As a race organizer you play an important role in the development of adaptive Nordic skiing in the U.S. Thank you for challenging yourself and your organizing committee to open your event to more members of your community. One of the biggest challenges for most adaptive athletes is having ample opportunities to compete. As a race organizer, you already have the most important skills and experiences to be able to provide great race opportunities for these athletes. The objective of this guide is to fill in a few of the gaps so you and your race crew are confident in providing the best possible experience for all competitors.

Who Are Adaptive Skiers?
The most common types of impairments we see in Paralympic Nordic competition are amputations, spinal cord injuries, and visual impairments. The International Paralympic Committee (IPC) breaks Paralympic Nordic athletes into three classes: athletes who ski in a seated position (sit skiers, classified as LW10-12), visually impaired skiers who ski standing up and usually with a guide (“VI”, classified as B1-3), and standing athletes (classified as LW2-9). In an IPC sanctioned event, athletes within each class are assigned a percentage based on their level of impairment so they can more fairly compete against one another. Depending on how you plan to integrate your race, this may or may not be something you need to address in your timing and results. This guide should help point you in the right direction and provide some helpful details to support you in whatever type of integration best fits your event.

General Event Accessibility
Making your race more accessible to athletes who use wheelchairs or other mobility devices will also make it a more spectator friendly event. Most accessibility improvements do not require major infrastructure changes, but simply require you to ask a few questions about the layout of your venue and flow of your event and adjust as needed.

- **Accessible restrooms:** Make sure people who use wheelchairs have a clean restroom/porta-potty option at your venue. It is important that these are accessible from a wheelchair and don’t require access by skiing or walking.
- **Accessing trails:** How will sit skiers get from where they park or the lodge to groomed trails? Make sure it is possible to wheel to. If not, explore the possibly of grooming the trail a bit longer to bridge the gap. Other options may be shoveling out some snow to allow easier access to the trail or to create a snow bridge to cover some bare ground to make it sit skiable.
- **Start & Finish:** Is it possible to get to and from the start/finish area either in a wheelchair or sit ski? If your race is point to point and you have wheelchair users or athletes with prosthetic legs they remove when they ski, make sure you or the athlete(s) have a plan for getting their wheelchair/legs to the finish. Most importantly, communication and expectations should be clear on both sides so athletes, coaches, and race crew all know the plan.
- **Lodge:** If you have a lodge, is it wheelchair accessible? If not, are there modifications you might be able to complete to improve the accessibility? Sometimes a simple ramp will do the trick. Handles or rails will make it more wheelchair friendly. Consider making it permanent so wheelchair users can access your lodge and get to skiing all the time.

For more information, contact FIS/IPC TD Eileen Carey: eileen.carey@usoc.org
Find additional resources at the U.S. Paralympics Nordic education page: www.teamusa.org/US-Paralympics/Sports/Nordic-Skiing/Education
Types of Integration
There are several different ways to integrate your event. Below are a few of the options with some notes on when you use each type and how it will impact your race:

- **Total integration:** This would apply to standing and VI athletes. This is the most common type of integration, and usually occurs without you even knowing it. Standing and VI athletes will usually sign up for your race as any athlete would, and no special considerations are necessary with the exception of VI athletes competing with a guide.*
  
  *Refer to Race Organizer Guide: Integrating Visually Impaired Skiers with Guides into Your Race

- **Partial integration:** This applies to races where standing and VI athletes will compete in the main field but will later be separated out, results will be calculated according to their classification and there will be awards based on the calculated results. Athletes with USSA or FIS licenses should still be on general results and receive race points as their raw times indicate.

- **Separate race starts:** This would apply to any time you have sit skiers as a part of your event (with a few exceptions). This is most commonly a stand-alone competition within the same organization structure and event. It will have its own start time, a sit ski specific course, and separate results and awards.

Timing
In the case of “partial integration” or “separate race starts” with multiple people in the same class (i.e. you have three sit ski women with different levels of impairment), you would employ the racer compensation system. In this system, athletes have different compensation percentages that reflect their level of impairment. The system is designed to level the playing field, making it a fair competition among athletes who may have very different capabilities depending on their impairments. As an example, a sit skier with a leg amputation will not get any compensation because they have the full use of their core muscles to aid in their skiing. On the other hand, a sit skier with a spinal cord injury will get a calculated race time of only 86%-96% of their raw race time, depending on how much core function they have. The results will reflect the calculated race time according to these compensations, called “classifications” in Paralympic sports. As a race organizer, you are NOT responsible for assigning the percentages, just in calculating the results based on the athletes’ already-assigned classification. You have a couple options for calculating results:

