What a winter we are having! New natural snow on regular basis. We are going strong even though it is already March. What a fabulous 40th year Sugar Mountain is having.

For many of us skiing/snowboarding is hardly over. There are PSIA/AASI events still on our calendar, ski/snowboard trip during our spring break, or simply skiing here at home. Days are longer, we are fitter, temperatures unpredictable, but generally warmer. That means we can ski/ride longer and harder. But, there is price for everything. Spring conditions are not always easier to deal with. Snow can change from very firm to very wet in the course of a day. Snow in the shady spots and sunny spots can drastically different. Also, a wet deep snow can stop you dead in your tracks. So, be ready. Training is not over yet. It never is over. In this issue there are two great articles by Gordon that you might want to read carefully – and of course, everything else.
Our next Peak Performance will be in April. After that nothing till July. Please send me all your materials to Kosmalaw@bellsouth.net and don’t forget that we have a section for selling/buying, for announcements, for recognition, for funny events, for educational articles, Gordon’s column, health and fitness issues, pictures, etc. All our previous publications are posted on my Web site www.mathsci.appstate.edu/~wak/

Our group picture is on the previous page. Too bad that some of you missed the photo shoot. Look at all these happy faces. We love what we do. Sharing this love and knowledge of snowsports is what we are all about. And some of us were on this mountain for quite a long time. Isn’t it fun to talk about experiences from years back? My first time at Sugar was during 1975/76 season. Who would have ever guessed that I would be here all these years later?

We still have many more turns to make. So, let’s do it. See you at the mountain. Witold

Education

Saving That ACL

By Gordon Carr
PSIA-E Alpine, Level II

I hope if you remember nothing else from my blathering on in these articles, you will attend to and incorporate this information into your daily skiing. I have been researching (unsuccessfully) the source of the safety film from which this information was abstracted. I think it was a National Ski Patrol safety film, but I can’t verify that so far. But the information comes from copious notes I have taken during multiple viewings of the film.

Believe it or not, there are film companies who have randomly filmed people on ski slopes, many of whom are filmed prior to and during a ski fall. Orthopedic experts and ski safety experts examining these thousands of
clips have isolated 6 clear and obvious body and ski positions as precursors and predictors of an impending Anterior Cruciate Ligament tear. The fewer of the 6 precursors present, the less likely the ACL tear. When no precursors are present, the skier usually avoids the ACL injury. When ALL SIX are present, an ACL injury is almost certain.

What are the six precursors of an ACL tear?:

1. Uphill arm back
2. Off balance to the rear
3. Hips below the knees
4. Uphill ski unweighted
5. Weight on the inside edge of the TAIL of the downhill ski
6. Upper body generally facing the downhill ski

When all six are present an ACL tear is imminent and rapid response is necessary if that injury is to be avoided. Notice many of the six elements involve gross bodily positions and would be difficult to change in this rapidly exploding situation. But there are several elements of this scenario YOU CAN CHANGE with immediate muscle movements if you keep your wits about you. They are:

1. Drive arms forward aggressively
2. And bring the hands over the skis
3. Since the uphill ski is unweighted MAYBE you can bring the skis together.

For sure you can do numbers 1 and 2, and this will reduce the potential of an ACL injury to some degree. Remember, the fewer of the 6 present, the less likely an injury. Also, even though a fall is unbelievably instantaneous, (which we all know too well!) there is a sequence to the events, and as you “touch down” it may be possible to bring your legs and skis together AND KEEP YOUR KNEES FLEXED. Avoid stiffening a leg to try and “stop the fall”. But FOCUS ON THE HANDS!

Of course accidents are just that; unexpected and rapidly evolving occurrences. But based upon my spectacular ones, (and I’ve had a few) oddly enough, time seems to slow down, and often it is possible to take some protective actions. Driving hands aggressively forward and over the skis may not seem intuitively obvious, but these are two things which can be done rapidly and which will take away TWO of the SIX precursors of the ACL injury. That may be just enough! So when the fall is imminent and unfolding, develop the mental discipline to DO what you can to protect those wonderful ACL’s!

STAY SAFE AND THINK COLD!

