

PRAT®
Professional Rope Access Technician.

PRAT® Certification Requirements

**and -procedures
& Safe Practices.**



**PRAT® Certification -Requirements
and -procedures
& Safe Practices.**

PRAT® Certification -Requirements and -procedures & Safe Practices.

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PRAT®

Certification -Requirements and -procedures & Safe Practices.

1. Overview:

There are two certification levels for PRAT® rope access technicians:

- a. - PRAT® Worker
- b. - PRAT® Supervisor.

Also there are two levels for Instructors/Evaluators.

- c. - PRAT® Instructor.
- d. - PRAT® Evaluator.

2. PRAT® Worker

A PRAT® Worker is certified to do most rope access work, including rigging multipoint anchors and lowerable systems.

A PRAT® Worker is also certified to do a number of rescues of an injured colleague.

A PRAT® Worker is being certified to a level equal to at least level II (Technician) in other rope access systems, eg. IRATA or SPRAT, level II.

To be certified as a PRAT® Worker, the minimum age required at certification day is 18 years.

Also the candidate must show a valid certificate for basic CPR and first aid (at least 6 hours).

Validity of the PRAT® Worker certification is 3 years.

To renew and uphold the PRAT® certification, the PRAT® Worker certification either has to be renewed by a successful PRAT® Worker evaluation or it has to be upgraded to a PRAT® Supervisor certification by a successful PRAT® Supervisor evaluation.

3. PRAT® Supervisor:

A PRAT® Supervisor is responsible for site safety, job hazard analysis, risk assessment, rescue plan and communications.

A PRAT® Supervisor is certified to do all kinds of rope access work, including rigging and all relevant rescues of an injured colleague.

A PRAT® Supervisor is also certified to supervise all kinds of rope access work, including doing risk assessments and Job Hazard Analysis for any rope access job.

A PRAT® Supervisor is being certified to a level, equal to at least level III (Supervisor) in other rope access systems, eg. IRATA or SPRAT, level III.

To be certified as a PRAT® -Supervisor, the candidate must hold a valid PRAT® Worker certification.

Also the candidate must have a valid extended first aid certificate (at least 24 hours).

If the first aid certificate is not available on certification day, the candidate must send a signed copy of it to the responsible Evaluator, so it is available to the evaluator no later than six months after the certification.

There is no requirement for any specific number of logged, documented rope access work hours or experience to become a certified PRAT® Supervisor.

However the certification requirements, regarding both knowledge, proficiency, skills, experience and not least routine etc. are considerably higher for the PRAT® Supervisor certification.

The PRAT® -Supervisor evaluation is thus intended and made to prove, if the candidate has the necessary experience, and it is thus not possible to pass evaluation as PRAT® Supervisor without substantial rope access work experience.

Validity of the PRAT® Supervisor certification is three years.

To renew and uphold the PRAT® Supervisor certification, it either has to be renewed by a successful PRAT® Supervisor evaluation or by participating in and passing the annual PRAT® -TMA (Training, Maintenance and Approval) meeting. If participating in and passing this meeting, the PRAT® Supervisor can uphold a valid PRAT® Supervisor certification for one more year.

4. PRAT® Instructor.

To apply to become a PRAT® Instructor, the candidate must apply to and be approved as such by PRAT® on: info@prat.cc.

To become and to uphold certification as Certified PRAT® Instructor, it is required to have a valid PRAT® Supervisor certification.

Furthermore, the candidate is required to run (as Instructor on trial) at least two individual PRAT® Evaluation sessions with at least three candidates at each Evaluation session.

At least one of these candidates must be a PRAT® Supervisor candidate.

Each of these PRAT® Evaluation sessions must be led by an approved PRAT® Evaluator.

In both instances, the PRAT® Instructor candidate then acts as the other Instructor/Evaluator at the same time as being evaluated for PRAT® Instructor himself by the PRAT® Evaluator, responsible for the PRAT® Evaluation.

The PRAT® Instructor certificate has a validity of maximum one year or until the expiration of the PRAT® Supervisor certification.

The PRAT® Instructor certificate must be upheld by participating in the annual PRAT® -TMA-meeting after the PRAT® Instructor certification.

5. PRAT® Evaluator.

To apply to become a PRAT® Evaluator, the candidate must apply to and be approved as such by PRAT® on: info@prat.cc.