- U.S. Paralympics Nordic Skiing has an excel sheet (found on our education page) to plug in the athlete’s compensation percentage and raw race time to calculate their final calculated result.
- If you ever use the RaceSplitter app for timing, there is a “racer compensation” feature built in to the app that is very useful in calculating race results. Through this method you won’t have to calculate times when the race is complete. To use this feature, you must turn it on when you set up the race. When you add racers, you can click on “racer compensation” to assign the appropriate percentage. Once the race is set up correctly, you use the app normally.
- As always, make sure to use a back-up timing system just in case your primary option fails.
Integrating Adaptive Skiers into Your Race

This is the element of hosting an adaptive race that can be overwhelming to race organizers initially. Please reach out to us so we can help you work through any of these timing options or answer your questions about classification in general. We want to help take the guesswork or frustration off your plate. A few simple tips may make the difference of making this a fun challenge for your race crew rather than a headache.

Courses
Standing and visually impaired skiers can use the standard event course with no changes. Depending on the difficulty of your course, you will likely need to use an alternate course for sit skiers. Occasionally a citizens’ race is on mellow enough terrain that it may also work for sit skiers, but usually sit skiers require a separate course with gentler terrain and fewer technical elements.

- Terrain: As a rule of thumb, terrain that is appropriate for beginner standing skiers will also work for sit skiers. This will mean shorter and more gradual climbs and descents, and avoiding highly technical elements like sharp corners, especially at higher speeds. Trails that have a more even grade (either from summer earthwork or grooming) will be easier for sit skiers to maintain balance on, as sit skis do not articulate.
- Short loops: Find a short loop (1-3km) that can be repeated depending on the race distance. This will likely make finding an appropriate course more plausible and will also make the race easier to support from an organizer’s standpoint. This will also allow for the possibility of having more experienced sit skiers complete multiple loops while novice athletes may only do 1 or 2 loops.
- Warm-up: If snow is low and you are tight on trail space and plan to have standing athletes jog for a warm-up, remember that this is not an option for sit skiers. Make sure there is an appropriate warm-up option for them. This may mean making a little more time in the schedule to allow for them to warm-up on their race course. If low snow is probable for your event, plan for this eventuality on your initial schedule by building in more time or have sit skiers race first so you are less likely to have to change your schedule at the last minute.
- Try it out! If you want to get an idea if a course will work for a sit ski, try it out yourself or get a local sit skier to test it for you.
- Homologation: If you are interested in more information about designing a trail specifically for sit skiers, refer to the IPC homologation guide, keeping in mind that these recommendations are intended for World Cup skiers. You can find the link to this guide from the education page.

Grooming
As with any ski race, good mindful grooming is critical to safety and ensuring course and stadium elements flow well. Best grooming practices are particularly important for making a course work well for sit skiers, who may not be able to react as quickly to variable conditions or terrain as their standing counterparts. A few grooming practices that will have a big impact on your event running well:

- Avoid high speed merges

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Remove tracks on tight corners and when trails merge
Make sure tracks never force skiers into dangerous situations (off the course, into v-boards, into oncoming traffic). Changing direction in a sit ski takes significantly more real estate than for standing skiers, so there are situations where you may have to end tracks earlier than you may normally to account for this.
Even graded trails are preferable
Fill in the divots in trails sometimes created by large machines, especially when they occur in high speed or high traffic parts of the course
Make sure that your classic tracks are not so far off the side of the trail that the outside pole punches through the snow. For a sit skier, this can make it nearly impossible to get up a hill. Making sure your race trails are groomed several times in anticipation of your event (rather than just the night before) will help alleviate this problem in softer conditions.

Seeding, Start & Finish
Seeding: Standing and visually impaired athletes should be seeded according to their earned points (USSA, FIS, or regional points system if applicable). Visually impaired athletes skiing with a guide should be started as the last starter(s) of the field only if they don’t have points*.
Start: Sit skiers start with their torsos behind the wand. If the start gate is too low or narrow to allow for this, start them in the late start lane and manually move the wand at start or figure out what works best for your start/timing crews based on the timing system you are using. Make sure the Chief of Timing is part of this planning process. Standing athletes do not require a different start protocol. There are some exceptions for VI athletes skiing with a guide*.
Finish: Sit skiers’ finishes should be recorded when their torso crosses the finish line. There are some special considerations for finish crews when recording VI skiers with guides*.
*Refer to Race Organizer Guide: Integrating Visually Impaired Skiers with Guides into Your Race

Biathlon Races
Integrating adaptive biathletes into your biathlon race will generally follow the same best practices as outlined in this document in addition to IBU standards. There are a few Paralympic-specific biathlon details that will help to ensure your event is a success:

Adaptive biathletes shoot from 10 meters. This is the same distance as youth biathlon so many ranges are equipped to support this.
Targets for sitting and standing athletes are 15mm in diameter. If you do not have appropriate targets, U.S. Paralympics Nordic Skiing has some that we can send you for use during your event. Please contact us as soon as you know your needs as we operate on a first come, first serve basis.
Sitting and standing athletes use .177 caliber air rifles and shoot from the same points as one another.
VI athletes use audio rifles, also from a 10m distance. The audio rifle system requires its own point. VI athletes usually bring their own rifle and target system, but make sure to communicate with them before your event to make a plan. Some audio rifles require power to the target.

