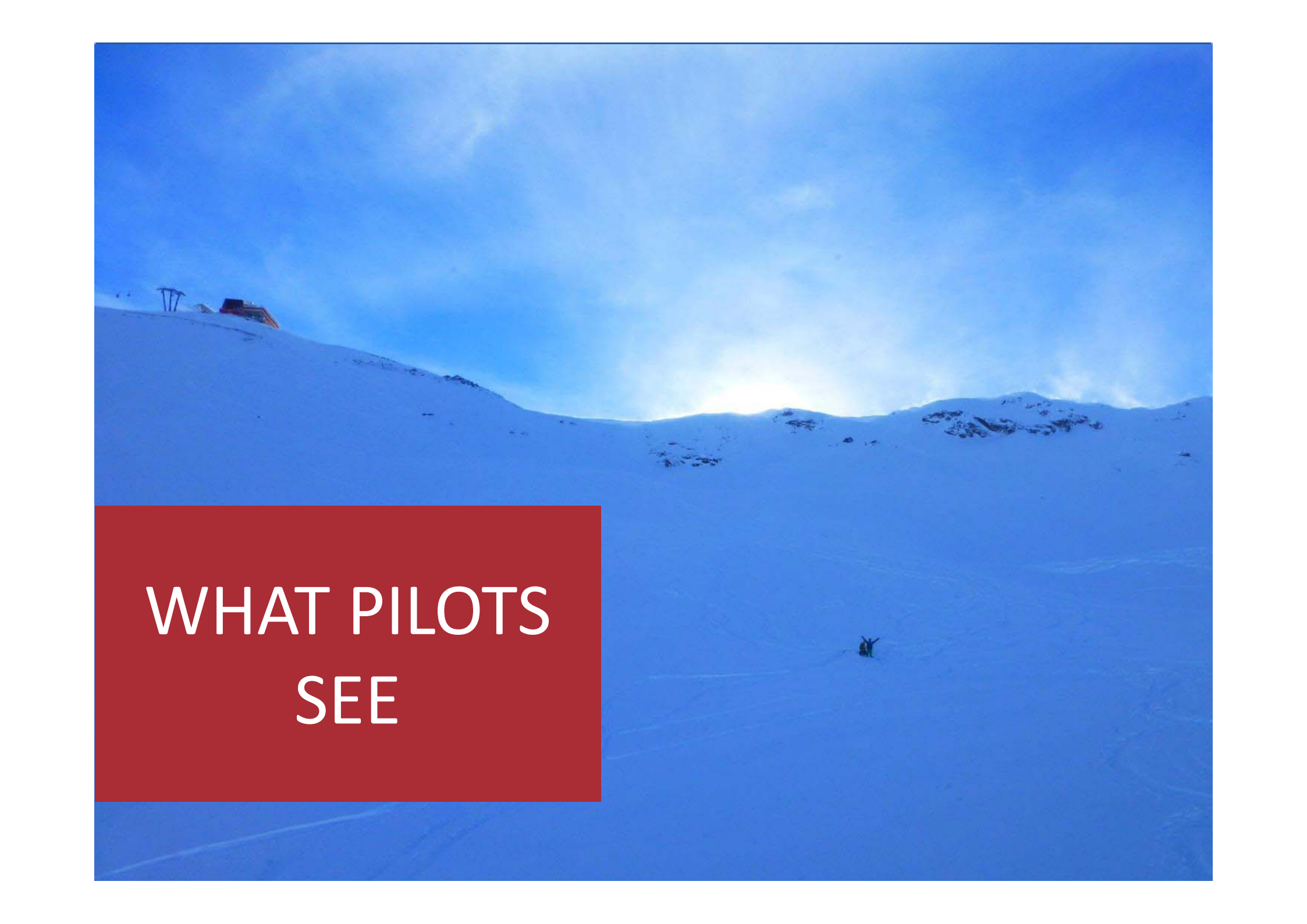


Persons not involved should be kept away

HELICOPTER ON GROUND



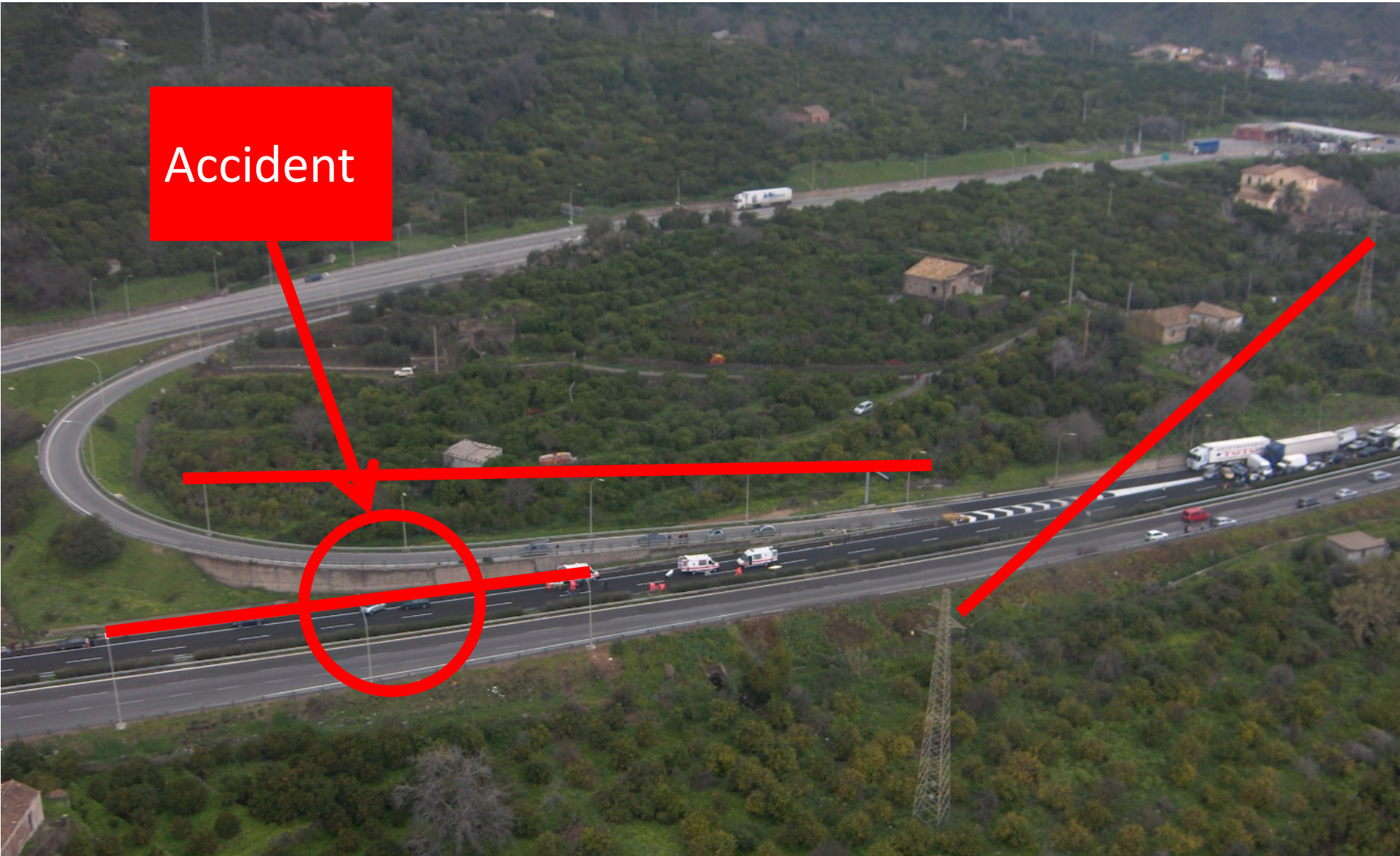
Smoking is
prohibited at
any time in
proximity of the
helicopter

A wide-angle photograph of a snowy mountain landscape under a clear blue sky. In the upper left, a small orange building and a ski lift are visible on a snow-covered ridge. In the lower right, a small figure of a person is seen on the snow. A large red rectangular box is overlaid on the left side of the image, containing the text "WHAT PILOTS SEE" in white, bold, sans-serif capital letters.

