

# news D'Nord

from the PSIA  
Nordic Team  
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## PSIA's New XC Technical Model

by David Lawrence

[For a Video Explanation and the Rest of the Article, click here...](#)

### Watch This

Great video from the Swedish  
Snowsport Research Center

<https://www.youtube.com/watch?v=YRwaGdFBIaU>

### Why a Cross Country Skiing Technical Model?

During PSIA's annual team training event, an event where the PSIA Alpine, Snowboard, Freestyle, Adaptive, Telemark and Cross Country teams gather to plan, set goals, train with the national office staff and work, the XC team focused like a laser on a new XC Technical Model.

The primary goals of the model, to:

- organize XC (skate and classic) movements into a short list of primary skill sets
- create a foundational, sport specific structure in order to inform coaches and instructors
- create a simple but effective movement analysis tool
- unify how we discuss, write and think about XC skiing

### Why Another Model?

When I introduced the new model to a long time friend, instructor and avid master skier, he said, "After all the PSIA models that I've heard over the years, why do we need another one? All I have to say is that this better blow me away!" Guess what? The model completely underwhelmed him!

Great!!!

### Get Your Gear

Remember to visit the PSIA website for awesome gear and steep pro discounts on much more than just Nordic ski gear. Check the site often because companies in the PSIA supplier pool changes often. You'll need your username and password to get access:

<https://www.thesnowpros.org/Login/tabid/340/Default.aspx?returnurl=%2fproofertest.aspx>

## Check Out This Sweedish XC App

This is a great app full of video examples and explanations of skiing across the pond! The app costs money, but if you want to geek-out, well worth it.

<http://www.sport-apps.ch/cross-country-skiing/>

Why great? Because the model is nothing new. The strength of the model lies in its simplicity and flexibility. The new model doesn't create new controversy or debate, instead it takes the fundamentals of skiing and organizes them into an effective, easy to follow, universal structure to help coaches and instructors with movement analysis and technique communication.

Our previous models didn't nail accuracy or simplicity; instead, many users of previous models had to learn new terms, concepts and ideologies to grasp the ideas of the model. Other models tried in the past, like the Alpine Skills Model (Rotary, Pressure, Edging, Balance) or USSA's Sports Performance Pyramid (Body Position, Timing, Power) or PSIA XC Skills Model (ski-to-ski balance, push-off, poling, rhythm, edge control, and relaxation), didn't get skiers, coaches or instructors to where they wanted to go.

### The New "XC Technical Model"

Our new model combines USSA's Sports Performance Triangle with PSIA's new XC Skills Model.

### How It Works

USSA's Sports Performance Triangle organizes the "ingredients" of all sports, whether describing what an athlete does when playing tennis, ping-pong, basketball, football, downhill skiing or cross country skiing. These "ingredients" common to all sports are: fundamental athletic body position, fundamental movements, timing and power.

When you combine body position, movements, timing and power together, the resulting outcome produces "sport specific skills." For cross country skiing, both skate and classic, the "sport specific skills" a skier does are: push-off, weight transfer and glide.

[For a Video Explanation and the Rest of the Article, click here...](#)

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## Scotty's Tips and Tricks: Classic, Skate & Tele

by Scotty McGee

Try these drills to up your game for Classic and Skate Skiing:

### Classic Drill:

On level terrain, Double Pole Kick, with no poles. Helps train the ability to set the wax without the forward kick, and maximize propulsion by coordinating the forward arm swing and extension with the push-off.

#### Skating Drill:

Practice long gliding by double poling on one ski, in or out of the track, with a focus on restful alignment over a flat ski. Resist the natural inclination to ride the inside edge by rolling your ankle or knee in. Stay stacked! Use functional tension in the ankle and lower leg to stabilize and balance over your gliding ski, then look for more restful way of gliding in alignment to maximize glide and increase efficiency. Then apply these practiced balance movements to lengthen your glide in the V2 and V2A.

#### Tele Stance Drill:

With beginners, or anyone having trouble weighting their back foot, draw a line in the snow, or lay down a pole, place one foot in front of, and one foot behind the line, in a tele stance. Jump to switch foot placements. Having to jump and land makes you push off of and land on the ball of the back foot. The drill can be repeated with skis on, in place, and then in a straight run, both of which will encourage more accurate balance over the feet.

