

RAPID INTERVENTION TEAM



FIRE STATION 5 WARSAW

POLAND



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EVACUATION METHODS

1. NOT INJURED FIREFIGHTER WITH LOW AIR SUPPLY

A simple assumption, but it seems the most likely scenario. The crew operates in smoke and then realizes that there isn't enough air to exit. It can also happen due to getting lost or disoriented.



Photo: Evacuation of the injured person using a rope, holding each other's shoulders

Order of actions:

1. The firefighter realizes he have low air/is lost.
2. He initiates the RESCUE procedure.
3. The Incident Commander deploys the RIT team.
4. The RIT team, using a rope, reaches the victim. The rescuer attaches the rope and leaves it.

5. The RIT team assesses the situation on-site and decides on a potential air supply exchange and evacuation method.
6. The victim remains in the used SCBA but is connected to the air supply from the RIT bag.
7. One of the RIT firefighters carries the bag with the victim. A long air hose from the bag provides flexibility.
8. While exiting by the rope, the RIT firefighters position the victim and another firefighter from the crew between them.

In case two firefighters running out of air, the entire RIT team (five firefighters) equipped with two air sources - two RIT bags – enters the scene.



Photo: Attaching the rope and leaving it

2. EVACUATION ON FLAT GROUND

This method works well on a flat ground over a short distance, provided there are no obstacles, and the firefighters do not slip. If it is known that the evacuation route is inadequate or there are difficulties in pulling during the evacuation, you can immediately switch to the method using webbing loops (Chapter 3).

At the beginning, follow the steps "Tasks after reaching the injured person" (Chapter 11). Once the RIT commander decides to proceed with quick evacuation, the RIT firefighters reattach the hip belt and tighten the harness between the legs. Then, they grab the straps and pull the injured person towards the exit. The RIT commander walks ahead of the team carrying the RIT bag and the thermal imaging camera to clear the way. A hooligan tool can be added to this method, by placing it under the straps to aid in pulling. A variation using webbing loops to grab the straps is also possible.



Photo: Quick evacuation using SCBA straps



Photo: Quick evacuation with webbing loops



Photo: Hooligan tool variant

2.1 Attaching the bag

If it is necessary to replace the air supply, the RIT bag should be attached as shown in the photo. The bag is placed between the injured person's legs, while the strap with the carabiner is detached from the far end of the bag (at the blue flare). It is then pulled under the injured person's arm, passed over the air device, and then secured back to the bag under the other arm.



Photo: Attaching the bag around the injured person

With the bag properly attached, you can easily proceed with evacuation on the webbing loops.

3. EVACUATION USING WEBBING LOOPS

This method is suitable for evacuation on the flat ground and stairs. Always remember to refasten the hip belt between the legs and tighten the shoulder straps before evacuation. Webbing loops are discussed in subsection 9.2 "Webbing loops".



Photo: Quick evacuation using webbing loops without changing the air supply

Two firefighters are needed to lift the casualty. The first firefighter secures the victim from the head side, while the second secures the legs. It is more comfortable if the firefighter at the head side is taller. When carrying the casualty, it is beneficial to straighten up. The firefighter at the head side bears more weight, so this role should be assigned to a firefighter in better physical condition. The RIT commander leads the evacuation, walking ahead with thermal imaging camera and using a rope for guidance.

3.1 Head Rescuer



Photo: Fastening the injured person under the SCBA straps

The RIT firefighter at the head side uses a webbing loop, which is thrown over the back of their SCBA. The loop is then threaded under the SCBA straps of the casualty.



Photo: Fastening the webbing loop with a carabiner under the shoulder straps

3.2 Legs Rescuer

The RIT firefighter at the legs secures the webbing loop to their SCBA in the same manner as the head rescuer. He kneels and position the injured person's tucked legs between his own. Then he fastens the webbing loop under the injured person's knees, ensuring it is correctly placed at the knee band.



Photo: Firefighter securing the legs

4. EVACUATION USING WEBBING LOOPS WITH A BAG



Photo: Evacuation using webbing loops with a bag

The RIT bag is attached as in a “Quick evacuation on a flat ground”. The firefighter at the head secured the webbing loop to the SCBA straps, while the firefighter at the legs positions the injured person’s bent legs over the bag and fastens the webbing loop under the knees. Additionally, the head firefighter always leads the evacuation: when moving downstairs – he descends first, when moving upstairs – he ascends first, ensuring that the RIT bag does not drag on the ground.