Ice is Nice

By Gordon Carr
PSIA-E Alpine, Level II

Knowing my previous article titles, would you expect the title to have been anything else? BUT ice can be nice! The definition of ice is relative; what is “boiler plate” to skiers in the Rockies is “packed powder” to us Easterners. However, no matter where you ski or ride, there seems to be a universal lament about icy conditions. What folk ought to be concerned about are snow conditions which are truly difficult, dangerous and
sometimes downright unskiable such as death cookies, frozen chicken heads and unpredictably breakable frozen crust.

Ice is skiable and edges can hold as evidenced by alpine World Cup race courses sometimes being injected with water so that they will become MORE icy and firm and won’t rut up so badly! See (SKI, Feb. 2010, p. 65.) Ice is nice; it is easy to initiate turns (actually TOO easy), and the snow to tool performance is much more predictable than on chopped up crud for example. Skiing ice successfully and comfortably (or boarding, I expect), however does take a packet of skills which all beginners and most all intermediate skiers have yet to master. What does it take to tackle ice with panache?

1. Early, early high edge angles with rotary forces applied very gently, if at all.
2. Turns initiated with subtle, smooth and even gentle release and re-engagement of the edges above the fall line of the turns.
3. A disciplined, very quiet upper body where the release and re-engagement of edges at the cross-over are initiated with forward and lateral “core” moves, but where the body still stays more centered over the turn path and stays with the forward movement of the skis (much like the core movements initiating a long radius turn). In other words, stay more “square” with the skis.
4. A slightly wider, more 2 footed stance with weight distribution approaching more 51/49 % on the support ski and inside ski respectively. Two sharp edges grip better than one on ice and glare.
5. Exquisite fore/aft and lateral balance where you can easily “keep up with” the movement of the skis, no matter what they do: slide, slip, skid, carve, or even blow out! No sudden, violent moves are the watch words in hard, slick, sporty conditions. Smooth, gentle and rhythmic gets the job done.
6. Comfort turning more often (not less) in icy conditions. DO NOT “turn shop”, looking for a “good” place to turn! The rhythm of your turns is MORE important than WHERE you turn! (Beginners and most intermediates are always “turn shopping” imagining that somewhere (over the rainbow) there is perfect snow which will substitute for lack of skiing or boarding skills!)
7. Sharpen your edges daily AND touch them up at noon with a pocket stone.
8. “Edge first then apply rotary forces” must be an ingrained habit pattern to ski ice comfortably (ditto in deep heavy, wet snow and crud). Most non-expert skiers habitually apply rotary torque forces FIRST, frequently with whole body or shoulder rotation and then they apply the edging forces usually with whole body inclination or tilt up hill. (Before the objection to “edge first then rotary” is voiced, yes, there is a rotational force occurring simultaneously with edge change: the rotation of the femur in the hip socket of the “old” support leg to get the old downhill foot onto the little toe side which makes this new “inside” ski track the new dominant, support foot and ski. But, this is NOT what is usually meant by rotary forces applied to turns.)

Figure 1 shows two turns where #1 represents the turn initiation phase following the crossover, and #2 and #3 represent the shaping phase in the fall line and completion phase across the fall line of turns respectively. What most folks experience in ice is the skid or blow out of the skis at #3 where the forces generated by the turn itself and gravity combine and gang up on you. If this also is where rotary torque is still being applied with whole body rotation and “Z” shaped, thrown turns, then there is even a third force acting to push the skies out of the desired path. Most inexperienced skiers at this point feel instinctively that
they need to apply MORE edging for better grip, something they typically do by leaning further UP THE HILL, which only adds a fourth force, their own leg force, pushing the skis out from under them. About now the skis are up off the ice and the skier is down and sliding, cursing the friend who talked them into taking the run, and vowing with a vengeance to never ever ski ice again!!

At #3 if you feel the edges losing their grip on the ice it is NOT time for more edging force, it is time for a NEW TURN. When a turn is dead start a new one! When your core “crosses over” the skis, the resultant edge force is directed much more perpendicularly to the slope and INTO the ice and NOT directed toward pushing the skis more down the fall line and out from under you which whole body tipping produces when done vigorously at #3 in turns.

