

# Leonardo Subproject: Rescue from high rise buildings



# Rescue from high rise buildings

## Index:

- ➔ General
- ➔ Preplanning
- ➔ Tactics
- ➔ Safety advices – particular risks

# General

- ➔ Rescue techniques at high and very high rise buildings are only slightly different from „usual“ intervention techniques
- ➔ Nevertheless one must beware the peculiarities of these interventions at high rise buildings to avoid situations which one might **hardly control**.

# General

In the course of risk assessment one has to identify:

- ➔ Anchor points
- ➔ Entry points into the building at various heights

# Preplanning



In the preplanning phase one should get acquainted to the location



View from Commerzbank to Dresdner Bank (260m)

# Preplanning

## ➔ Anchor points

On nearly every roof of a high rise building one can find technical installations such as airconditioning and – cooling systems.

**Information** from responsible technicians is required to judge the proper fastening of such installations with the entire structure.

View from Commerzbank to Dresdner Bank (260m)

# Preplanning

## ➔ Rope length

To adjust the appropriate length of the rope one must know the height of the high rise building.

## ➔ Rope stretching

Principally one has to use static ropes, because the rope stretching of dynamic ropes is high according to the height of the building

View from Commerzbank to Dresdner Bank (260m) / Frankfurt

# Preplanning



**Anchor points  
are normally on the roof**



View from Commerzbank to Commerzbank Tower 1 (260m)



# Tactics

## ➔ Isolate the site in a wide range.

Falling equipment or debris may fly several hundred meters.

## ➔ Intervention plan of the team (aims, tool and tasks) must be understood by every team member.

Change of tactics will hamper the intervention significantly in case of very long ropes.

# Tactics

➔ **If entry into the building is possible, clearly identify and mark the entry point, e.g. with little flags.**

It is very likely to mix up the various floors.

Entering with a victim normally requires support from other team members.

# Safety advice

## Special risks

### ➔ Beware the temperature in heights

In such heights the temperature may drop significantly

Felt temperature on the skin decreases with wind speed.

Appropriate clothing is required.

# Safety advice

## Special risks

### ➔ Beware wind condition

Even slow winds may cause drift of the rescuer away from the building.

Even with nearly none wind there may wind effects occur, e.g. because of warm-up current of air.

# Safety advice

## Special risks

➔ **Always use a guide rope when descending is required**

Install guide rope parallel to the work rope and fix it at the entry point or on ground level.

A connection from the rescuer to the guide rope avoids drifting.

# Safety advice

## Special risks

➔ **Passive descending is recommended.**

Because of windy conditions it is often difficult or even not possible to stabilize position of rescuer and victim

# Safety advice

## Special risks

- ➔ **Install good working radio communication, e.g. with headsets with remote control (not triggered by voice)**

In such heights communication without electronic means is nearly impossible. Even hand signs have their limitations because of the long distances

# Safety advice

## Special risks

➔ **Beware very long time to descend victim**

The use of stretcher or harness differs from medical indication