WHAT PILOTS
SEE

WHAT PILOTS SEE

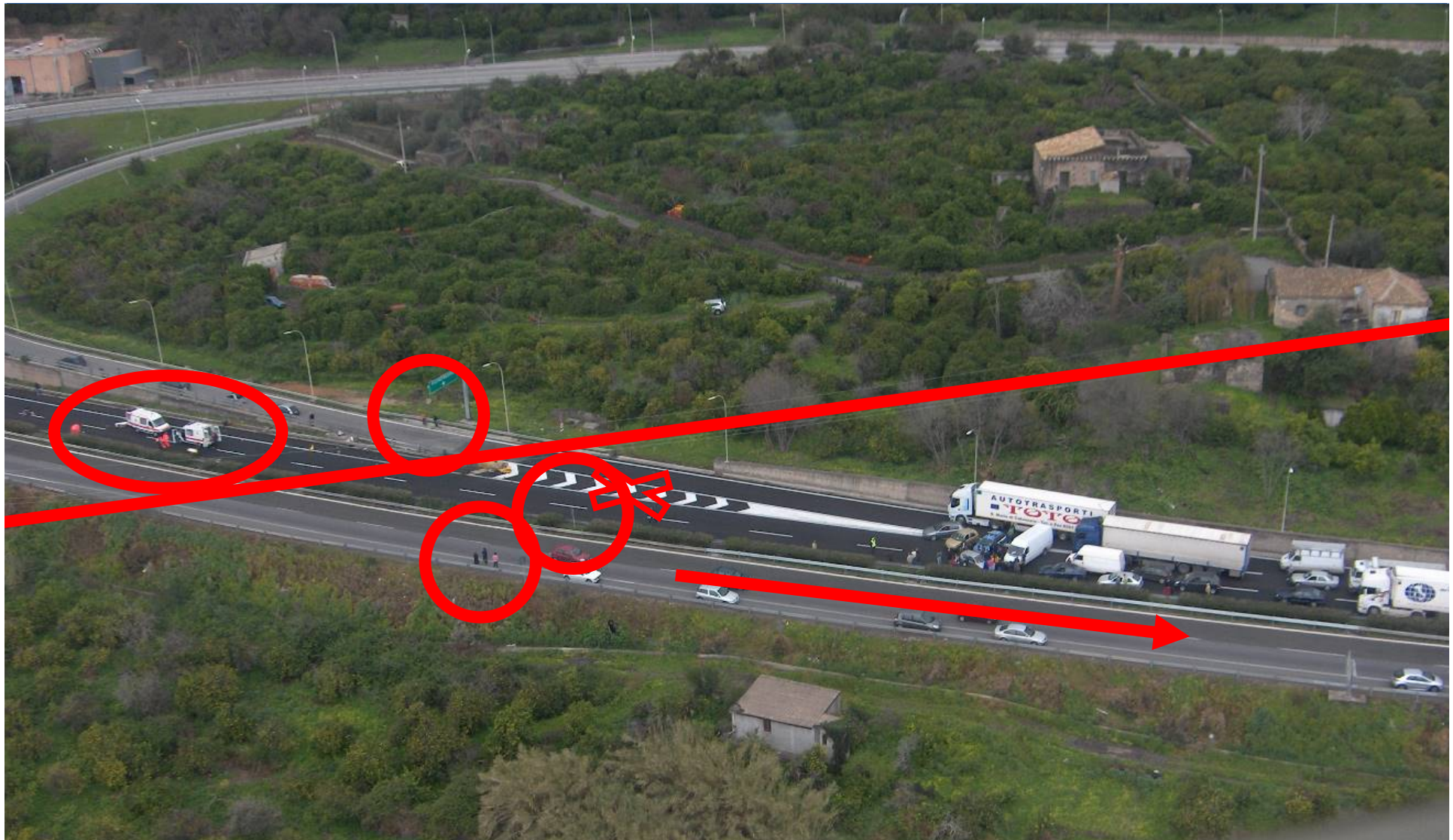
FOLLOWING IS
WHAT A PILOT SEE
ARRIVING IN AN EMERGENCY SITE
AND
WHAT HIS CONSIDERATIONS ARE



Accident

An aerial photograph of a multi-lane highway with a curve. A red circle highlights an accident scene on the highway, with a red arrow pointing to it from a red box labeled 'Accident'. A red line crosses the highway, and another red line points from the right side towards the accident area. The surrounding landscape is green and hilly, with some buildings and a power line tower visible.