So what to do…what to do… in our teaching clinics? First very little is written about ice technique specific to beginners and early intermediates. Most of our professional publications are written by superbly skilled National Demo Team members FOR other less skilled, but expert, instructors e.g. PSIA’s 32 DEGREES, Winter 2010, p. 20 for riders and p. 26 for skiers. Clearly from my earlier enumeration of skills necessary for the “hard stuff”, all levels of skiers must develop and polish the fundamentals: fore/aft and lateral balance with a strong core; a comfortable athletic stance where equal distance between legs, feet and skis is maintained and snow contact is constant; smooth release and re-engagement of corresponding edges to initiate turns (with opposing edge turns reserved for special tactical challenges); upper/lower body separation to promote a strong core and stable, quiet upper body; ability to add or absorb pressure at any point in turns; and, all the skills necessary to produce smooth rounded turn shapes. Experts need to master these skills; beginners and intermediates must develop and polish these skills with our help using all the drills and exercises which we already know and use for teaching fundamentals in our clinics.

However, there is one drill which I believe is the key to help budding skiers and riders become more comfortable attacking the glare and icy conditions: learning and practicing repeatedly FORWARD SIDE SLIPS while in motion at #3 of turns. These movements of the skis or board are essentially the “feeling” of the snowtool skidding out from under you at #3 in the turns, that time when instead of leaning uphill to put more edge into the turn you must at all costs keep up with the skid of the ski or board. By producing “the skid” with forward side slips the learner gets to practice the skills necessary to keep with the movement of the skis during the dreaded ice skid. While doing this on a safe, groomed trail they can develop the core balancing skills required and they can learn to resist that instinctive “lean up the hill away from the dangerous skid” which is deadly for successful glare skiing and riding. Growing comfort and confidence, as well as skill sets are acquired on a more friendly surface. This is the benefit of this drill.

Ideally it goes like this (a true story). I had been teaching the same group of blue/black skiers in a special program for 12 consecutive Saturdays, folks who on a pre-course questionnaire had identified “ice” as their greatest fear and challenge. On this particular Saturday, following a freezing drizzle over night, the trail report, never-the-less, indicated groomed “loose granular” on all the lower slopes and on the particular upper blue trail I was planning as a warm-up run. Unloading from the lift we saw immediately that the trail report was overly optimistic (aren’t they always) about the upper trail; ours was an ungroomed slope with numerous large patches of blinding glare ice! Following a precarious run down by the group, with all the flailing arms, screeching epithets, lengthy side slips, blown out turns and all the other gyrations you can imagine, one of the class commented, “So I guess today is the day we learn to ski ice?” I spent the rest of the morning on a lower groomed green trail teaching forward side slips and rhythmic turns done to a count on every run. After lunch we went back to the upper Blue trail of the 1st run and skied it. Although there were still some bobbles and skids, at least the pointed comments questioning my ancestry were omitted!! At the bottom, two of the class members skied up as they completed the run and said, “Hey! They must have groomed the trail!”, pleased at their
descent. This was not true. No grooming had occurred; the group had learned, practiced, and successfully used new skills and all were aware of the changes in their ice tactics and skill sets.

A good tactic for all of us is to imagine the trail is divided into corridors each 1/3 of the trail width. Even on firm glare, skiers and riders going down the middle 1/3 of the trail, where most people ski, scrape snow and ice from the surface which gradually gets deposited on the outside 1/3s of the trail. Skiing in those outside corridors tends to be more pleasant than the center 1/3 which is being scraped clean continuously by the popularity of the middle of the trail.

Also, you can’t learn to ski any difficult conditions, ice included, if you totally avoid those conditions. I am always amazed when people say they can’t ski ___(whatever)__, and I ask, when is the last time you tried it. The answer usually is, “Oh! A long time ago!” After initial basic instruction on the skills and tactics necessary to ski on glare and ice, you MUST get into those conditions and give it a go. True, you may not want to go to double blacks right off, but you don’t learn to handle ANY difficult conditions sitting in the Lodge holding a brew!

Finally, one of the best skiers I have ever skied with, a finalist in the last tryouts for the National Demo Team, says you never “enjoy” skiing ice, you survive it! “And, when negotiating difficult, icy terrain with the best of skill, you look better to others than you feel inside. Always!” So get out there when the snow firms up, polish your fundamental skills and then give it a go. Don’t worry; you look better than you feel about your performance. Ice can be (almost) nice!

What Do **YOU** Get Out of Your PSIA Membership?

**Programs**

PSIA-E/AASI conducts nearly 600 educational or certification functions each season in five snow sports disciplines: Alpine, Snowboard, Nordic Track/Skate, Nordic Downhill, and Adaptive (disabled). We offer racing programs and others specific to various populations such as women, children and seniors. These one-to-five day programs are conducted by highly trained members of our professional staff; some of the finest clinicians in the country. Our programs are fun, fulfilling and a great value!

