



Interaktives Lernprogramm für Arbeit und Rettung in absturzgefährdeten Bereichen
e-RESCUE
Interactive training program for work and rescue in fall endangered areas



AG Training / WG Ausbildung

Draft

Definition of the skills necessary for the **Course for Instructors, "Special Rescues from Heights and Depths (SRHT)**

Permanence of training (education): 80 hours

Aim of training (training target): The member of the course must

- be able to lead independent tactical units for Special Rescue from Heights and Depths (SRHT)
- be able to prepare, lead, proceed and evaluate theoretic and practice instruction
- be able to value possibilities of intervention, devices and techniques of SRHT
- be able to give an judgement and endangerment analysis for special objects

Emphasis of the training (key course element):

- Laws and regulations, rules of security, keeping of proofs
- Theory of instruction (preparation, realizing, evaluation)
- Organisation of standard and further instruction
- Training of different intervention and exercise options
- Elaboration of intervention tactics
- Be able to realize and react to nearly accidents, accidents and other extreme situations in training and intervention
- Analyses and discussions after incidents
- Analyses of dangers
- Accommodation to altitude, techniques of belay
- anchor points/ fixing points
- theory of knotting, ropes, devices, control of materials
- techniques of ascending and descending, lead climbing
- techniques of rescue operation (response)/possibility of rescue operation (response)
- fundamental rescue variants, evacuation of persons (technical rescue)

e-RESCUE – WG TRAINING - AG AUSBILDUNG

Fähigkeiten Ausbilder Höhenretter/ skills Trainer of special rescuers

Prerequisites (conditions):

- completed basic training in "SRHT" or mountain rescue,
- completed education to leader of a group and certificate to be instructor
- minimum 1 year practical experience as special rescue man (72 hours)
- qualification to do first medical care

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
1.	Theory				
1.1	Opening the training	1	<ul style="list-style-type: none"> • Know content, characteristics and target of the training 	<ul style="list-style-type: none"> • Introduction of the course-members • Introduce the content and the characteristics of these training 	Lecture Training discussion
1.2	Examination of knowledge	1	<ul style="list-style-type: none"> • get down to the already known subjects of the basic training SRHT 	<ul style="list-style-type: none"> • Investigation of the existing stand of knowledge (starting situation) 	Writing examination For preparation e-learning is suggested
1.3	Main terms/Definitions physical basics	2	<ul style="list-style-type: none"> • Be able to know, explain and describe the definitions and terms of SRHT 	Fall factor, Impact force, Protection against fall (AS), Special rescues from heights and depths, physical basics	Training discussion e-learning
1.4	accident prevention regulation	2	<ul style="list-style-type: none"> • To know and master accident prevention regulation/ is able to transfer to new situations • be able to derive measures from the accident prevention regulations 	<ul style="list-style-type: none"> • General behaviours during the training/incident • Behaviour in special situations • Handling with the equipment • Making out written proof of information • EU-regulations concerning the SRHT and national regulations/laws 	Training discussion
1.5	Laws and regulations		<ul style="list-style-type: none"> • Be able to explain and describe foundations of laws • be able to apply and use the contents of the norms 	<ul style="list-style-type: none"> • Odds and indications of the manufacturer • Acknowledged rules of technique • EU-regulations concerning the SRHT and national regulations/laws 	Training discussion

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
1.6	anchor points/fixing points	1	<ul style="list-style-type: none"> • be able to judge the fixing points at an object and value it • be able to derive measures to guarantee safe fixing points 	Fixing points: <ul style="list-style-type: none"> • kinds • damaging factors • Possibilities of additional belay (anchors...) 	Training discussion Multimedia e-learning for self test
1.7	Making out proofs	1	<ul style="list-style-type: none"> • be able to make out the usual proofs independent and value them 	<ul style="list-style-type: none"> • Proofs of the stock (devices and materials) • Proofs of expert competence, proofs of examinations • Proofs of personal qualities 	Training discussion e-learning
1.8	Material and tool science	2	be able to <ul style="list-style-type: none"> • declare and describe material and tools of SRHT • do maintenance according to the norms/ regulations, knowledge of the proof of service • recognize defect tools • judge the end of the capacities of devices and materials and derive measures 	<ul style="list-style-type: none"> • belt/full body harness • textile material (sling ..) • rope braking device • descending and rescue device • other tools • technical data • purpose of employment • Maintenance/ service / elimination • Odds and indications of the manufacturers • To tear ropes • Fall experiments 	Training discussion Teamwork e-learning Experimental tests

