

**BAS  
5A**

First Response Unit

**First on scene**



# A step ahead

**When an emergency happens getting to it quickly is a priority. Because then, lives can be saved. First Response Units (FRUs) make safety work and emergency response operations more efficient.**

**Everyone who works with safety and on emergency response operations asks the questions, “How can we become more efficient” “How can we use our resources better?” “How can we create a safer society with fewer emergencies and injuries?”**



The answer of course is through new thinking, being a step ahead, and using resources better.

The First Response Unit (FRU) concept provides a modern emergency response service. It consists of a fully equipped response vehicle and a crew of two firefighters. This new concept puts the focus on the person in distress via speed, flexibility, and efficiency. Thanks to new methods, cutting edge technology, and new tactical thinking we can

substantially improve emergency preparedness.

At the same time safety work can be made more efficient, working environments for responders improved, and the opportunities for equality in the fire service increased.

FRUs offer a comprehensive concept for firefighting operations, road traffic accidents, life saving, first responder medical care, medical alarms, and municipal preventive safety work.



# Pro-active thinking results in safer municipalities



**11:45**  
Demonstrations for 11 year-olds.



**13:41**  
Fire safety training at the municipal offices.

FRUs facilitate pro-active thinking both with regard to municipal safety work and the efficiency of emergency response operations. It's about being a step ahead during response operations as well as prevention work. With the BAS 5A vehicle, which can be driven on a standard car driver's licence, the crew is always ready to respond – whether they are at the station or working with preventive safety somewhere in the municipality. This means that part of the base for the fire service has been moved out of the fire station and has become mobile. For those municipalities that only have part-time firefighters FRUs can re-

main with the part-time firefighters at work or at home. Because of their mobility FRUs can be used effectively in the daily work of creating safe and secure municipalities. Prevention work, such as supervision, and information for workplaces and schools is combined with always being ready to respond to an emergency; and as such the role of the fire service is broadened. By always being reachable via the MDT (mobile data terminal) the crew are kept informed of emergency calls and are piloted by GPS along the quickest route to the incident location.

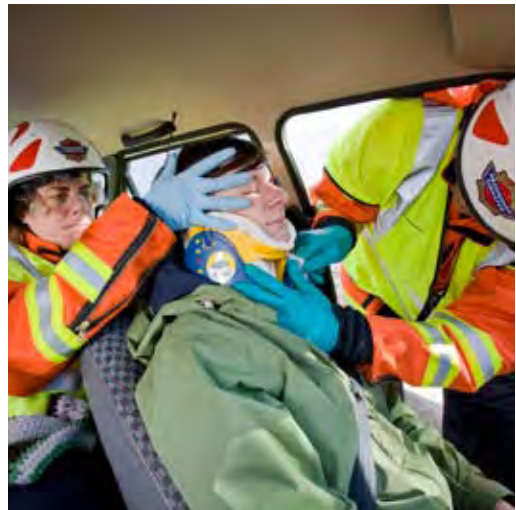


**14:15**  
Command support at a fire in a truck carrying dangerous goods.



**17:20**  
Emergency response to a drowning incident.

**Quick, flexible, efficient. On an emergency call-out FRUs are piloted by GPS along the quickest route to the incident location.**



## FIVE AREAS

### 1. FIRE

At fires the focus of FRUs is on being able to extinguish both internally and externally. To achieve this FRUs are equipped with the cutting extinguisher concept, which includes the following:

1. Decision & command support system Paratus – which works in a GIS environment and can be loaded with, for example, the SRSA's applications for command support, namely, RIB, Lupp and Riskera.

2. IR technology – buildings can be scanned using thermal imaging cameras. The scanned image is then used as data for an operational decision. These two tools form a unified system for assessing the situation.

The concept includes the use of IR technology, warning and alerting, communications between the operational firefighters and commanders, and information and decision support.

When the position of the fire has been identified, the cutting extinguisher is used, which, with high pressure water mixed with an abrasive, can cut through walls, floors and roofs. Extinguishing can then commence using a water mist. This means that firefighters don't need to be sent into a building during the initial stages of the extinguishing operation, thus reducing hazards to personal safety. On completion of the cutting extinguisher operation and IR building-scan an assessment is made regarding entry of the building. If the decision is to enter then the positive pressure ventilation (PPV) system is employed, using the PPV fan. The fan can also be used in a tactical role, when placed in an adjoining space to create positive pressure and thereby prevent the spread of fire and smoke.