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Passing a PSIA-E/AASI certification exam confirms that you have achieved standards set by the national organization for personal performance, teaching, and professional knowledge. A certification pin is a validation, and it indicates to the public that they can expect a high level of quality and consistency in the safe, practical instruction they receive from you. PSIA-E/AASI members may be certified in any or all of four disciplines: Alpine, Snowboard, Adaptive, and Nordic. Many members are certified in more than one discipline, and we encourage such diversification. Members attend educational updates at least every two seasons in order to stay current with the latest in snowsports education and sharpen their own skills.

**Three web sites** filled with information and resources for you! When you join PSIA-E/AASI, you’re also joining the American Snowsports Education Association (ASEA). That opens you up to the many member-only
benefits, resources and tools available via this web site, www.psia.org (the national association web site) and www.aasi.org (the national web site for snowboard educators).

**Educational materials and resources**

ASEA publishes numerous "core" manuals to support the American Teaching System. In addition, PSIA-E/AASI publishes many manuals and study guides specific to various programs or subjects. Many of these resources are available both in hard copy and online.

**Publications**

All national members receive a subscription to *32 Degrees: The Journal of Professional Snowsports Instruction*, an award-winning magazine that publishes several educational and professional articles each issue. You also receive the Snow Pro, the eastern division newsletter, which is published five times a year and includes articles by our members, technical pieces, divisional news and event information.

And last but not least... the camaraderie of lifelong colleagues, the fun of learning, the reward of teaching and the joy of skiing and riding!

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**Gordon’s Column**

On page 3 of the January issue of *Peak Performance*, Gordon Carr invited **everyone** to give suggestions as to

- How do you know when one is ready to move up to the next level of difficulty?
- What can be done on easier terrain that can prepare a skier for a harder terrain?

Here are a few ideas. Perhaps you would like to share some of yours. Just send them to

Kosmalaw@bellsouth.net

and we will put them into the next issue.

When assessing a student’s readiness to move from Blue trails to Black, I want to make sure they have a clear understanding of upper-lower body separation dynamics and an ability to execute those skills in their skiing.
The steeper the terrain, the more the upper body needs to remain facing down the slope while the lower body from hips down and the skis turn under the “stable” upper body. One way to illustrate these dynamics and develop these skills in the core body muscles is to practice pivot slips on blue terrain. Another static illustration is to take the student to the very edge of most any trail and stand on the outside of the trail side edge. Usually most trails have a berm with very steep sides on the tree side. There you can have the student sidestep over the berm and really “feel” upper lower body separation statically. The skis point sort of down the slope and the upper body faces the trees. Safety here is important; pick the spot; demonstrate what you want done…don’t try to “talk” a student through this….show them. Many express surprise how, at first, this task is difficult even when done statically.

Come on guys and gals…all of you have ideas about this. Send them to Witold!

By Gordon Carr

Here is a way you can feel pressures of black diamond slope while skiing on a blue slope: ski in a funnel. On an intermediate slope, start your run with turns of large radius. After 4 or 5 of them begin making the turns of progressively smaller radius, until you stop.

Another variation of this exercise is to alternate 4 long radius turns with 4 short radius turns. Feel the pressures in the short radius turns, especially the first short radius turn in a sequence.

Yet another version is: lane changes – 5 short radius and 1 long radius turns pattern. Watch for the first short radius turn.

Also try speeding up through 6 consecutive turns and then slow down through next 6 turns. And repeat.

By Witold Kosmala

Teaching Tips

Dynamic Short Turns

By Andrzej Kosmala
Full European Certification
PSIA Alpine Level III equivalent
Mammoth Mtn., California

Witold Kosmala
PSIA-E Alpine, Level III

Ross McNeil
PSIA-E Alpine, Level II

Purpose

Dynamic skiing is when you look down and you see only snow, unless you are in a transition. Dynamic skiing is when you see snow spraying from under the entire ski, not just tails. Dynamic skiing is when you can carve out a perfect 12-meter radius turn on a 16-meter turn radius ski. You can decamber a whole ski, only ski tips, or...
only the tails. Or when skiing you use the technology of the entire ski, when you can change from one kind of a turn radius to another instantly, when you feel light on your skis at times and you can load up tons of pressure at other times, when you can shift pressure from tip of a ski to its tails and back, when your edges are high and practically engaged at all times. Dynamic skiing will make you an advanced skier and will put you comfortably on most terrains on most mountains. Your skiing looks easy in varied terrain and snow conditions.