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Adaptive biathletes shoot from the same firing line as athletes shooting with .22 caliber rifles.

Best practices are to reserve a few points on one end of the range for adaptive athletes (i.e. set up points 26-30 with air rifle targets).

Adaptive biathletes do not carry their rifles while skiing. Coaches bring them their rifles when they arrive to the shooting point.

Standing athletes who shoot with one arm or no arms are permitted to use a rifle stand on a spring that they should bring with them.

Adaptive athletes only shoot from the prone position, but otherwise can be integrated into your existing race format.

In an IPC sanctioned event, sit skiers use a 100m penalty lap, whereas standing athletes will use the standard 150m. If you are not sanctioning your event or if there is not a 100m option at your venue, have all athletes use the standard penalty lap.

Per IPC rules, it is not necessary to check the trigger weight of air rifles used in Paralympic competition. Other rifle check rules apply as in IBU.

Awards
If you have advertised your race to adaptive participants and plan to have awards for your event, you should have a plan for adaptive awards as well. If all classes are represented, they are as follows:

- Standing (LW2-9)
- Visually Impaired (B1-3)
- Sitting (LW10-12)

As it is rare for all 6 classes (3 classes, men and women) to be represented fully, we would recommend that your awards leave out dates or class details so they can be used across classes and/or at future races.

Assistance
In principal, adaptive athletes do not necessarily need additional assistance. Many Nordic athletes choose to do such a hard sport specifically because they are capable, independent, and love a challenge and adaptive athletes are no different in this regard. The more accessible and well planned your event is, the less likely it will be that adaptive athletes will need assistance. This can be the most important successful integration strategy and will make your event better for all competitors. There are a few general concepts to keep in mind regarding assistance of adaptive athletes:

- Occasionally, new sit skiers may want someone to ski with them during the race. In this situation, you should allow for a skier to have a “guide”. This will ultimately make your event run more safely and may be just what that competitor needs to get comfortable with the concept of racing.
- Adaptive athletes should be treated as any other competitor. Unless they are in danger or are putting another racer in danger, volunteers or officials should not aid them during a race. Remember, falling is part of racing!
In a non-dangerous situation, ask if someone needs help before assuming they do. A task that may seem daunting to you may be an easy task for someone who does it all the time.

Think of a wheelchair like one’s legs or personal space. If you wouldn’t touch someone’s legs in a situation, don’t push their wheelchair without asking either. Having said that, there are many situations in snow that are very challenging for an athlete who uses a wheelchair so don’t be afraid to offer your help.

If a sit skier goes off course, it is permissible to help them get back onto the trail at the place they left the trail.

It is not permissible to push any athlete during a race. Sometimes on steep uphills, a sit skier may need bracing to prevent sliding backward down the trail, causing a hazard to themselves and/or other racers. In this situation, a course official may stand with their legs between the tracks and with one leg supporting the back of the sit ski so to not let it drift back on the trail.

Course officials should be in particularly challenging uphill or technical sections where athletes will have a lot of speed in case assistance is needed.

Support and Sponsorship
Events are a great way to instill some excitement surrounding Nordic skiing in your area. Integrating adaptive athletes into your race may be a great way to engage more members of your community. Are there local or regional adaptive organizations that may have potential participants or volunteers? Perhaps there are some local companies who have interest in sponsoring an event with an adaptive component. Are their media outlets that may be interested in this aspect of your event? Additional exposure will help to engage more potential racers and will be positive for the growth of your event and club.

Further Support
Thank you for your support of the growth of adaptive Nordic as a race organizer. Please reach out to us if you have questions or need support with any aspects of your race planning or organization as it relates to integrating adaptive athletes. You provide a critical service to the adaptive Nordic community and we want to make sure you are supported to be able to run the best race possible.

There are some additional resources that you may find helpful for organizing your event if you really want to delve into the Paralympic world. While these resources have great and helpful information, we do not believe you need to be running your events perfectly according to IPC standards to provide an important service to adaptive racers. It is more important that they get the racing experience and can be part of the larger Nordic community. Guidelines for sit ski courses, race organizer guides, rules, and other relevant resources are on the U.S. Paralympics Nordic education page, linked below.

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