Photo: Attaching the bag around the injured person



Photo: Fastening the webbing loop under the knees



Photo: Connecting the RIT firefighter from the leg side (alternatively, you can use 160/180 webbing loop or Rhinoevac V2)



Photo: Bag positioned between the RIT firefighter's legs when he climbs stairs

5. EVACUATION USING A LADDER

Before using this method, the evacuation routes within the building must be identified – consider whether a ladder would be more efficient. It is also possible to send one team up the staircase while using the ladder method with firefighters from outside the RIT. This method does not require specialized high-altitude equipment, but it should only be used when there is a chance of saving a life and when equipment and time constraints make it necessary.

If the firefighter inside is not injured, simply placing a ladder against the windowsill is sufficient for self-evacuation. However, if there is an injured person, the RIT team must enter the building to assist.



Photo: Evacuation in a ladder cradle

Execution

1. Firefighters position the ladder against the windowsill.
2. Two RIT firefighters enter and secured the injured person using webbing loops (crossed webbing loop between the SCBA and back + catching the legs under the knees with the second webbing loop - both webbing loops attached to the carabiner). Next, the crew directs the injured person toward the window.
3. Meanwhile, firefighters outside position the ladder above the window.
4. After that, a firefighter climbs the ladder and secured the rescue rope system, using the carabiner of the rope on one side, and the webbing loop with the carabiner on the other (photo below). After that, the RIT firefighter lowers the rope to the window.
5. Inside, the RIT firefighter attaches the rescue rope to the carabiner on the webbing loops of the injured person. Then, he signals the firefighters below that they can pull the injured person out.
6. It is important that the firefighter below stands directly under the ladder to maintain balance and prevent shifting the center of gravity. At the same time, the RIT team assist in lifting the injured person until he can be pulled over the parapet. Then the firefighters from below lower the casualty.
7. After casualty is secured, the ladder is repositioned against the windowsill so the RIT team can safely descend.



Photo: Fastening the injured person using webbing loops



Photo: Positioning the webbing loop under the injured person's back

The webbing loop can be crossed in your hands and then placed under the SCBA, ensuring it remains properly aligned or it can be crossed only while threading it between the injured person and the SCBA.



Photo: Ladder Evacuation Bag



Photo: Attaching the rope to the ladder

When reconnaissance during an operation indicates that this method is viable, a designated equipment set should be prepared in the equipment area: an extension ladder, a rescue rope, webbing loop with carabiner. More details in subsection: 9.1 "Equipment area".

The equipment bag contains a rope dedicated solely for ladder use; it is not a rescue rope used in rescue operations. A high-rescue rope may also be used, but when lowering a casualty without additional equipment (due to time constraints), a rescue rope is preferable because its thickness allows for better control. During training exercises, special attention should be given to safety measure, including proper belaying and exercises with a mannequin. Additionally, it is beneficial regularly practice ladder placement to ensure efficient deployment during real operations.

6. EVACUATION FROM A BASEMENT

6.1 Entering the Basement

When the RIT team enters through a window, the dept of the basement must be known in advance to prevent accidental falls. RIT firefighters can enter using a ladder or by securing a rope to their chest carabiner for safety while descending.

6.2 Evacuation options

6.2.1 Large window (approx. 40 cm high and larger) – faster but requires more people outside.



Photo: Evacuation through a large window

Execution

1. The RIT unit enters to the basement through window.
2. The victim is secured using two webbing loops, like ladder evacuation (one loop under the legs + one loop between the SCBA and the back). Both webbing loops are attached to the rescue rope.
3. At this point, the RIT firefighters signal the team outside that the rope can be pulled. At the same time, they assist in lifting the victim, trying to direct them towards the opening (when the victim reaches the window, they should be pulled out slightly sideways, first with the head).
4. It is important that there are several firefighters outside to pull the casualty out efficiently.



Photo: Positioning the webbing loop under the injured firefighter's SCBA

6.2.2 Small window (commonly found in building where the injured firefighter with SCBA may not fit through the opening).



Photo: Pulling out the injured person at a small window

Execution

1. Two RIT firefighters enter the building.
2. They remove the SCBA from the injured firefighter, place them on their stomach and position a webbing loop under their chest.
3. Then place a rigid board on their back and put the webbing loop through the holes in the board, securing it with a knot.
4. The RIT firefighter attaches a rescue rope to the webbing loop.
5. Then RIT firefighter signals the outside to begin pulling the rope, while securing the injured person. At the same time, the second RIT firefighter ensures the removed SCBA remains near the injured firefighter's head, as it is still connected.
6. Once the injured person is in a vertical position, the RIT firefighter passes the SCBA up through the hole.