For a comparison, an expert skier is a skier that when looking down at a double diamond run will drool, mouth will water with appetite, and he/she will want to practically jump out of their skin. An advanced skier will probably get an adrenaline rush instead. You are an expert when you can feel the mountain with your feet and vision is not a necessity. You are an expert when you seek out more difficult surface, ice, death balls, and other discomforts, and when you ski in worst of conditions. You are an expert because you know that all these obstacles make you better and they test your abilities.

Here we will discuss dynamic parallel turns on relatively smooth blue or black slopes with relatively firm surface. Turn radius will be short to medium. At times these turns are called retraction turns, ski cross under, or reaching short radius turns, and they are used by slalom racers.

**Balance**

In dynamic skiing skier depends on strong dynamic balance. Movement is essential for success. Skier has to balance on high edged, and be able to move this balance from the tips of the skis to their tails and back. Depending on texture of the snow and skier’s desires, skier may likely need to balance only on the outside ski, which could carry as much as 95% of the pressure with the inside ski of only 5%. Upper body is noticeably on the tips of the skis at the beginning of a turn.

**Edging**

There must be momentum to these dynamic turns. Steeper slope, cleaner steering of a ski and faster skiing is necessary before these retractions can begin. During dynamic skiing, skier remains on the high edges almost all the time. The skis are rolled from uphill edges to future inside edges almost instantly in the transition. The highest edges are in the last one-third of a turn. They “fly” under the skier in the transition, engage new inside edges before the pressure comes on. The edges get progressively higher in order to withstand the increasing pressure. They reach the highest angles in the last one-third of the turn and all starts up again. Both skis maintain the same edge angle at all times.

**Pressure**

The skis are pressured to the snow the most when they are on the highest edges in the last one-third of a turn. It is important to remain in close contact with boot tongues. If during the loading process heel is pressured more than the toes, it is of vital importance for the skier to bring the skis back and move center of mass forward so that when cross under is complete, little toe on the future inside ski and large toe on the future outside ski pressure the new edges into the snow more actively than the heels. There should be very little pressure on the skis in the transition, but the skis should remain on the snow at all times. When the skis are loaded, the outside ski carries more of this load then the inside ski, unless the snow is soft and/or deep.

**Rotary Movements**

Rotary movements occur just after the skis change the edges after the transition and they are pressured into the snow. Shovel of the ski will be decambered. Its amount will dictate the turn radius of the upcoming turn. This action will tighten the arcs of the skis more than the ski’s labeled turn radius. (To make the turn radius larger than the ski’s labeled turn radius, tails of the skis need to be pressured more than the rest of the ski.) The skier’s upper body should not follow the skis excessively from turn to turn. It can cross the fall line but it does not have to. In either case, the upper body should flow down the slope in a much straighter line than the skis. Skis should extend far to each side of the skier, with relatively long outside leg. If the surface is firm, the inside leg will be relatively short when in the belly of a turn. In powder, both legs will remain of similar length, but closer together with more equal pressure on both skis.
Steering is very active during the entire turn. In dynamic turns the skier more actively drives the skis where he/she wants them to go, then in open parallel turns. That is, skier is in the driver’s seat. Each ski leaves narrow track. Tails of the skis go almost exactly through the same tracks as the tips did. Inside ski makes a sharper turn in order to stay parallel to the outside ski.

**Pole Touch**

Pole touch in the transition marks the symmetry of the turns. Simplest to think that we plant a pole to start a turn (but not while already starting a turn: that’s too late.) Like a blinker in a car: right blinker (turn signal) to turn right. Arms stay off to the sides but in the peripheral vision of the skier, kind of as if carrying a large tray. After the pole touch, arm should not drop. Instead, it should move forward, like putting in the first gear in a car with manual transmission. To perform the pole touch, the wrist with the outside pole should cock forward without reaching with the whole arm, which would create unwanted body rotation. The pole basket should touch snow couple of feet away from the outside ski in the transition, but not too far in front of the binding.