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
1.9	knots	1	Be able to <ul style="list-style-type: none"> • declare different knots and describe the use • know fundamental principles by making and using knots • know the end of the capacity of knots and value them 	<ul style="list-style-type: none"> • possibility of use • kinds of knots <ul style="list-style-type: none"> ○ Clove hitch ○ figure of eight knots ○ Thumb knot/ overhand ○ tape knot ○ larks foot ○ prusik knot ○ Fishermans ○ italian hitch ○ blip knot 	Training discussion Teamwork e-learning
1.10	Preparation, procedure, evaluation of an instruction unit	2	<ul style="list-style-type: none"> • Be able to plan independent an instruction unit and organise it • Be able to carry out inde-pendent an instruction unit • Be able to value independent an instruction unit and evaluate it • Be able to give feedback and work with it 	<ul style="list-style-type: none"> • Preparation: <ul style="list-style-type: none"> ○ personal ○ organizational ○ material ○ personnel/staff • Carrying out: <ul style="list-style-type: none"> ○ personal ○ organizational ○ material • Evaluation <ul style="list-style-type: none"> ○ Auditing afterwards ○ Control of the equipment 	Training discussion Teamwork
1.11	Introduction/assign of exercise objects	2	<ul style="list-style-type: none"> • Be able to plan an instruction unit in writing and introduce it (conception) • be able to transfer the contents given by odds to an exercise and execute it 	<ul style="list-style-type: none"> • Introduction of exercise objects • Making an own written conception for an day of exercise at a given object • Adding and adapting given practice instruction contents into exercise • Organisation of standard and further instruction • Introduction of the conception 	Training discussion Teamwork Working with a partner Multimedia

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
1.12	Options of rescue	2	<ul style="list-style-type: none"> • Be able to transfer the standard rescue option to similar situations and practise them • know special rescue options and be able to transfer them to similar situations 	Basic rescue options: <ul style="list-style-type: none"> • Rescue from the deep • Rescue from the height • Rescue of persons out of the rope • Lead climb • Rescue of persons with cable way Special rescue options: <ul style="list-style-type: none"> • windmill power stations • crane • High rise building • Confined space 	Training discussion Multimedia
1.13	Leading during the SRHT intervention / particularities at the intervention of SRHT	2	<ul style="list-style-type: none"> • To recognize hazard situations and value them • Transfer it to similar situations 	<ul style="list-style-type: none"> • Leading process at the example of a SRHT intervention • Behaviour in special situations • Misbehaviour caused under stress • fall, rupture of the rope, getting jammed • loss of radio communication, weather • examples in intervention praxis 	Training discussion
1.14	suspensionstrauma	1	<ul style="list-style-type: none"> • Be able to know the special problems of suspensions-trauma and value them 	<ul style="list-style-type: none"> • Reasons • Recognizing the symptoms • Rescue • First measures 	Training discussion Teamwork
1.15	News of SRHT	1	<ul style="list-style-type: none"> • be actually and current informed of all subjects of SRHT 	<ul style="list-style-type: none"> • New devices and techniques • Interventions • Nearly accidents, literature 	
1.16	Hazard analysis/ risk assessment	2	<ul style="list-style-type: none"> • Carry through an expert endangerment analysis and derive measures for the intervention • Be able to recognize and value risks and derive measures 	<ul style="list-style-type: none"> • To value common risks of interventions in areas with the risk of fall • Important dangers and risks (localities, exhaustion, electricity, rays) • Example of a description and evaluation of a situation with risk 	Training discussion

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
1.17	Theoretic examination (in addition to 2.6)		<ul style="list-style-type: none"> To produce/ present a written conception for an instruction day at an fixed object 	<ul style="list-style-type: none"> Preparation, procedure and evaluation of an instruction in SRHT 	Specimen of instruction
1.18	Written examination	2		<ul style="list-style-type: none"> 90 min. examination 	e-learning in addition to preparation of examination
1.19	evaluation	1		<ul style="list-style-type: none"> Feedback Distribution of the certificates 	Training discussion
2.	Practice instruction				
2.1	Knot training	2	<ul style="list-style-type: none"> Be able to control and use knots in each situation and be able to explain them 	<ul style="list-style-type: none"> Demonstration of the knots Knot training under less favourable conditions <ul style="list-style-type: none"> With a band on the eyes With one hand, hanging On the back 	Practice instruction PU 1-4
2.2	Control of materials / tools	1	<ul style="list-style-type: none"> Be able to make an expert control off the equipment of SRHT and judge/ value it 	<ul style="list-style-type: none"> Control of the whole equipment of the members of the course 	Practice instruction PU 1-4
2.3	Knowledge of material/ tools	3	<ul style="list-style-type: none"> Be able to explain and describe the function of the materials and tools of the SRHT Be able to control and value the maintenance service of the equipment 	<ul style="list-style-type: none"> Personal protection equipment Ropes, slings, roles rope braking device and carbines devices for belay and descend stretches and other tools examination or material and tools 	Practice instruction PU 1-4
2.4	Practice instruction and examination of performance	5	<ul style="list-style-type: none"> Be able to have command over the kinds/ methods and techniques of belay and use them Be able to have command over the construction of the carrying system and correct use Have command over the possibilities of fixing/ fastening 	<ul style="list-style-type: none"> Construction of descending systems (active, passive, ...) Search and choice of fixing points Anchor points and possibilities Training of different exercise elements (rising at the rope under less favourable conditions, casualty pulleys systems, to catch a fall, ..) 	Practice instruction PU 1-4 Station training