7. Once the SCBA is removed (still connected), the outside firefighters pull the rope. When the board is at the height of the window horizontally, the RIT firefighters assist by lifting the board from below to facilitate the evacuation.
8. RIT unit exit the basement.



Photo: Removing the SCBA and placing a webbing loop under the arms



Photo: Webbing loop secured with a knot on the board



Photo: Passing the SCBA with the injured person in a vertical position



Photo: Lifting the firefighter, while being pulled from above

7. EVACUATION FROM A HOLE

This method requires prior assessment to determine whether the injured person can be reached by any other means. Additionally, special attention must be given to the stability of the ground around the hole to prevent collapse. This technique can also be used to pull an injured person up a wall, with rescuers standing on one side and lifting the casualty vertically.

For this method, a hose must always be used - whether it contains water or not – so it should always be available in the equipment area. Upon receiving information about a collapsed surface or a person who has fallen into a hole or trench, the RIT team must take a hose with them.

This method must be well-practiced and should only be used when there is a probability of saving a human life and when safer methods are not available feasible given the circumstances. Effective communication between RIT rescuers is crucial to ensure that, while pulling the injured person out, they do not lean to one side, which could cause another rescuer to fall into the hole. During training exercises, proper safety precautions must be taken, including using safety harnesses and securing rescuers firefighters or practicing with mannequin.

7.1 Lowering the RIT Rescuer

To prepare the casualty for evacuation, a RIT firefighter must first be lowered into the hole. This can be done in two ways. The first method is to attach a hose to the webbing loop fastened around the chest of the rescuer being lowered. The second method is to lower the rescuer as in the evacuation of an uninjured firefighter (see section 7.2 "Uninjured firefighter").



Photo: RIT rescuer lowered from two sides



Photo: RIT rescuer lowered on a wall

7.2 Uninjured firefighter

After the RIT rescuer has been lowered and assesses the situation, he instructs the casualty on how to position themselves on the hose. One leg in front to maintain balance, while the other bent at the shin/ankle joint on the hose.

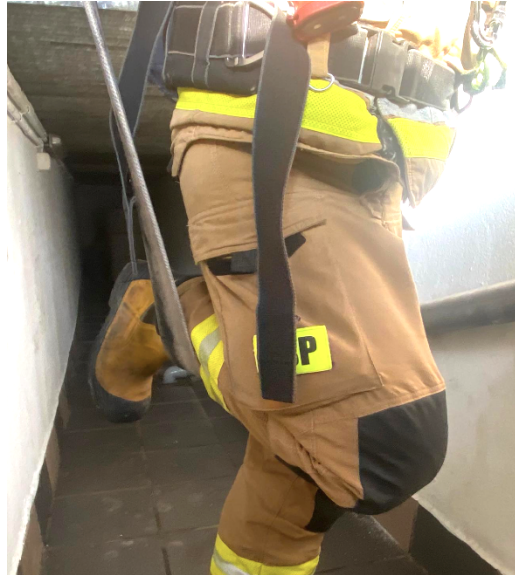


Photo: Position of the uninjured person – on the shin/ankle joint

If the victim has difficulty positioning themselves on the hose, you can attach a hose to a webbing loop tied with a knot. This is also an alternative way to pull out an unconscious victim.



Photo: A section fastened with a webbing loop and knot with a carabiner

7.3 Unconscious injured person

Execution

Sitting the casualty up. Pull the hose under the SCBA. Then secure the hose by tightening a webbing loop around the casualty under their arms with knot. Then wrap their arms behind the hose.



Photo: The hose pulled under the SCBA



Photo: After tightly fastening the hose with the webbing loop, victim's arms should be wrapped around it



Photo: Victim in front



Photo: Injured person from behind

KNOWLEDGE

8. INCIDENT COMMANDER (IC) AND RIT COMANDER

8.1 IC and RIT actions after the RESCUE procedure

1. RIT team monitors radio channels.
2. A RESCUE call is made or contact with the firefighter is lost.
3. The IC confirms the call by repeating it, asks for more additional information.
4. IC deploys the RIT team, which prepares to enter.
5. The IC orders radio silence on the main channel and assigns a new channel for the rest of the firefighters. The original channel remains for the IC, RIT and victims.
6. The IC dispatches additional backup units to replace RIT firefighters.
7. After the call is resolved, the IC conducts a personal accountability check.