To become and to uphold certification as Certified PRAT® Evaluator, it is required to hold a valid PRAT® Instructor certification.

Furthermore, the candidate is required to run (as Evaluator on trial) at least one more (not including the two, that was required to become PRAT® instructor) PRAT® Evaluation session with at least three candidates at each Evaluation session. At least one of these candidates must be a PRAT® Supervisor candidate.

This Evaluation session must be run under supervision and responsibility of a certified PRAT® Evaluator and later approved by this Evaluator.

The PRAT® Evaluator candidate's understanding of the PRAT® Certification Requirements and the candidate's way of running the PRAT® certification session has to be approved by the PRAT® Evaluator, responsible for the evaluation session.

The PRAT® -Evaluator certificate has a validity of maximum one year or until the expiration of the PRAT® Instructor certification.

The PRAT® Evaluator certificate must be upheld by participating in the annual PRAT® -TMA-meeting after the PRAT® Evaluator certification.

6. Training:

Although training ahead of certification is highly recommended there is no requirement for training to be evaluated and eventually certified for neither PRAT® Worker nor PRAT® Supervisor.

Training and evaluation for each level, usually takes 7 days with certification on the 7th day.

7. The PRAT® Evaluation / Certification:

To become PRAT® certified, the candidate has to pass PRAT® Evaluation for the level, aspired for, either PRAT® Worker or PRAT® Supervisor.

Any PRAT® Evaluation consists of a written test and of a field test.

The written test for PRAT® Worker is primarily a multiple choice test. There is one hour to do the test.

During the PRAT® Worker written test, the candidate must demonstrate a good understanding of...

- communication
- load-sharing anchors
- fallfactor, including analysis, calculations and risk management
- materials, strengths, risks, use, limitations, disadvantages and advantages
- tools, strengths, risks, use, limitations, disadvantages and advantages
- ropes, both static, semistatic and dynamic single and double ropes
- harnesses, strengths, risks, use, limitations, disadvantages and advantages
- responsibilities of both the PRAT® Worker and the PRAT® Supervisor.

The written test for PRAT® Supervisor comes in two parts.

a. The candidate has to make a written Job Hazard Analysis of a given rope access job, including risk assessment, work plan and rescue plan.

b. Also the candidate has to answer a technical test.

During the PRAT® Supervisor written test, the candidate must demonstrate a really good understanding of...

- responsibility
- strength in different tools under different kinds of load, shockload and stress
- insurance as required for rope access work
- legislation, regarding rope access
- requirements from the authorities, regarding rope access
- Job Hazard Analysis, risk assessment, workplan and rescueplan for rope access work
- produce, understand and interpret rope access incident reports.

For the written tests, the candidate is not allowed access to any help and only allowed to use pencil, eraser and a blank piece of paper.

When the written test is done, the candidates prepare themselves for the field test.

Meanwhile the written test can be evaluated, so the result can be passed on to the candidate.

The field tests for both PRAT® Worker and PRAT® Supervisor usually lasts a day and requires the candidate to show all skills, defined for that level in the Certification Requirements.

To ensure that a PRAT® Rope Access Technician will be trained in and certified to lock all kinds of carabiners, it is required, that all safety relevant carabiners, used for the field test, must be screw gate carabiners.

A PRAT® Certification session must always be run by a Certified PRAT® Evaluator, assisted by either a ..

- Certified PRAT® Instructor or another
- Certified PRAT® Evaluator* or a
- PRAT® registered PRAT® Instructor candidate or PRAT® Evaluator candidate, if certain criterias are met by the PRAT® Evaluator** or
- the trainer/instructor, running the training ahead of the Evaluation (if any).

Either the PRAT® Evaluator or the PRAT® Instructor / the other PRAT® Evaluator must be independant of the Evaluation Host and of the instructor.

*In situations, where two PRAT® Evaluators are running a PRAT® Evaluation session together, the PRAT® Evaluator with the longest experience as a PRAT® Evaluator leads the evaluation session.

** If the PRAT® Instructor candidate or PRAT® Evaluator candidate is independant of the host and of the PRAT® Evaluator, and if the leading PRAT® Evaluator has been a leading PRAT® Evaluator on at least ten PRAT® evaluation sessions during the last three years, then the leading PRAT® Evaluator is allowed to run the training ahead of that evaluation session too.

