



PARACLIMBING ROUTESSETTING GUIDELINES

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1. ABOUT THE RULES

1.1. SPORT CLASSES (UNDER REVISION)

Refer to IFSC Classification Rules.

1.2. COMPETITION AND CLIMBING PROCEDURE

Refer to IFSC Rules for competitions.

1.3. SAFETY

Refer to IFSC Rules for competitions.

Competitors shall compete on Top Rope. The IFSC Judge may decide, in consultation with the Chief Routesetter and with the approval of the Jury President to have a belay assistant at the beginning of the route to provide additional security and avoid pendulum and ground fall with a second Top Rope on the lower part of the wall (Most of the time on 3rd or 4th quickdraw).

The climbing ropes shall be connected to the competitor's harness by two Screwgate or Self-Locking Karabiners arranged in opposition and the climbing rope must also be attached to the Karabiners using a "figure of eight" knot, secured with a "stopper" knot or tape.

In case of double belaying it is better to have a figure of eight knot in the middle of a long rope than having two ropes and two knots on the harness.

2. GENERAL TIPS

- Care should be used regarding the rope's friction on traverses and with volumes. Routes should be attempted in Top Rope to determine the safety.
- Set a jump to arrive to the Top hold should also be done with care, as in some cases the ropes affect the performance.
- Pararoutesetters have to be creative in the moves, as Paraclimbers should be challenged in their climbing.
- The first meters of each route should be very easy and avoid pendulums.
- **Routes without quickdraws and spits cause visual impairment categories can step on it.**

2.1. ANTICIPATE MERGING

The rules of Paraclimbing assume that merging of categories can happen if the minimum requirements to open a category are not met (not enough competitors, not enough countries represented, or both). The Para Routesetters should be aware of this merging when designing the routes. Usually the participants for each category are known at least 1 month before the competition, so this information should be obtained timely by the Para Routesetters to prepare for merging.

In case of merging, the route should accommodate both categories, making the route accessible to all categories at least in the first 70%, keeping the last 30% to rank the best climber of the stronger category.

2.2. RE-USE ROUTES IN DIFFERENT CATEGORIES

Due to time and space limitations, reuse of routes is understandable. But Para Routesetters can and should think of slightly changing the recycled route to make it more suitable for the next category: this may mean adding some holds or footholds or changing the crux etc.

2.3. VARIATIONS BETWEEN AND IN CATEGORIES

Even though a single category will group athletes with similar disability, it may still differ in form and severity. Additionally, the other physical specifics can have big impact on climbing like, for example, being shorter. While in able-bodied competitions, this is usually compensated by dynamic climbing, some categories experience difficulties with this (RP1, B1 etc.). Para Routesetters should assume there will be shorter climbers and/or climbers with more limited range of motion and should provide them with additional footholds and avoid dynamic moves. For amputee categories, Para Routesetters should keep in mind to make mirror moves or same intensity moves.



2.4. DIFFICULTY OF THE ROUTES

At least 1/3 of the route should be climbable even for less competitive and experienced climbers. There should be no eliminating cruxes in this part. The route should get progressively harder towards the top. They should ideally have different character and one should be doable even for weaker climbers. The second should be hard enough to ensure elimination and in a similar style and intensity of the final route

2.5. HOW TO TRY THE ROUTES

The routes should be tried by imagining or mimicking the disability for which they were set. Para Routesetters should try AL-1 routes camping with only hands, B1 routes being blindfolded, AL-2 using only one leg. For AU2 Routesetters should try to reach holds with the shoulder and catching holds with the side part of the hand for mimicking the stump. For RP1 and RP2 reachy moves and dynamics should be avoided.

2.6. WHERE TO SET AND FOR WHO

Before starting setting, it is important to decide where the different category will climb, due to their differences in abilities. Especially because it is hard, at times, to have enough good space on the wall, which could become even harder if merging happens.