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## Avalanche in the Rockies, What's Coming, What's Next!

by Ross Matlock

#### What's Happening Now

Our ski season in Colorado has had a mixed start with our usual early season snowfall that sat around in early October and rotted out. The faceting process that seems to be the norm in Colorado has been strong this year and depending on the aspect and elevation has affected the snowpack top to bottom. Christmas and New Year snowfall has laid around for the last several weeks continuing to weaken. On the south and west aspects several sun crusts have formed, up high wind loading has created areas of deep snowpack while stripping other areas.

#### It's What's Coming...

Surface hoar buried deep within our pack still lingers providing the persistent weak layers needed for large avalanche's to occur. It's a mixed bag out there and although current conditions are somewhat stable, its what's coming that makes me pay attention.

### **Inconsistent & Uncertain**

In the Colorado snowpack at this time of year we end up skiing on a 'bridged' snow pack. Weak layers within our snow pack get covered by snowfall that bridges or covers the existing weak layers deeper in the pack. The new snowfall covers up the existing weak layers to the point where we might not affect them while skiing, until we do. This is true this season in the Colorado Rockies and our current snowpack is both inconsistent and uncertain.

At higher elevations and areas that are prone to wind loading the underlying weak layers have been covered providing zones of bridging but these are hard to predict or see and this is what concerns me. With additional load these layers could be problematic in times to come.

### **Mid Winter Problems?**

I think we have the right conditions in place for mid winter problems. Under these conditions, it's difficult to trigger avalanches, very few avalanches occur, but the ones that do run are big—they go into the deeply buried persistent layers, they go wide—sometimes hundreds of feet and they run far.

Knowing what we do about the Colorado snowpack, we do know that our snowfall expected is likely to be in small increments over the rest of the winter. Small amounts of snowfall that loads the snowpack to the critical point but doesn't overload it. Danger rises, but avalanche activity doesn't tip it to the critical point. So as backcountry skiers, what do we have to be careful of?

### **Minimize the Risk**

Stay away from Shallow snowpack areas: slopes with rocks or small trees poking through and windswept areas are places where it's easier to create a local failure and for that failure to propagate. Areas of variable snow pack, loaded in some areas and not in others. Gravitate to areas of more consistent snowpack. Stay away from the classic convex roles or areas that consistently produce avalanches.

A snowpack that is unsupported from either above or below. Cliffs that define a slope from above or end in a cliff below are problematic and worth staying away from.

### **If We Get More Snow, What Then??**

Wind can transport 10 times the amount of snow that falls naturally. Pay attention to the amount of snow that has fallen but also to the wind loading effect. What direction is the wind coming from, keeping in mind that the harder the wind blows the lower on the slope the potential for loading.

Rapid warming from either ambient temps or a strong solar event puts too much stress on the snow pack in a short amount of time. You may need to take more time to allow the snowpack to adjust or settle. In times like this the snowpack is teetering on the edge of instability so give it time to make its adjustment's.

Plan carefully to assess the terrain and make sure the ski terrain is consistent with the current avalanche danger. Don't throw any surprise adventures into the mix; keep it simple with options in mind.

Match ski plans with the avalanche danger keeping in mind that you might have to put off those big descents due to the conditions that exist.

Hold each other accountable for the decisions you make before the trip. Make sure that if you decide to not ski a particular slope or mountain due to current conditions that you don't change your mind due to powder fever or any other human factor that might influence your decision.

Have options and don't get locked into one plan. Just because others are doing it and getting away with it doesn't mean it can't happen to you.

Asses conditions on a day-to-day basis. Just because its good last week doesn't make it good for the current conditions and stay heads up when travelling to new areas making sure you don't assume the same conditions exist in all locations.

### **Terrain Trumps Everything Else. When in Doubt, Go with Easier Terrain.**

Knowing what we do in the Rocky Mountains avalanche conditions are slow to rise and slow to fall so be prepared for your terrain choices to match the forecast.

In conclusion, 3 things need to occur for an avalanche to happen:

1. Unstable snow conditions
2. Avalanche terrain
3. A trigger

Keeping these 3 things in mind and use terrain as the number 1 focus in order to manage these problems. Be safe out there!!

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