The (leading) PRAT® Evaluator is responsible for running the PRAT® Evaluation, according to the PRAT® Certification Requirements.

The primary role of the (leading) PRAT® Evaluator is to ensure, that the evaluation is run in a fair way, consistent with the PRAT® Certification Requirements.

Also, the PRAT® Evaluator is responsible for reporting the results of the Evaluation.

The PRAT® Evaluator may chose to let the certification host arrange some or all of the practical arrangements, concerning the certification, but the PRAT® Evaluator is still responsible and thus has to approve any arrangements of the certification host, concerning the certification.

It should always be attempted to reach any decision, concerning an ongoing evaluation, in agreement between the leading Evaluator and the Instructor / other Evaluator, so an unanimous decision can be passed on to the candidate.

If an agreement can not be reached or if in doubt, the leading Evaluator makes the decision, and only this decision is passed on to the candidate.

Both the candidate and the Instrucor / other Evaluator can make a complaint to the PRAT® Evaluation Board. Any complaint must be written and sent to the PRAT® Evaluation Board within three weeks of the evaluation on: info@prat.cc.

8. Grading the PRAT® Certification:

All PRAT® certifications consist of a written test and a field test.

Both the written and the field tests are graded with the help of a dual evaluation system, involving both “safety checkpoints” and “routine points”.

A maximum of two safety checkpoints can be missed in the entire PRAT® Worker certification.

A maximum of one safety checkpoint can be missed in the entire PRAT® Supervisor certification.

A minimum of 90% of all routine points must be attained in both the PRAT® Worker and the PRAT® Supervisor certifications.

If a candidate fails to meet any of the abovementioned criterias, the candidate fails the entire certification and can not continue. The evaluation will thus be stopped for that candidate.

To be reevaluated,, the candidate must then attend a new PRAT® certification session at least two weeks later than the original failed evaluation.

9. Certification site requirements:

The certification site must offer facilities, that allow rope access work of at least 8 meters height.

To allow the Evaluator and the Instructor / other Evaluator good visibility and thus to ensure the safety of the candidate during evaluation, the height of the certification site should not exceed 20 meters of height.

The certification site must offer possibilities for a wide variety of rope access work , including all relevant rope access procedures.

Thus there must be a variety of options for setting up ropes and making belaystands, anchors and rigging for the candidates.

This would ususally mean having a variety of platforms etc. from which the candidate can set up ropes and anchors etc.

Also the certification site must have a suitable room, including heating (if necessary) and light, in which the candidates can do their written tests.

An independent back-up system must be used at all times, so that anyone, hanging from a rope, is connected to at least two individual systems at all times.

This counts for all rope access work, emergency procedures, rescues and of course also for training and evaluations.

Special care must be taken to ensure, that the back-up tool is suitable for the purpose, that it is used according to manufacturer requirements, that it will hold two person loads, if used for rescue purposes (pick-off rescues) and that it will hold on loaded ropes (eg. on the way up or down to a casualty to do a pick-off rescue).

10. Certification Requirements, PRAT® Worker.

A PRAT® Worker is certified to efficiently and safely ...