- **B1, B2 and B3:** Overhang, half-overhang, vertical.
- **AU1:** Slabs, Vertical, corners, overhang (less than 10°).
- **AU2:** Vertical, slab, corner routes, half-overhang and overhang (but with addition of big volumes so the holds can be in a vertical plan).
- **AL-2:** Overhang, half-overhang, vertical.
- **AL-1:** The wall should be overhanging, ideally between 10° and 30°. If it is not very steep, the Para Routesetters must be careful with the volumes, to avoid the possibility of athletes scratching their legs against them. In case the athletes had to climb in a vertical part because of a lack of space in the wall, Para Routesetters should design the routes doing zig-zags and trying to use volumes to increase the climbing steepness, eliminating the possibility to scratch legs.
- **RP1 and RP2:** vertical and half-overhangs walls are appropriate, avoid overhangs or add big tuffs volumes to create a vertical climb and avoid moves that require strong core.
- **RP3:** all the angles work. RP3 can climb all types of routes.

3. ROUTESSETTING SPECIFICITIES OF EACH CATEGORY

3.1. VISUAL IMPAIREMENT (B1, B2, B3)

B1, B2, B3 - Limitations, climbing style

B1 means blind climbers. However, B2-B3 have limited visual acuity or visual field. This means that visual information is important to them, as they do not climb blindfolded. The athletes will spend 3-5 second on each hold they need static positions to have time to search the next holds.

B1, B2, B3 - Routesetting guidelines

- Colour contrast is important. The colour of holds should not be too similar to the wall.
- It is also not good if wall changes colour or panels.
- A route beside the window is also a bad option, as there can be very bright light in the morning qualifications.
- Moves should not be too dynamic and reachy, but Pararoutesetters should not conform to old school climbing thinking when designing their routes.
- No crossing roofs must be placed in the lower part of the route, or at least enough footholds for all heights should be provided.
- More footholds should be used for climbers of different heights.
- Spits can be a problem: footholds and holds should not be put close to spits or they can be put in such a way that the spit is not usable.
- Demos on video should be shot slower, with a few seconds delay before beginning the loop. It should be shot in good light with not too many shadows and zoom can be used. Demo climber should climb slower, more static and lock off moves.
- Organisers should also make sure there is silence while competitors are climbing.

**Route Grades**

B1	Men	Women
Qualifications	6a/b and 6c	5c and 6b
Final	7a/+	6c

B2 and B3	Men	Women
Qualifications	6b/c and 7a+/b	6a/+ and 6c/+
Final	7a+/7b	6c+/7a

3.2. AMPUTEE UP (AU1, AU2)**AU1 - Limitations, climbing style**

Arm amputees, at shoulder.

AU1 - Routesetting guidelines:

- Cruxes should not favour left or right hand.
- Pararoutesetters should add more footholds and try to put big footholds to make smaller steps.
- The route should not be too steep.

AU2 - Limitations, climbing style:

Forearm amputee. There can be lots of variation.

- Most AU-2 athletes were born with an underdeveloped lower arm. The length of the lower arm can vary between just a few centimetres below the elbow (like a “hook”) to almost full length. Importantly, the athletes do not have fingers or a hand. Some of the athletes (typically with a longer lower arm) may have a wrist bone. The mobility of the wrist (if existing) is very much reduced, but for athletes with a wrist and a relatively longer lower arm (who cannot hook from the elbow) it can help with pulling or pushing on holds. In contrast, athletes with relatively shorter lower arms have the advantage to use the stump as a “hook”. The diameter of the end of the stump varies among the athletes, and it can be as large as a wrist bone.
- The aforementioned differences result in a non-negligible variation in the types of holds the athletes can control with their stump.
- There are very few AU-2 athletes with an after-birth amputated lower arm. These athletes would be at a disadvantage if the remaining lower arm is too long to be used as a “hook”, because without a wrist bone it is more difficult for them to push (unstable bones in the lower arm) or pull (no bending in the lower arm) down on holds.
- In order to set fair climbing routes for the AU-2 athletes, first, the climbing movement using a stump of AU-2 athletes with a condition from birth is described. This is followed by specific fairness criteria to be implemented during routesetting.
- AU-2 athletes cannot pinch or use finger pockets with their stump. They often use friction and pushing-and-pulling to be able to use holds with their stump. It often involves a lot of core tension and compression.
- AU-2 athletes rely more extensively on their footwork. For example, the foot position is important for pulling with the stump, stepping high to reach a hold, hooking and pulling with feet to relieve bodyweight from the stump/arm, flagging for balance, and a lot of switching feet as a result.
- Most AU-2 athletes can also hold small crimps with their stump. Most athletes use sport tape around the end of their stump/wrist, which reduces the friction between the hold and the stump. AU-2 athletes often have to lock-off with their shoulder to stabilize their stump on holds as they lack fingers for gripping.
- Dynamic moves with the stump are possible mostly for AU-2 athletes with a short stump which can function like a hook. Dynamic moves are much more difficult to catch with a stump that has no grip/hook potential.