**Terrain**

Retraction turns should be at first practiced on smooth blue slopes where there is no fear of speed. The turns should be shallow at first. As the speed increases, skier should start to tighten the arcs upon reaching the desired speed. When blue terrain is tamed, skier should move up to steeper slopes. Steeper the slope, more downhill facing the body should be.

**Lesson Progressions**

1. **Wedge/triangle made up of shoulders and outstretched arms**
   
   Stand in a wedge position on a gentle slope facing straight down the fall line. Choose an object directly in front of you (lift tower, tree, bush, etc.) and point to it with outstretched arms, elbows locked, fingers touching (almost like pretending to hold a revolver.) Sight continuously over connected fingers the “target” you selected and begin to ski down the fall line making tiny, totally connected turns (i.e. absolutely no traverse in between turns) in a wedge position. As you progress work on making your wedge turns more and more complete, all along sighting your target with connected fingers (i.e. **not allowing** the upper body, torso, to move back and forth following the direction in which your skis move.) You will begin to feel more and more pressure on your outside ski of each turn and tension in the muscles of your core winding up and releasing like a wound rubber band with each new turn.

   As you get proficient in making small, round, turns in a flat wedge, go on into making these turns more dynamically by steering the outside ski more and more dynamically and using more and more deliberate pressure application (fore, neutral, aft) and progressively higher and higher edge.

2. **Sideslip to a check (also known as a platform) with high edge and a downhill pole plant**
   
   Stand across the fall line on a steeper, smoothly groomed slope. Begin a sideslip on both skis by flattening their edge set. Stop the sideslip by sudden, dynamic edge set of both skis done by driving both knees toward the slope (actually begin with ankle articulation inside your boots) and greatly flexing your legs, with simultaneous planting of the downhill pole as the entire upper body moves downward. Repeat over and over. Then perform this task facing in the other direction.

3. **Add pivot to sideslips in #2**
   
   After dynamic edge set with simultaneous checking pole plant, extend your legs simultaneously releasing both edges and rotate them 180 degrees (pivot) by twisting both femurs (legs) across the fall line to face in the opposite direction. Do a sideslip with a check and a downward pole plant and pivot 180 degrees in the opposite direction.
4. Add more shape to your pivots from #3

As you get proficient in pivoting skis back and forth with a flexion check with high edge set and a downward pole plant (lowering whole torso as you majorly flex your legs), begin adding more shape to your pivots, thus changing them into slight turns. Progressively increase these turns by displacing your feet more and more back and forth away from the fall line. **HINT:** make sure you keep moving your body downhill “faster” than your skis. This is the SENSATION you should feel since in actuality you will be moving your body forward along the length of ski at the transition from one turn to the next, but it happens so quickly it’s practically impossible to think about it.

5. Ski in a funnel

Start with long radius turns and gradually decrease to short radius. Focus on long leg/short leg.

6. Start in a Tuck

Start skiing straight down the hill in a tuck. Progressively start making turns to keep the speed constant while body is going straight down the slope. These turns will need bigger and bigger hook in order to control the speed.

7. Start with skating

Skate down the hill to shape to short turns.

**Common Problems, Their Possible Causes, and Ways to Break Them**

| Common Problem | Possible Cause | Way to Break
<table>
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<tr>
<td>Skier starts a turn by inclination and stays inclined all the way to the end of the turn, never changing to angulation.</td>
<td>Try skiing on ice. If inclination is not changed to angulation, skis will slide out to the side. Ski more on a steeper slope, where angulation is necessary.</td>
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<tr>
<td>Skier parks and rides.</td>
<td>Practice progressive edge changing. Do side slip races. Often the skier that parks their body starts the turns with too much angulation, and uses too much lateral movements, especially with the hips.</td>
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<tr>
<td>There is not enough rebound for the cross under.</td>
<td>Kick it harder with the feet in the last one-third part of the turn. Think that there is a weight scale under your feet and you want the needle to go as high as possible.</td>
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<tr>
<td>Skier is not low enough in the transition.</td>
<td>Reach and kick with the skis in the last one-third of the turn is not strong enough.</td>
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**Additional Exercises to Further Improve Dynamic Short Parallel Turns**

Since dynamic short parallel turns call on excellence in balance, edging (especially early edge engagement), pressure, and rotary movements, one should practice tasks that improve these skills. Here are some recommended ones. One of these drills may improve more than one skill, so they are not broken down into categories.