LIGHT POLES: problems for landing and take-off



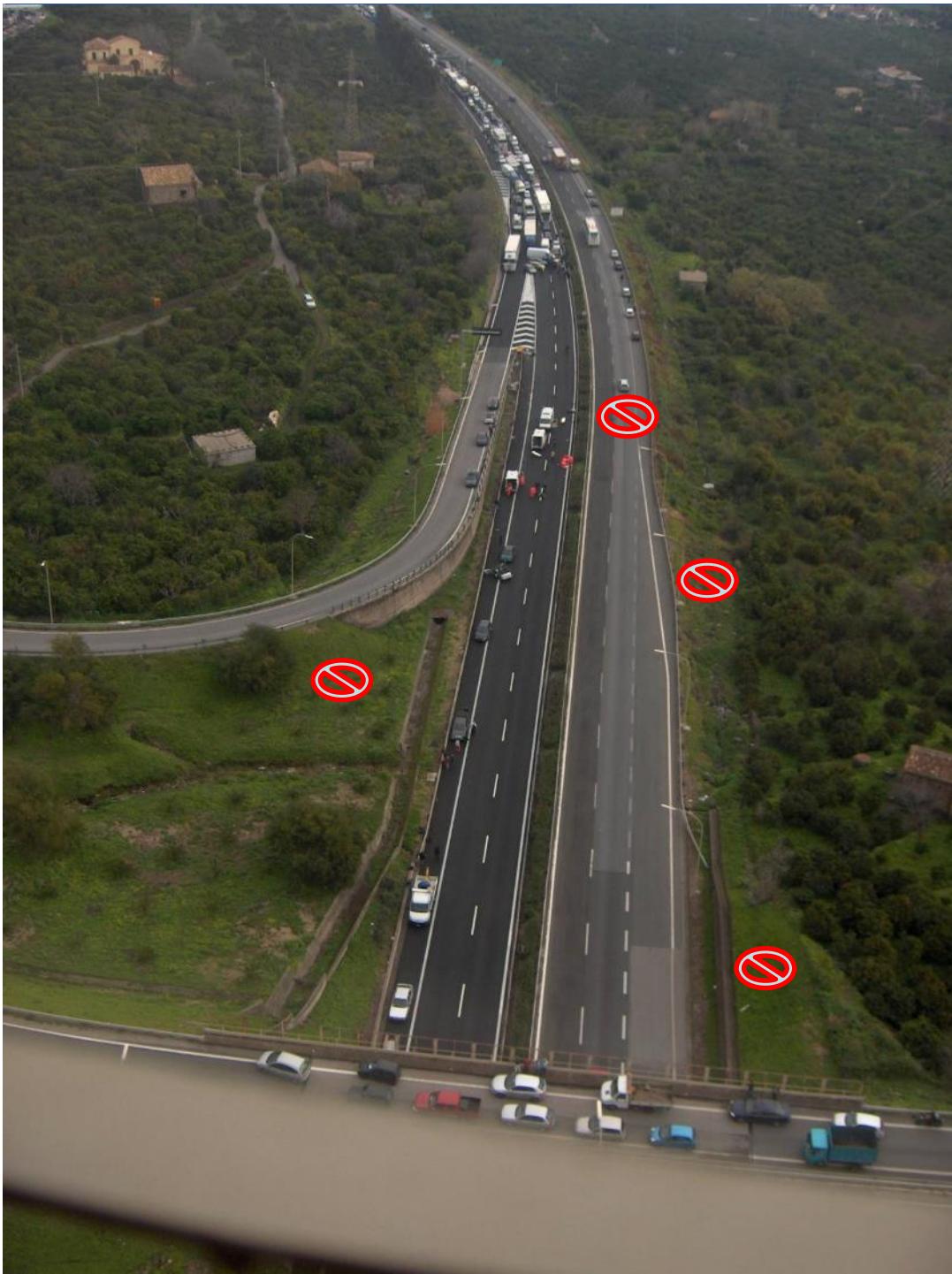
- front and back doors open free

TRAFFIC IN OPPOSITE WAY: not stopped

- tree sheets on stretchers

ALTERNATE LANDING SITES

- Slopped surface
- Trees and bushes
- Obstacles
- Traffic





DID YOU SPOT ALL THESE ELEMENTS?

The background of the slide is a photograph of the Colosseum in Rome at night. The structure is illuminated from within, with warm yellow light glowing through the arches. The sky is a deep blue. The title text is overlaid on the right side of the image.

THE R.O.M.A. CHECKLIST

[illegible]

Helicopter
flies faster
and safer
to the
emergency
site



Dispatch centre and on-site personnel exchange information

On-site personnel
verify and prepare
the landing site

R. – Request

Pass all the important information

O. – Obstacles

Verify and report the potentially dangerous obstacles

M. – Meteorological

Report the meteorological conditions in the area

A. – Area preparation

Prepare the area and verify safety

HELICOPTER MISSION REQUEST CHECKLIST - R.O.M.A.



R Request – Type of mission – Specify position				
Type of mission				
a) Emergency Medical Service?				☐
b) Transport of personnel (number? specific equipment? destination?)				☐
c) Transport of goods (typology? Dangerous? Weight? Dimension? packaging?)				☐
d) Firefighting (where? other aircraft/vehicles/personnel in the area?)				☐
e) Rescue (helicopter fitted with winch? is it required?)				☐
Position				
County: _____		Town, road: _____		
GPS coordinates (verify lat/long units):				
Degrees, Minutes, Seconds		N	°	'