AU2 - Routesetting guidelines:

- Cruxes should not favour left or right hand or the size of stump. No tiny crimps or on volumes.
- Different alternatives could be available for a left or right-handed AU-2 athletes.
- No forced pinch holds and finger pockets should be on the route, unless it is possible to get to it and move on from it with both left and right hand.
- It should be possible to lean in or pull down on holds at least on one side in order to advance on the route. This might mean multiple intermediate holds around the same hold and/or appropriate foothold positioning



- For in-cut holds and jugs, a stump should be able to use the hold. A stump can be about 3 times as thick as a finger and as wide as the wrist bone. This is especially important to keep in mind for overhanging routes.
- Routes should have a great variety of footholds so that every AU-2 athlete can come up with their own solution for a climbing sequence.
- The position of the footholds often determines whether a move is possible. For side-pulls, the position of the foothold should allow for pushing with foot and pulling with arm (or the other way around in a compression move).
- For overhanging routes, footholds should be able to help take part of the weight off from the stump.
- For athletes with a shorter stump, a higher foothold can allow to reach the next hold.

Routes Grades

AU2	Men	Women
Qualifications	6b and 6c/7a	6a/+ and 6c/c+
Final	7a+/7b+	7a/+

3.3. AMPUTEE LOW (AL2)

AL2 - Limitations, climbing style:

One leg is not used. Be aware that there are two distinctions: no leg at all or prosthesis; and left or right leg missing. Pararoutsetters should test routes with both scenarios in mind.

AL2 - Routesetting guidelines:

- Try to make mirror routes with footholds and add more for both sides.
- Cruxes should not favour left or right leg.
- Overhangs are not a problem.
- The qualifications should have one route overhanging and one route more technical and vertical.
- No routes on the corner or aretes.

Routes Grades

AL2	Men	Women
Qualifications	7a+/b and 7c/+	6b /6c+
Final	8a/a+	7a/+

3.4. WHEELCHAIR (AL1)

AL1 - Limitations, climbing style:

Seating category. Both legs are not used. Style is camping with hands only.

AL1 - Routesetting guidelines:

- Legs should not brush against the wall. The easiest way to achieve this is by setting on at least a little overhanging wall.
- Pararoutsetters should also mind big holds and volumes. No side holds and of course underclings should be used.
- Not too reachy / long moves.
- The route and the space under the route should be easily accessible for wheelchair.
- If there is not the possibility to put this category in an overhang because of the wall or because of merging with another category that needs to climb in a vertical wall, set routes in traverse with big volumes that increase the climbing angle, also to avoid that competitors get injured when they climb.
- Finally, it is not a problem to set shorter routes, 15 to 20 moves are quite enough.

Routes Grades

AL1	Men	Women
Qualifications	5b and 6a	4 and 5
Final	6b	5+/6a



3.5. NEUROLOGICAL PHYSICAL DEFICIENT (RP1, RP2, RP3)

RP1, RP2, RP3 - Limitations, climbing style

At RP1, the range of motion is usually very limited as well as the stability of the legs and feet. Also there is very weak strength in any part of body. Some athletes use wheelchairs; others have total or partly loss of functionality in one or multiple parts of their body. Climbing is slow and static.

RP2 have impaired range of movement and/or power.

RP3 is similar to RP2 but on higher level.

RP1, RP2, RP3 - Routesetting guidelines

- Routes should offer multiple options to solve a problem.
- More footholds should be used.
- The first few meters should be very easy with no chance for ground fall (the danger of injury is high in this category).
- There should be no long moves, no dynamic moves or sections where you have to put feet high up.
- Some climbers at RP3 are very good. The last 1/3 of the final route should get progressively much harder.

RP1, RP2, RP3 - Routes Grades

RP1	Men	Women
Qualifications	5c/6a and 6b	5b and 6a
Final	6c	6b

RP2	Men	Women
Qualifications	6a/b and 6c	5c and 6b
Final	7a+	6c

RP3	Men	Women
Qualifications	7a and 7c/c+	6b and 6c
Final	8a/b	7a+/b