- “Running” down the hill vs. walking
- Push skis back and at an angle in order to instantly engage new edges
- Try showing the bottom of your skis to spectators along the side of the slope.
• Try showing the bottom of your skis to the skier behind you.
• Think that the tails are “above” your head when skiing steeper slopes
• At the last one-third of a turn try to load up your skis. Think that you are on a weight scale and you want to see the largest number on it possible. “Push” your feet down by bouncing, without jumping.
• Drive a car, not a forklift that steers in the rear
• Shoot a gun without putting the gun back in the holster
• Think that you are skiing in a tunnel and you turn the skis on the walls. Stay low in the transition by bending equally in knees and hips, not by only bending forward in the waste
• Do long leg/short leg drills
• 1000 steps
• Shuffle feet when turning
• Do bunny hops while linking turns
• “Push” a large ball with your arms in the direction where your body is to go
• Think that there is a strong wind blowing up the hill against the skier
• Do hockey stops
• Do leapers without lateral move of skis while they are in the air (push boot cuff on a diagonal when landing)
• Practice railroad tracks
• Push boot cuff on a diagonal
• Face down the hill, put poles across the arms, make short radius turns
• Do hop to turn drills

Equipment Turns

How to Determine the Proper Length
For a Snowboard

<table>
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<tr>
<th>Body Weight (lbs.)</th>
<th>Deck Length (centimeters)</th>
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<td>80</td>
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<td>153</td>
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<td>158</td>
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Deck length is increased or decreased (1) centimeter for every (4) pounds of body weight on either side of 100 pounds.

This formula can be modified by adding or subtracting (5) centimeters of length based on skill level, riding style, comfort, or extreme height/weight ratios.

Source: AASI manual

Brought to us by: Doug Washer
A New Take on Twin Tips…
How K2 Classifies Twins and Why it Matters.

By Mark Newton and Scott Squires
K2 Ski and Snowboard Sales for Southeastern and Mid-Atlantic, US

Although the first twin tip skis were developed with freestyle skiing in mind, as ski technology and technique has evolved, we’re seeing twins all over the mountain and in a variety of conditions… and for good reason. Only a few years ago, coming across a twin tip skier outside of your resort’s park was rare, but today you’ll find twin tips on every type of terrain imaginable. If you look closely, you’ll find that although most twins may look similar, there are striking differences… some of these differences are obvious, but many are very subtle, and very important to the overall handling of the ski.

Most misconceptions about twins are easily explainable. For instance, some skiers might think that twins only ski well in soft snow. In reality, there are several models that share common construction characteristics with hard snow charging racing skis. There are some all-mountain twins like the Line Prophet 90 that even have metal laminate construction, making for a great hard snow oriented ski, with the added versatility of an up-turned tail.

Without a doubt, today’s most important twin tip performance characteristic has to do with sidecut, and it’s called taper angle. It’s also the single best distinguishing design feature for all twins. Taper angle is simply the relationship between the width of the ski at the tip and tail. K2 breaks its line down into three distinct categories according to taper angle… directional taper, bi-directional taper, and symmetrical taper. It’s actually quite simple… a ski with a tip width that is much wider than it’s tail width has a traditional directional taper… meaning it’s going to have an overall shape that is similar to that of any all-mountain ski. The K2 Extreme is a great example of this type of ski. The addition of a tip in the tail of the ski just adds to the versatility of this proven ski shape. A ski with a tail that is only slightly less wide than its tip is a bi-directional ski. This type of ski will ski backwards almost as well as it will ski forward and your binding mounting point will be moved further forward, but not quite centered. This type of ski gives the skier the feel of a true freestyle setup without sacrificing all of the ski’s freeride performance. i.e. K2’s Kung Fujas. Symmetrical taper, like the name implies, is found on a ski with an equally wide tip and tail. This ski is at home in the park, and the center mounted stance skis exactly the same backwards as it does forward. Examples include K2’s Disorderly and Line’s Afterbang.

Twin tip sales have seen steady growth for several years now, and it’s easy to see why. The increased versatility of a twin combined with interesting binding developments like K2’s Schizophrenic system make for a very
interesting package. The next time you’re in the market for a pair of skis, you’ll be well served to consider a twin tip.

