

HELICOPTER MISSION REQUEST VADE MECUM

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2. FOREWORD

This document has been developed to help all those people, who may not be familiar with helicopters, to cope with a request for helicopter support (intervention) and with the preparation and management of the landing area.

Typical situations are:

- ambulance medical personnel in a road accident when requesting an emergency medical helicopter (HEMS);
- police personnel when requesting a police support helicopter;
- firefighters in a forest fire when coordinating operations with firefighting helicopters;
- support personnel when cooperating with a SAR (Search And Rescue) helicopter;
- Civil Protection personnel in an emergency context when in need of a rescue helicopter or an evacuation mission;
- civilian forces when dealing with a military helicopter intervention;
- etc.

The document is a helpful guidance for:

Front line (on-site) emergency personnel - They will understand:

- what are the hazards related to a helicopter intervention;
- what kind of information may be requested by the dispatch centre;
- what kind of information will be useful to the helicopter pilot;
- how to prepare the landing area;
- what are the signals to give to the landing helicopter.

Emergency dispatch centres personnel – They should be trained to:

- know what kind of information should be requested from front line personnel at the scene;
- know what kind of information will be useful for the pilots;
- give full support to the helicopter in order to find the area of intervention.

Pilots – They should know what kind of information will be available to them before and during the mission:

- where is the area of intervention;
- what to expect in the area;
- ground support for landing and subsequent take-off.

This document is a guideline for training personnel. They can amend it with the required information and disseminate it amongst the dispatch centres and the front line personnel (ambulance drivers, firefighters, police, etc.).

This tool is an initiative from Capt. Franco PESCALI, Italian Police helicopter group, and it has been further developed by the EHEST Specialist Team Ops & SMS.

This work is dedicated to departed Paolo PETTINAROLI, president of the "8 Ottobre 2001-per non dimenticare" (8 October 2001-not to forget) committee, in memory of the Linate air disaster.

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3. DISCLAIMER

This document and the files related to the “Mission Request” tool have been developed by professionals with a wide experience in various types of operation and environments. The information suggested herein is a set of best practice behaviours to be explained to non-aeronautical front-line and on-site personnel that may cooperate with helicopters during some kind of emergency.

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

EHEST and the Specialist Team Ops & SMS will not be responsible or liable, directly or indirectly, in any way for any misuse or for any law infringement subsequent to the application of these best practices.

4. TYPICAL SCENARIO

In order to understand the phases of an emergency helicopter mission, the following is a typical intervention request.

TRIGGERING EVENT

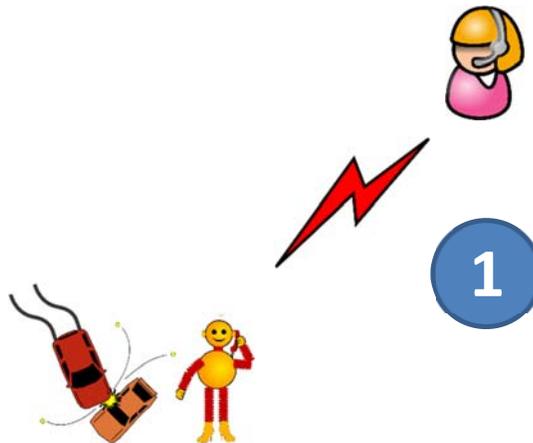
Something happens and an emergency arises. Generally, this involves human lives.

For example, a car accident with people in need of medical help.



DISPATCH CENTRE INVOLVEMENT

Somebody alerts the emergency dispatch centre, in this example the medical emergency centre. It could be anybody: people involved in the accident, on-site ambulance, police, firefighters, nearby people, etc.



Information exchanged at this stage is extremely important. Based on this information, the dispatch centre can take the most appropriate action.

The dispatch centre will inquire about the on-site conditions and, if deemed appropriate, it will request the helicopter intervention.