8.2 RIT Commander's reconnaissance

Upon arriving at the incident, the team puts on RIT identification covers. The RIT Commander gives initial instructions to two RIT firefighters and the driver regarding the equipment staging area. - where to set it up and what to place there. Afterward, the RIT Commander and the other two RIT rescuers report to the IC and gather information, including:

- Actions taken so far.
- The number of firefighters working inside and their names.
- Their current locations.
- Radio channels in use.
- Building entry points.
- Any other critical information.

Next, the RIT Commander conducts reconnaissance with two RIT rescuers, assessing:

- The overall layout of the facility.

- The number of levels (basement, floors, roof).
- Entrances (doors, gates - based on this the specifics of the building).
- Staircases (likely evacuation routes for the RIT team).
- Windows (including whether they have security bars).
- Ladder deployment possibilities (extendable ladders, existing ladders on the building, access for ladder trucks).
- Building structure (e.g., whether metal structures can be cut if needed).

Following reconnaissance, the RIT Commander may order the relocation of the equipment staging area to a more tactically advantageous position. The team remains in constant readiness (with equipment prepared) throughout operations. During prolonged incidents, if circumstances allow, firefighters rotate to maintain operational readiness.

8.3 RIT Commander's File

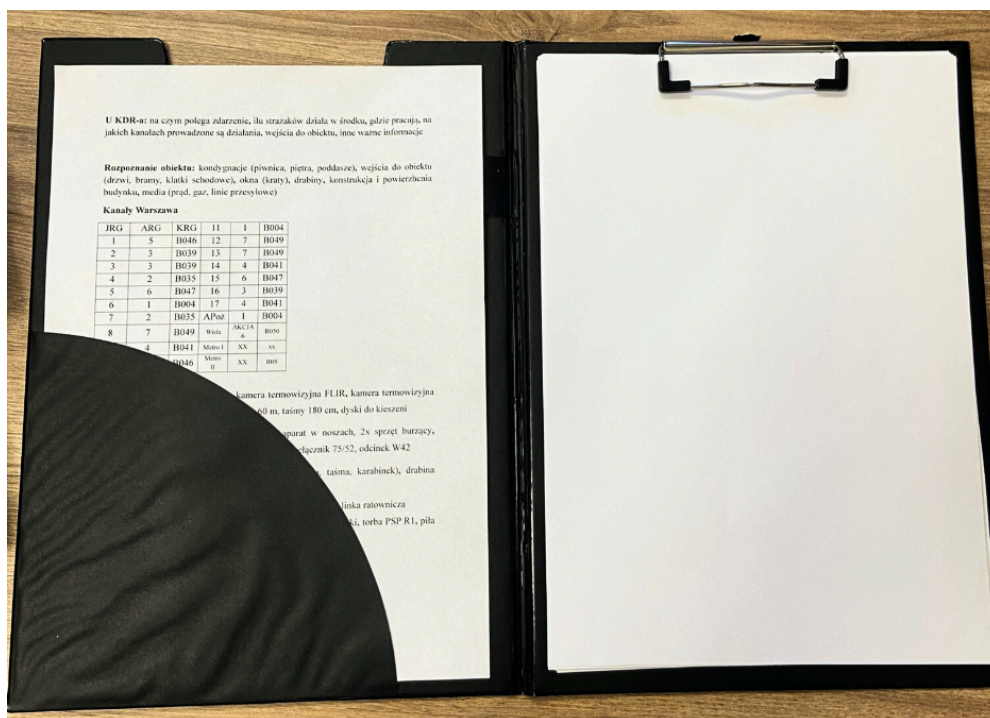


Photo: RIT commander's file

During the incident, the RIT commander is supported by a file containing key information, including: a checklist for gathering information from the IC,

reconnaissance guide for assessing the object, a list of radio channels used, and equipment categorized by specific rescue methods that may be useful in a situation. Additionally, the file includes blank sheets for jotting down crucial details or sketching the layout of the incident site. The folder contains extra sheets and lists. The RIT Commander can also provide the driver responsible for setting up equipment staging area with a sheet highlighting the necessary equipment to retrieve from the truck.

Contents of the file:

From the IC: nature of incident, how many firefighters are working inside, their location and names, communication channels in use, entrances to the building, other critical details.

Object reconnaissance: levels (basement, floors, roof), entrances to the building (doors, gates, staircases), windows (grates), ladders, structure and surface of the building.

Radio channels in Warsaw (in different area units have their own channels, so when RIT is deployed – they know which frequency to use).