1. - work with rope access under the supervision of a PRAT® Supervisor
 2. - understand and distinguish advantages and risks, markings and diameters etc. of different ropes, including static, semistatic and dynamic double and single ropes.
 3. - understand and distinguish advantages and risks etc. of different harnesses, including sit, combined and full body harness.
 4. - understand advantages and risks etc. of all relevant personal rope access equipment
 5. - set up, inspect, maintain and use personal standard rope access equipment.
 6. - set up and use at least three different tools for ascending in rope access
 7. - set up and use at least three different tools for descending in rope access
 8. - set up and use back-up tool effectively and safe on separate rope
 9. - set up and rig load sharing, multiple anchors with at least three anchorpoints for rope access work
 10. - set up and use directly releasable and lowerable systems with both forwards (downwards) and backwards (upwards) locking systems, depending upon the situation.
 11. - set up and pass redirect/deviation
 12. - set up and pass short rebelay ($x < 30^\circ$ between the two sets of ropes at any time)
 13. - set up and pass long rebelay ($x > 30^\circ$ between the two sets of ropes)
 14. - perform rope to rope transfer
 15. - pass knots on both ropes whilst both descending and ascending
 16. - climb both up and down in vertical structure with shock absorbing lanyards
 17. - lead climb, placing runners at safe intervals and distances to any object (ie. the ground)
 18. - communicate safely between lead climber and belayer
 19. - rig safe belay station/anchor for belayer, both lead climber (up) and second (down)
 20. - understand and show safe ways of traversing and downclimbing whilst lead climbing
 21. - belay lead climber
 22. - make a controlled leader fall (max. FF 0,5)
- An extra dynamic back-up rope must be set up and used for the fall.
23. - change over from any descend-method to any ascend-method and vice versa
 24. - ascend, using ascenders
 25. - ascend, using Industrial Descender
 26. - ascend, using prussiks, demonstrating knowledge and ways of mitigating risks, associated with shockloading
 27. - descend, using Industrial Descender
 28. - descend, using both Figure of eight and belayplate, (eg. Sticht), backed up by both Prussik, French Prussik and Klemheist.
 29. - descend, using Munter, backed up by Prussik
 30. - releasing loaded prussiks in at least two ways
 31. - directly belay a rope access worker, taking in and paying out rope, whilst the rope access worker is both descending and ascending (attending his back-up rope from above).
 32. - lower a rope access worker
 33. - negotiate edge on both descend and ascend, whilst installing and removing rope/edge protection
 34. - move on an aid traverse, both with sliding and stationary anchors
 35. - change over from ascend to aid traverse and from aid traverse to descend and vice versa
 36. - tie off both loaded and unloaded Figure of eight and belayplate, (eg. Sticht, ATC etc.) and releasing both again
 37. - tie off both loaded and unloaded Munter and releasing it again
 38. - perform rescue, using directly lowerable systems
 39. - perform rescue, using directly lowerable systems and passing knot/knots through the anchors.

40. - perform a pick-off rescue, when the casualty is in descend mode
41. - understand and calculate fall factor correctly
42. - understand, prevent and treat Suspension Trauma
43. - tie the following knots safely: Double Figure of Eight knot to tie in, Double Figure of Eight loop on the rope, Bowline, Barrel knot, Double Fishermans knot, Clove hitch, Tape knot, Butterfly knot, Slip knot, Prussik, French Prussik and Klemheist
44. - understand advantages, disadvantages and risks, associated with the use of the above knots
45. - use and fill out a rope access logbook
46. - use and fill out incident-reports, categorizing incidents in severity from 1-5
47. - understand and follow a Job Hazard Analysis, a rope access work plan and a rope access rescue plan
48. - identify safe and hazard zones

During the written and the field tests, candidates will be asked to show all of the above skills (but not necessarily in that order).

11. Certification Requirements, PRAT® Supervisor.

A PRAT® Supervisor is certified to efficiently, safely and convincingly do all of the above (PRAT® Worker Requirements) and all the below (PRAT® Supervisor Requirements), showing great routine, skill and experience to...:

1. - identify, assess, analyse and mitigate risks
2. - make job hazard analysis
3. - make effective rescue plan for all aspects of rope access work
4. - supervise rope access work and manage rope access teams, certified in any rope access system with publically available Certification Requirements
5. - plan, coordinate and perform rescues effectively and safe
6. - understand advantages and risks etc. of all relevant rope access equipment
7. - set up, inspect, maintain and use all relevant rope access equipment.
8. - identify and rig from Structural anchors
9. - set up, use and understand indirectly lowerable anchors and systems, including both pass-through and munter in the anchor.
10. - understand, calculate and mitigate resulting forces in indirectly rigged systems
11. - perform rescues on indirectly lowerable systems, both from the ground and from the top, both with and without Munter at the top
12. - perform rescues of casualty being stuck on protruding object, using counterweight descend on indirectly lowerable systems, both from the ground and from the top, both with and without Munter at the top
13. - perform rescue by hauling with pulley system from platform, using Alpine Clutch/Prussik/Bachmann
14. - perform rescue by hauling with pulley system from platform, using descender/ascender
15. - perform rescue by hauling, hanging from the rope (Pitch head haul)
16. - coordinate and perform cross hauling and using Cross hauling as a means of moving ie. an injured climber
17. - rig and use a Guideline
18. - rig and use a Highline
19. - understand forces, associated with high- and guidelines etc. and how to use forcelimters
20. - move incapacitated climber by the use of a Guideline
21. - move incapacitated climber by the use of a Highline
22. - perform pick-off rescue during ascend on both short and long ropes (eg. $x < 100$ m.)
23. - perform pick-off rescue through short rebelay, back to original starting point