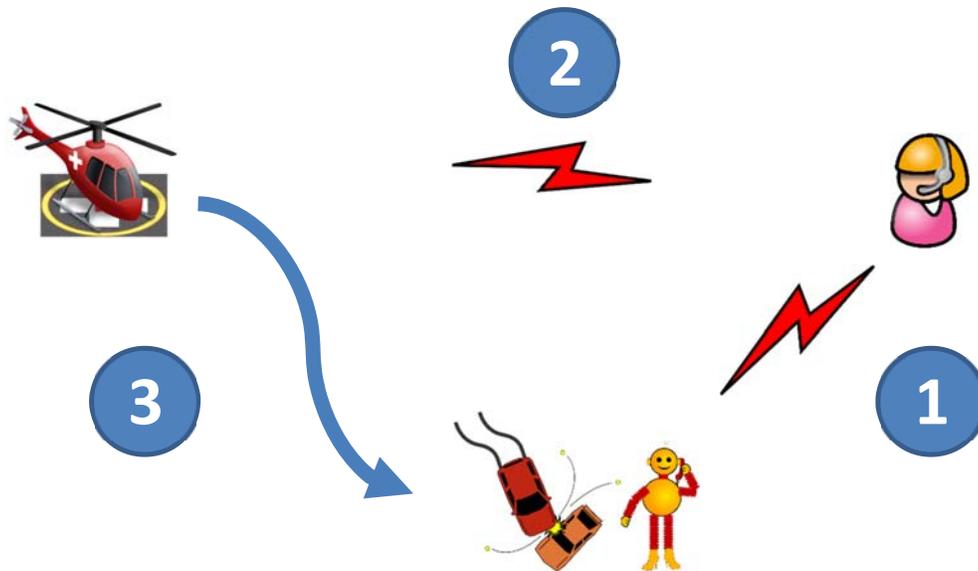
If the on-site person who is calling has been trained, this information is passed in a very little time, thus reducing the time of intervention.

Moreover, if the on-site person is trained, the emergency centre will go very easily through the checklist to verify that the landing site is set up appropriately, avoiding long explanations and requests for further details.

HELICOPTER INVOLVEMENT

When assigning the mission to the helicopter, the dispatch centre will pass a certain amount of information to the pilot. This information is essential for:

- arriving in the intervention area;
- spotting the intervention site;
- landing safely;
- providing the most appropriate help.



In order to have a fast, safe and efficient intervention of the helicopter, the on-site personnel and the dispatch centre must exchange crucial information, to be passed to the pilot, and then prepare the landing area.

This vade mecum explains what the on-site personnel should check, and what details the dispatch centre should gather in order to pass the most important information to the pilot.

5. DIFFERENT PERSPECTIVES

Things seen from the ground and from the air can differ significantly.

All the actors have their own perspective and report the situation based on this. Unfortunately, information passed in this way could be very confusing when elaborated from people using different references.

As an example, this could be the perspective of a person close to an accident:



Picture 1 - The on-site personnel perspective

The on-site person reports to the emergency centre that an accident happened along the road from “Paternò” to “Adrano” (two local towns) at the intersection to “Adrano”.

Incidentally, there are two roads connecting the two towns: a main large uphill road and an old downhill country road. The accident happened in the secondary road, but no mention was made from the on-site personnel, considering the information they have provided clear enough and detailed. After all, “we are in a well open space... helicopter can see me from miles!”.

Because the main large road between the two towns has very heavy traffic and most accidents happen there, the emergency centre operator makes an erroneous assumption that this is the location of the accident and passes the information to the helicopter pilot accordingly.