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### 2. ROAD TRAFFIC ACCIDENT (RTA)

During RTAs the primary role of FRUs is to get on scene quickly and commence emergency care of casualties. To maximise efficiency FRUs are equipped with medical care equipment, and a number of lightweight, power tools used to gain access to casualties. The aim is to support vital functions until the arrival of an

ambulance and medical personnel.

In this context Paratus can be loaded with the CrashCard program, which can provide all the characteristics of the crashed vehicle so that first responders can avoid causing any further injury to casualties and themselves.





## FIVE AREAS

### 3. LIFESAVING

For lifesaving operations FRUs are equipped with specific lifesaving equipment, for example, rescue lines, dry suits, and self-inflating life-boats.

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### 4. FIRST RESPONDER MEDICAL CARE AND MEDICAL ALARMS

More and more local health authorities are using the fire service to respond to emergency medical calls. In situations where the fire service is in a position to make contact with the casualty quicker the chances of saving lives are good. The application of care as soon as possible is of vital importance for a better result while waiting for an ambulance and emergency medical treatment. FRUs

are therefore crewed by personnel trained in emergency medical care and the unit carries all the equipment necessary to enable them to provide professional first responder medical care.

For FRUs to respond to medical alarms requires that the fire service has a service agreement with the local health authority.

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### 5. MUNICIPAL SAFETY WORK

FRUs can also be an important part of daily municipal safety work. And can be used for municipal supervision work, for training at schools and in the workplace, and for those doing hot work (e.g. welding). Because FRU vehicles and crews are never far apart the units are always ready to respond to call-outs. In municipi-

palities that have part-time fire brigades, a number of strategically placed FRUs can considerably increase the capacity for fast emergency responses. The option for fast responses also increases the efficiency of the use of resources and entails a much more flexible solution for municipalities.



The FRU carries the most advanced equipment currently available.

**MOUNTED EQUIPMENT**

- Tank for extinguishing agent - 240 litres
- Cutting extinguisher plant
- Tank for abrasive - 20 litres
- Holder for 2 x 10 kg (5 litres) plastic drums for abrasive
- Hose reel for the cutting extinguisher
- Handheld lance for the cutting extinguisher
- Holder for laptops

**COMMUNICATIONS AND COMMAND SUPPORT**

- Laptop
- Communications radio, Aurora, Rakel, or similar
- Command system, with touch screen, navigation function via map and voice, GPS data, text messaging, and status panel

**FIRE**

- PPV fan with accessories
- Handheld fire extinguisher. Powder - 12 kg
- Foam container/foam extinguisher, approx. 12 litres, for medium or heavy foam
- BA (breathing apparatus) according to individual brigade standards
- BA comms. radio
- IR camera. The camera should be able to scan a building and store and transfer images

**RTA**

- Cordon tape
- Seatbelt & clothes cutting knife
- Crowbar
- Battery-powered hydraulic tools. Module system containing:
  - Motor pump with a 1m flexi-hose and quick coupling, max. weight 5 kg
  - Jaws of Life, effect at jaw points 4 ± 0.2 ton. Max. weight 6 kg

- Cutters, cutting effect 10 ± 1 ton  
Max. weight 4.5 kg
- Pedal cutters, cutting effect 8 ± 1 ton
- Battery charger and extra batteries
- Torches for traffic control
- Portable signs with text: Accident
- Stretcher for lifting casualties out of vehicles
- Scoop stretcher

**LIFE SAVING**

- Rescue line 250 m x 6 mm diameter
- Self-inflating rubber rafts
- Dry suits
- Self-inflating life-jackets
- Ice prods

**MEDICAL ALARMS/ FIRST RESPONDER MEDICAL CARE**

- First aid bag
- Defibrillator
- Oxybox, 4 litres
- Pulse oximeter, TuffSat
- Examination gloves
- Scissors
- Pocket mask
- Sterile dressings for burns
- Protective blankets
- Hot packs
- Cervical supports
- Thermal blankets
- Vacuum splints

**MISCELLANEOUS EQUIPMENT**

- Telescopic ladder, at least 3 m
- User handbooks, checklists
- Detection equipment

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A complete detailed description of the technical specifications for the BAS 5A FRU can be found at [www.raddningsverket.se](http://www.raddningsverket.se)

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