24. - perform pick-off rescue through long rebelay, back to original starting point
25. - perform pick-off rescue through redirect/deviation, back to original starting point
26. - perform pick-off rescue through aid traverse, back to original starting point
27. - perform pick-off rescue, using Munter as primary descender
28. - perform rescues of injured person past obstacles/knots on both ropes
29. - perform rescue of injured lead-climber, when the incapacitated climber is at a height, being less than half the length of the rope above the ground
30. - perform rescue of injured lead-climber, when the incapacitated climber is at a height, being more than half the length of the rope above the ground (full length rescue)
31. - perform rescue of injured lead-climber, when the incapacitated climber is stuck on protruding object when being lowered (full length rescue)
32. - perform 3D positioning
33. - perform effective rescue of incapacitated climber on 3D positioning, placing the casualty on any given spot
34. - remove ropes from below after use for rope access purposes in at least two different ways
35. - control, maintain and approve rope access, work at height and fall protection equipment
36. - understand insurances for both employees, liability and accidents
37. - understand all laws and legislated regulations, relevant for rope access
38. - understand and interpret rope access incident reports
39. - be able to tie and to use the knots: Double Figure of Eight loops (Bunny ears), Yosemite knot and Bachmann knot
40. - understand advantages, disadvantages and risks, associated with the use of the above knots

During the written and the field tests, candidates will be asked to show all of the above skills (but not necessarily in that order).

12. Safe Practices.

In many ways, PRAT® do not differ a lot from other rope access systems, when it comes to the safe use of rope access.

PRAT® therefore references to the SPRAT Safe Practices document from SPRAT (Society of Professional Rope Access Technicians) (www.sprat.org).

However, PRAT® also offers and certifies for techniques, that are not covered by the SPRAT Safe Practices document:

Amongst these are...:

- a. - Rigging and setting up anchors.
- b. - Using alternative techniques and tools for ascending, descending and rescuing.
- c. - Lead climbing.

Below you will find Safe Practice recommendations for the above situations, which are not covered by the SPRAT Safe Practices document.

a. Rigging and setting up anchors etc.

When setting up ropes / rigging anchors etc., the following should be observed:

- A structural anchor must be able to hold at least 22 kN.

If not or if in doubt, load-sharing anchors must be used.

- Anchorpoints for a load-sharing anchor could have one or several anchorpoints in common with the anchorpoints for the other load-sharing anchor (for the other rope).

However. At least one anchorpoint must be unique for each anchor.

- Anchorpoints for a load-sharing anchor should be set at an angle with each other of no more than 60°.

- Anchorpoints for a load-sharing anchor should be equally loadbearing.

- Anchorpoints for a load-sharing anchor should be independant of the other anchorpoints for that anchor.

- Risks of abrasion should be taken into consideration and precautions should be taken, where needed, ie by using edge-protection, rope-protection, stabilisation or redirects etc.

- Lowerable systems (rigged to lower/rigged for rescue) should be used wherever possible.

- Load-sharing anchors, that are being left unsupervised should have at least three loadsharing anchorpoints per anchor.

b. Alternative techniques and tools for ascending, descending and rescuing.

Whilst most rope access work might be done with purposebuilt tools, there are situations, where alternatives for a variety of reasons would be the better choice or even the only choice (if ie. the purposebuilt tool fails or is lost).

- In such situations, precautions should be taken to ensure, that the alternative tools and methods are no less safe than the the techniques and tools, that they replace, eg. if a Figure of eight is used for descend, a Klemheist might be installed to ensure, that the Figure of eight will stop, even if the rope access technician should let go of the rope.

c. Lead climbing.

Whilst lead climbing may be a flexible way of gaining access, it also involves risk of being subjected to a fall, and it should thus not be used, unless safer alternatives are not available or feasible.

- For lead climbing a dynamic rope, either one single or two double ropes (depending on the situation), must be used.

- At no point during lead climbing should the worker be in risk of hitting the ground, if he should fall off.

- The belayer must be connected to an anchor to ensure, that he will not be lifted off of the ground, if the leadclimber should fall.

- If lead climbing more than one rope length, a hanging belay may be necessary, and in that case special techniques must be used to prevent the the fall-factor from ever rising above 1, if a fall should occur.

- Special communication must be trained to prevent misunderstandings.

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