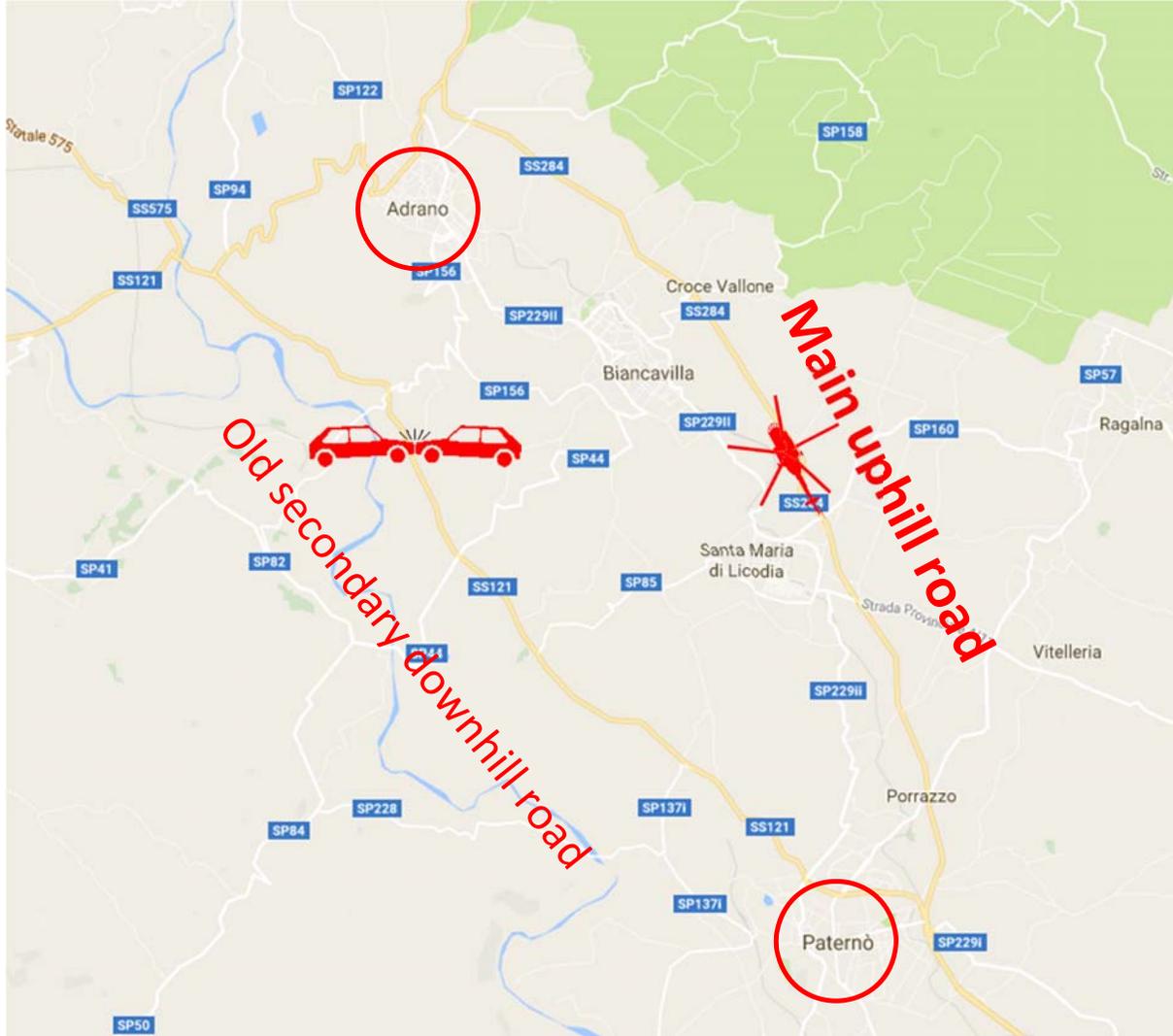


Figure 1 - The emergency centre perspective

The pilot takes the information from the emergency centre and he makes up a mental representation of the area of operation, eventually plotting it on a roadmap. Once in flight what the pilot sees is a bunch of roads, houses, hills, trees, woods, rivers, ponds, moving and parked cars, and many other distracting elements. He has to spot some kind of clue among all these conflicting elements. If the initial information is not precise enough, it could be very difficult to catch the signs of the accident area.



Picture 2 - The pilot perspective

That's why a well-trained on-site personnel and prepared dispatch centre operators are essential for an efficient use of the helicopter. Wrong or lack of simple information could deviate the pilot from reaching the right position.

6. IDENTIFYING THE INTERVENTION AREA

There is no practical use of information like “we are close to a high pine tree” while in the middle of a forest! Think wide!

When approaching the area, the pilot will initially face a wide space. The best clues he can spot are those **horizontally large and vertically high, especially those in contrast with the surroundings**. When passing the information to the emergency centre, try to explain the location of the emergency in these terms, which could be more useful references for the pilot.

GEOGRAPHICAL COORDINATES

This is, most of time, the best way to pass a position to the pilot. Helicopter navigation systems can easily accept geographical coordinates and can track the helicopter right over the emergency site, no matter the visual clues on the ground.

Nevertheless, locating and passing the correct coordinates is not always so simple, and common reading errors can bring the helicopter to a point only a few kilometres away from the target, but enough to make the operation more complicated to achieve.

Nowadays, most cellular phones have GPS capabilities. If available, it is suggested to retrieve the coordinates and pass them to the emergency centre. **It is very important that the coordinates are passed exactly as shown in the GPS apparatus**, reading