Nr.	Theme / content	Hours	Main learning target the member of the training shall..	Training contents	Training methods
2.5	Practice instruction at objects	14	<ul style="list-style-type: none"> • Be able to recognize the special problems at different objects • Be able to proceed intervention exercises at that objects • Be able to proceed and explain the leading of a rescue group in case of incident professional correct and independent • Be able to value and evaluate results professionally 	<ul style="list-style-type: none"> • Analysis of endangerment/ judgment of risks • Intervention exercises (employing the tactical basic variants) • Changing to an other rope/ prolongation of the rope • Rescue with stretchers • Approaching of remote points • Different sceneries of exercises with various difficulties • Additional unexpected situations to manage in an exercise 	Practice instruction PU 1-4 Station training Incident exercise
2.6	Practice instruction at different objects following presented conceptions (crane. transmitter towers, shaft, high rise building,...)	28	<ul style="list-style-type: none"> • Be able to lead and proceed an instruction professional correct and independent and explain it • Be able to value suddenly appearing problems and react on it 	<ul style="list-style-type: none"> • Introduction, procedure and evaluation of the instruction according to presented conceptions • Tactical basic intervention possibilities • Rescue exercise wit stretchers • Construction of various rescue possibilities in teamwork • Special intervention situations • Analysis of endangerment/ evaluation of risks 	Specimen of instruction Practice instruction PU 4 Station training Incident exercise
2.7	Practice examination (in addition to 2.6)		<ul style="list-style-type: none"> • Be able to proceed and explain the different possibilities of SRHT professional correct • Be able to make an danger analyse professional correct and to derive the measures for the incident • Be able to judge/ value the possibilities of invention and to have command over them in every situation 	<ul style="list-style-type: none"> • 90 min each person • Introduction, procedure and evaluation of an instruction (SRHT) following after a presented conception 	Specimen of instruction Practice instruction PU 4
	Total theory/practice	27/53			
	total	80			

The wording of the main learning target were taken over from the fire-brigade regulation 2 (see attachment).

Level of training target (training aim stages) in the realization range (source: FwDV 2)

Within the fore mentioned training aim ranges there are 4 different Levels of training targets (training aim stages)

- Level of training target 1 **knowledge,** in the sense of "being able to name"
- Level of training target 2 **understanding,** in the sense of "being able to describe and/or explain with own words"
- Level of training target 3 **practise,** in the sense of "being able to transfer anything witch was understood once to similar situations"
- Level of training target 4 **evaluation,** in the sense of "being able to value and justice new situations, the value of material, methods and procedures for certain situations"

For reaching the respective Level of training target (training aim stages) following methods of instruction are necessary:

LTT:	target	Method of instruction	wording
LTT 1:	knowledge	Minimum lecture Training discussion if there is enough time	- must be able to name, - must be able to show/ reproduce
LTT 2:	understanding	Training discussion Work in team/ with partner	-have to be able to explain, -have to be able to describe
LTT 3:	Use/ practise	Work in team/ with partner exercise, exercise with divided parts, Specimen of instruction	Have to be able to transfer and to use to similar situations the subjects with were taught
LTT 4:	evaluate	Work in team/ with partner exercise , exercise with divided parts	- must be able to judge the subjects with were taught, - must be able to derive measures

Level of training target (training aim stages) in the action / behaviour range (source: FwDV 2)

If the aim of the training is in the range of action/behaviour, there are also 4 different Levels of training target (training aim stages)

Level of training target 1	Imitation,	in the sense of "being able to do activities and handle the same grips, which are demonstrated by the instructor " (However it can never be the purpose of fire-brigade training, that the course participant can only copy activities!)
Level of training target 2	Independent acting,	in the sense of "being able to independent proceed of activities"
Level of training target 3	Precision,	in the sense of "being able to do activities not only independent and correct, but beyond that briskly and accurately"
Level of training target 4	Automation of action,	in the sense of "being able to do activities in every situation fast, without error and absolutely safe"

For reaching the respective training aim stages methods of training the following specified methods of instruction are necessary:

LTT:	Target	Method of instruction	wording
LTT 1:	Imitation	Practice instruction	must be able to copy actions
LTT 2:	Independent acting	Practice instruction (PU step 3*) Station training	must be able to accomplish or proceed entirely courses of action without instructions ;
LTT 3:	Precision	Practice instruction (PU step 4*) Station training	must be able to accomplish and explain technically correctly and independently entire courses of action s
LTT 4:	Automation of action	Practice instruction (PU step 4*) Station training Operation exercises Exercises on model	must be able to have command over courses of action in every situation