JRG	ARG	KRG	11	1	B004
1	5	B046	12	7	B049
2	3	B039	13	7	B049
3	3	B039	14	4	B041
4	2	B035	15	6	B047
5	6	B047	16	3	B039
6	1	B004	17	4	B041
7	2	B035	APoż	1	B004
8	7	B049	Wislą	AKCJA 6	B050
9	4	B041	Metro1	XX	xx
10	5	B046	Metro2	XX	R05

Equipment to be taken upon arrival: large TIC, small TIC (Seek), RIT identification covers, 2 × 60 m Polaris Courant rope, 160/180 centimeters webbing loops, flares.

Basic equipment: 2 RIT bags, 2 × demolition equipment, mat, 2 × 30 m rescue ropes, 2 × hose suitcases, nozzle, 75/52 switch, hose.

Ladder method: ladder bag (30 m rope, webbing loop, carabiner), extension ladder.

Basement window method: board, ladder, rescue rope.

Other: saws, Holmatro hand-held combi tool, bolt cutters, paramedic bag, twin cylinder SCBAs.

9. RIT EQUIPMENT

Not all equipment listed must be placed in the equipment field. The RIT commander determines what is necessary for each situation.

9.1 Equipment field:

Equipment to be worn upon arrival: Large TIC, small TIC, RIT covers, 2 × 60 meters Polaris rope, 160/180-centimeter webbing loops, flares (kept in pocket), RIT commander's briefcase.

Basic equipment: 2 RIT bags, 2 × demolition equipment, mat, 2 × 30 m rescue rope, hose suitcase, nozzle, hose.



Photo: Basic equipment

Ladder method: ladder bag (30 m rope, webbing loop, carabiner), extension ladder.



Photo: Ladder Method Equipment

Basement window method: board, ladder, rope.

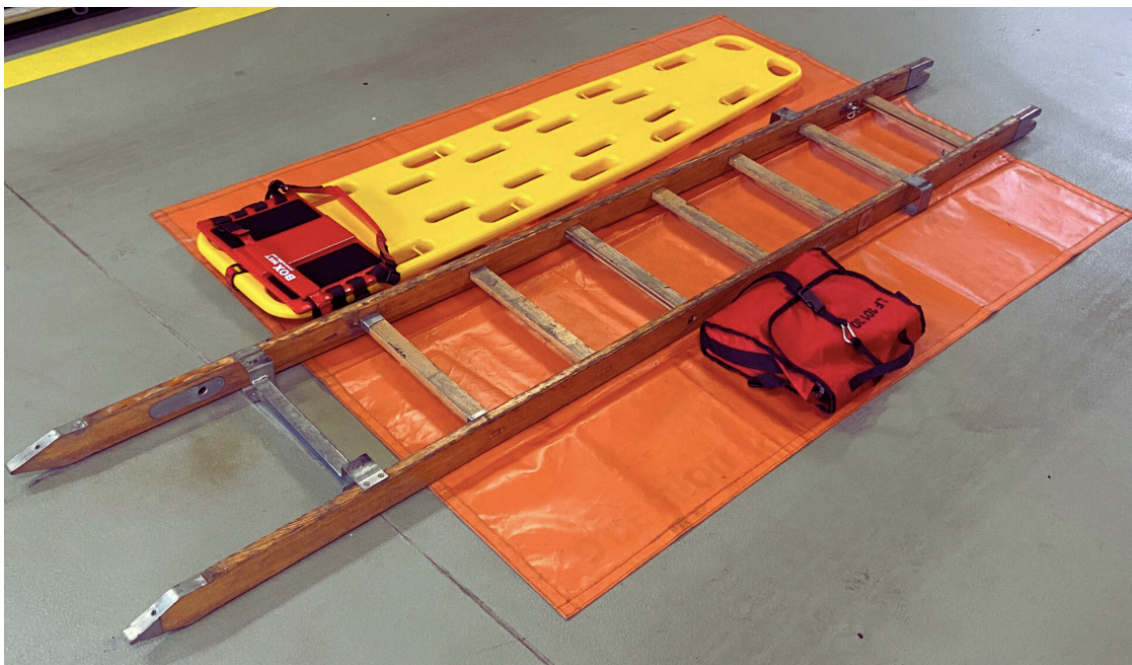


Photo: Equipment for the basement window method

Other: saws, bolt cutters, paramedic bag, twin cylinder SCBAs.