Degrees, Minutes, fraction of Minutes		N	°	'
O Obstacles – Verify obstacles in the landing area				
Type of obstacle	Existence	Actions or Communications		
Power lines, pylons, antennas	☐ no ☐ yes	Report distance from landing point		
Funicular, lifts, cables	☐ no ☐ yes	Warn the funicular/cable manager		
Drones, other flying objects	☐ no ☐ yes	No drones. Inform if other aircrafts. Radio freq.		
Animals, birds (e.g. seagulls)	☐ no ☐ yes	Ward off birds. Pay attention to cows, horses, etc.		
M Meteorological – Report meteorological conditions				
Visibility	☐ Good (> 5 km)	☐ Marginal (2 – 5 km)	☐ Lower than 2 km	
Wind	☐ Light	☐ Moderate	☐ Strong or gusting	
Conditions	☐ Cloudy, overcast	☐ Rain	☐ Thundershower	
Mountain tops	☐ Visible	☐ Not visible	☐ Patches of fog	
Phenomena	☐ Hail	☐ Sand storm	☐ Tornado	
A Area – Prepare area - Safety				
Type of area	☐ Prepared (helipad, heliport) ☐ Unprepared ☐ Elevated helipad			
	☐ Road ☐ Highway (traffic stopped?)			
	☐ Sports field (Guardian advised? Gates opened? Lights on?)			
	☐ Ground, grass field ☐ Beach ☐ Mountain			
	☐ Flooded ☐ Ski run or snowed surface			
	☐ Other: _____			
Lights (at night)	☐ Not available ☐ Available: ☐ Removable lights ☐ Fixed spot lights			
Surface	☐ Flat ☐ Sloped ☐ Hilly ☐ Mountain			
Personnel in the area	Name	tel. number	Radio freq./Ch.	Band
Firefighters				
Medical				
Police				
Other – Supplementary information				
Planned stops?	☐ no ☐ yes	Where? _____		
Persons to be embarked?	No.: _____	Total weight: _____	Where? _____	
Passengers tel. No. (at least one):	_____			
Goods:	Type: _____	Total weight: _____	Dimensions: _____	



QUESTIONS?