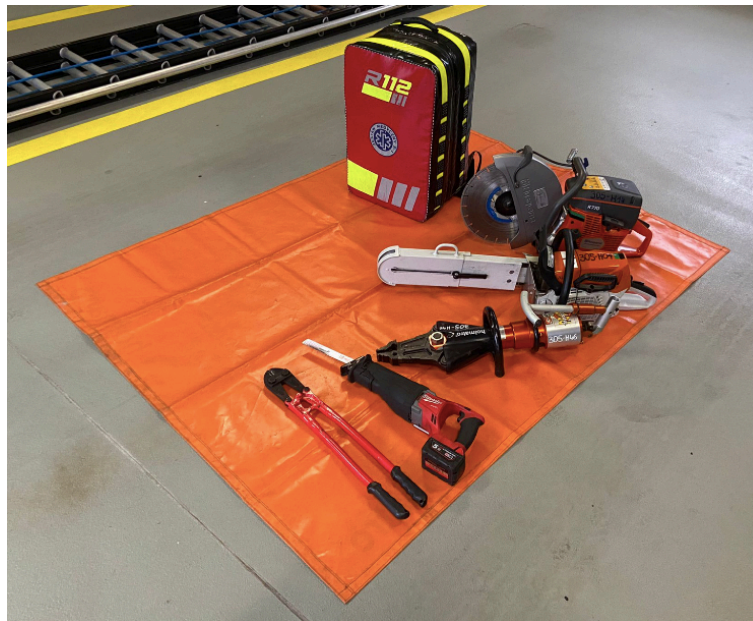


Photo: Other Useful Equipment

Examples of firefighter equipment:

Unit 1:

RIT commander: thermal imaging camera, flares in pocket

Rescuer 1: RIT bag

Rescuer 2: demolition equipment, 60 m Polaris rope

Unit 2:

Rescuer 3: RIT bag, small thermal imaging camera

Rescuer 4: demolition equipment, 30 m rope, flares in pocket

Driver: work time board

Note: in case of fire hazard, the rescuer instead of the rope takes the hose suitcases.

9.2 Webbing loops

Two types of webbing loops are essential for evacuation methods. Firefighters should equip themselves with these loops immediately upon arrival at the incident. This saves time and reduces the risk of entanglement when assisting the injured person.

9.2.1 Webbing loops 160/180 centimeters

The 2.5 centimeters wide and approximately 180 cm long webbing loops with an additional 160 cm knot for length adjustment. You can also change the fastening during the evacuation in case of discomfort. 160 and 180 cm are average lengths - with a personal strap, you should adjust it to your own preferences.



Photo: 2.5 cm webbing loop with an additional knot

9.2.2 Webbing loops Rhinovac V2

The main advantage of the webbing loop is the possibility of adjusting the length. However, it must be properly set up before incident, because if it is not, it will extend under the pressure of the injured person. With two carabiners in the webbing loop, you can attach them into the holes in the injured persons SCBA, which allows you to lift them higher. It may be difficult to fasten the carabiners when visibility is poor and the injured person is pressing on the SCBA, so you can also catch this webbing loop under the shoulder straps, like 160/180.



Photo: Rhinoevac V2 webbing loop



Photo: Attaching the carabiner to the SCBA hole

9.3 Flares

There are two types of flares for use: blue and orange. Blue flares are used to mark casualties and the RIT bags. Victims may be disoriented - the flares make it easier to control their location.



Photo: Blue flare on RIT bag



Photo: Blue flare on the injured

Orange flares are used to mark characteristic points when reaching the injured person, e.g. floor, stairwell entrance, turns.



Photo: Orange signal disc

9.4 RIT identification covers

The covers are placed on the SCBA upon arrival at the incident so that the IC has an overview of the forces and resources to be engaged.



Photo: RIT identification covers

9.5 Twin cylinder SCBA

In incidents where reaching the injured person requires a large supply of air, you can use the twin-cylinder SCBA located on the special air truck, which is available for large-scale incidents.

Such situations include:

- large spaces (e.g., halls, parking garages,
- tall buildings,
- any other situation where it takes a long time to reach the injured person.

9.5 Polaris rope 60 meters

When using the rope, rescuer that the last person in the group has it attached. This will prevent tangling. After reaching the casualty, securing the rope can make the return easier, but it is not necessary. The rope is used in a configuration of three beads leading to the threat/casualty and one bead marking the exit. When leaving, the RIT commander decides whether it is more effective for him to hold onto the rope while leading the team out or to follow it visually, reducing the risk of entanglement.



Photo: The last rescuer has a rope attached, the rest are connected by automatic rollers (Autoroll V6 MAX)



Photo: Example of a rope bag attached to a firefighter's leg. One strap is secured to the hip belt, with two additional straps fastened around the leg.

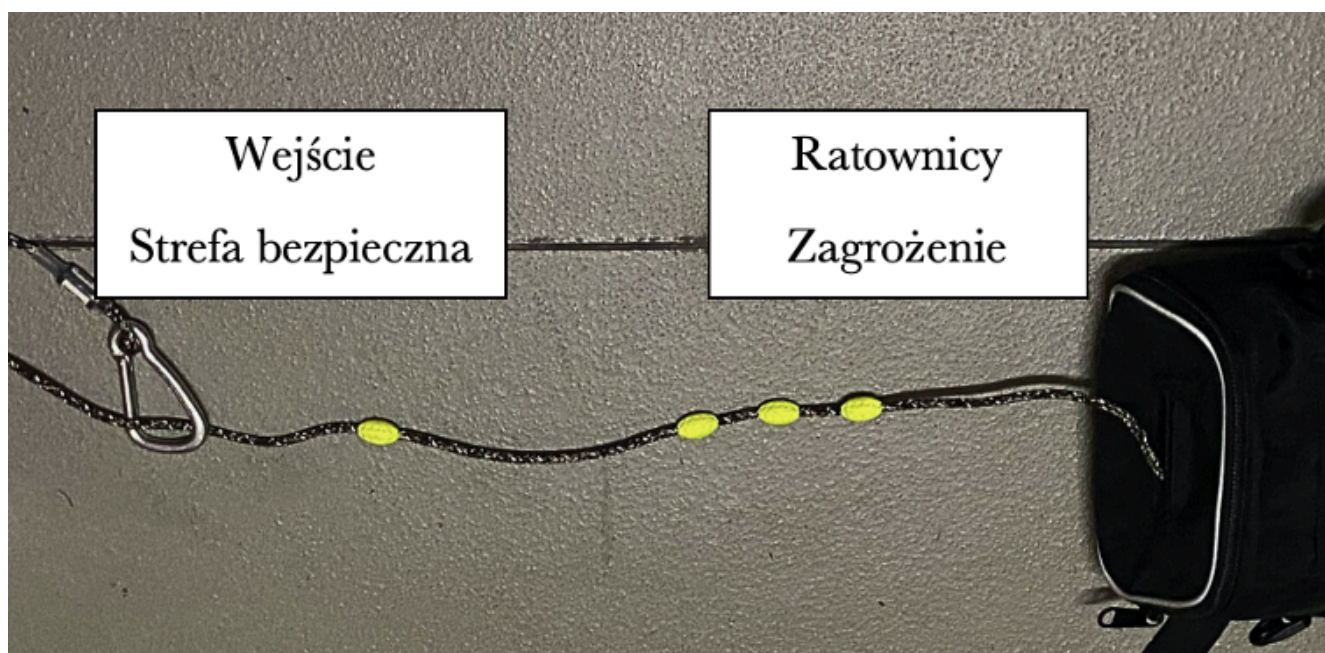


Photo: The one bead to the exit, while three beads to the injured person/fire

9.6 Gloves

If the conditions allow you to perform an operation on the injured person without gloves is recommended, as it makes the task much easier. To keep gloves accessible, hook them into the cuffs off your sleeves.



Photo: Gloves hooked into the cuffs of the sleeves

10. RIT BAG



Photo: RIT bag with equipment

Equipment in the RIT bag: mask with regulator, divider, long air supply hose with cylinder, 160 and 160/180 cm webbing loops, carabiners, flares, keys to motionless firefighter alarms, tourniquet, bandage, scissors, rescue hood.

11. TASKS AFTER REACHING THE INJURED PERSON

1. Quick report – “This is unit 1 RIT, I have reached the injured person, information for a moment”.
2. Turning off the motionless firefighter – if necessary – use the key to deactivate the sensor.
3. Assessing the injured person’s condition (1. Is he breathing? The command “SILENCE” and listen. 2. Is he conscious? What happened, are there any major/visible injuries?).
4. Checking the SCBA (1. Air supply level 2. Regulator – does it admit air when pressed? 3. If there is no air, check whether the valve is closed).
5. Deciding whether to switch the air supply and determining the evacuation method.
6. Reporting to the IC - including the need for support, replacement, extra air supply, etc.
7. Preparing for evacuation.
8. Informing the IC about the evacuation.
9. Executing the evacuation.

12. AIR SUPPLY MANAGEMENT

Air exchange can be done in three ways. First, we choose a quick connection via air supply hose or mask exchange, depending on the circumstances.

12.1 Quick connection via air supply hose

The injured person's regulator is connected to a divider using a quick-connect air supply hose. This is the preferred method if the firefighter's SCBA is still operational.

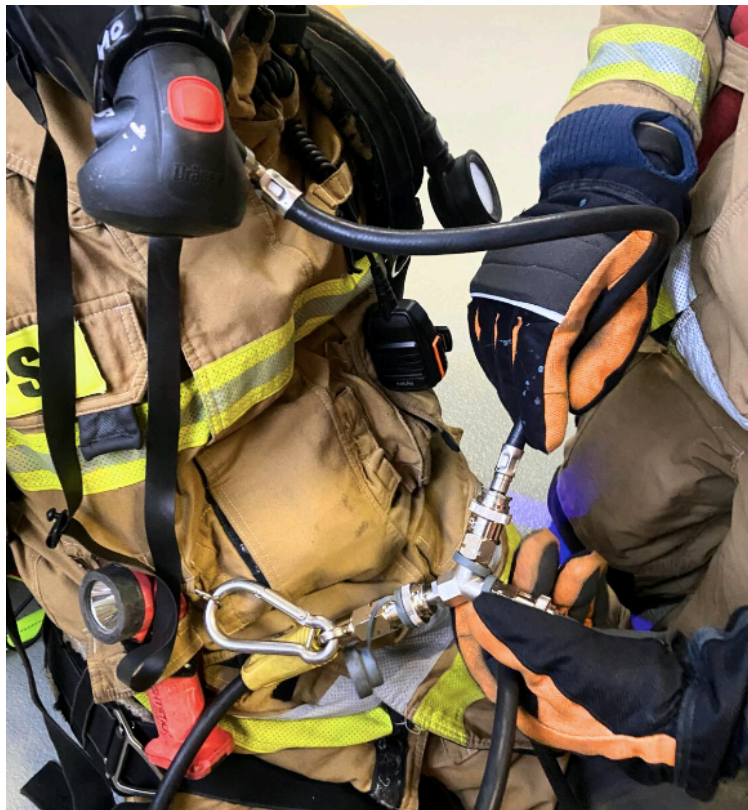


Photo: Connecting the injured person's mask with a quick switch

12.2 Mask replacement

The material (not plastic) cover of mask makes it easier to place it on the injured person. During evacuation, if the return route is assessed as safe, you may skip putting

the helmet and balaclava back on to save time. The mask straps must be pulled tight. This is a challenging procedure that requires practices.



Photo: Injured firefighter wearing a mask

12.3 Rescue Hood

The advantage is that it is easy to put on the injured person. The disadvantage is the continuous airflow guarantees that the air will run out after a certain time (about 35 minutes) and the air rate of 50 l/min, but firefighters may use much more under heavy exertion.



Photo: Rescue hood on the injured person

A divider is connected to the air supply hose. In an emergency, it allows two firefighters to share a single air source

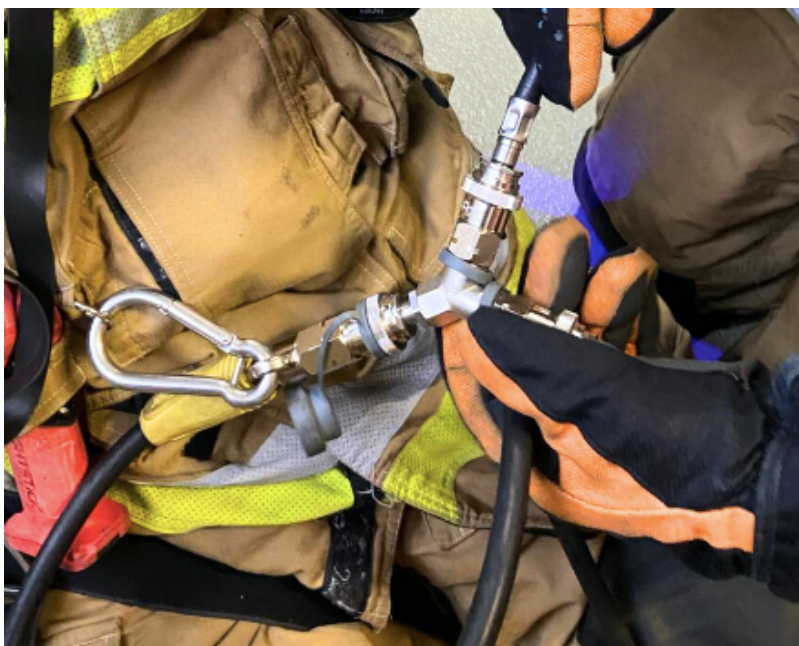


Photo: Divider

If you need more information, send an email to: wojciechg99@gmail.com