**Turn to Wisdom**

- Patience is the ability to keep your motor idling when you feel like stripping your gears.
- It’s better to die with a good name than to live with a bad one.
- If you don’t stand for something you’ll fall for anything!
- For the rest of the world it might be *carpe diem* (seize the day), but for us skiers and riders it has to be **CARVE DIEM**!! You’re on the snow…you’ve chosen this trail on this day…be here now…look around you…this is as beautiful as it gets! So slice it and dice it and…

**CARVE DIEM!**

**Thoughts for the Month**

- In skiing, what is the difference between inclination, leaning, and banking? Who uses what and when?
- In skiing, what is the term “long leg/short leg” referred to, and name a drill that can improve this.
- In the sport of figure skating, what “figure” are they referring to?

**Announcements**

- Will Mauney writes daily "news report" articles for the website [www.skisoutheast.com](http://www.skisoutheast.com). I encourage you to check out the Web site and read Will’s stories and updates about skiing, the weather, and info about the resorts in the Southeast and Mid Atlantic.
- Mike Simmons, <mds@i-americ.net>, is our PSIA-E Area Rep. Please, present all the comments, concerns, suggestions, and anything else pertaining to PSIA directly to him. He will take it from there.
- Remember that our Region 7 is to vote for Director and Representative to serve on PSIA-E Board of Directors. These people **VOTE** on what goes on in our association. So, please - vote. Ballot must be postmarked by March 5, 2010. Also, the Ed/Cert and Snow Sports Management Committees will be re-appointed this year. If you are interested in serving on either of these committees, please let me Mike Simmons know.
- March is an American Red Cross Month. I encourage you to donate blood. I would not be here if not for someone else’s donated blood.
- March is a National Nutrition Month. So, think what it is that you put into your month.
- **St. Patrick’s Day** is March 17. Do you know what this is all about? Do you know what shamrock has to do with it?
- Some other special days in March are: No Smoking Day on March 9, **π** (Pi) Day on March 14 (you should definitely look this one up), National Teen-Agers Day is March 21, Chocolate Covered Raisin Day is March 24 (this is MY day), and Doctor’s Day on March 30.
**Newsmakers**

- Will Mauney passed his second part of PSIA-E Level II Exam at Snowshoe, held Feb. 22–23. Will, we had no doubt that you would pass, congratulations!!!

- Mike Milligan, volunteer and Ron Scott professional ski patrolers passed their PSIA-E Level I Exam last month. Congratulations to you both. It is always great to see a cross-over between the Departments.

- We Welcome Will Mauney to our SkiSoutheast.com Team

Since Tuesday, February 2nd (Groundhog Day) Will Mauney has been handling the morning duties of posting the snow report and daily FirsTrax update.

Will is a snow loving member of our marketing staff and a natural pick to give me a much needed "assist" with the website. Will is taking over the reins of writing the posts for SkiSoutheast.com for a bit. He's is a 30 year old, snow loving friend who hails from Kings Mountain, North Carolina. Will joined our staff this past summer and he also works weekends as ski instructor and supervisor at Sugar Mountain Resort. Will has been on the snow this season more than anyone else I know personally and we think he'll do a great job of providing another take on the ski industry of the Southeast and Mid Atlantic. He assumed the duties of posting all of the snow reports and snow totals via our online Snow Report as of Tuesday morning and from your emails you guys didn't even notice - which is a good thing! I'm devoting a bit more time to my "real job" and I will be working behind the scenes to get the SkiNC and SkiSoutheast SUMMIT promotions going full blast. So join me in welcoming Will to the website. Here's a bit more info about him - in his own words.

"At age two I started skiing at Sugar Mtn. My family frequented the mountain each year and often stayed at Sugar Ski and Country Club in a condo my parents purchased before I was born. My grandparents had a summer home in Blowing Rock so went spent a lot of time visiting them. I spent my youth climbing, hiking, swimming, biking and sailing in Kings Mountain, NC and helped with the family textile business during its glory days. I was fortunate enough to have the opportunity to travel west each year and visit other mountain communities as well. Deciding on where to go for college was a no-brainer and being in the mountains was first and foremost. I started Appalachian State University in the fall of 1997 and started working at Sugar Mtn. as an instructor that winter. Skiing and teaching skiing/snowboarding has been a huge part of my life since that first season. I became a full-time instructor/supervisor/coach and clinician as the years progressed, have completed multiple certifications through the Professional Ski Instructors of America (PSIA) and continue to educate myself and others on all aspects of the snow sports industry. In 1999, I taught at Keystone Resort in CO during one of their Spring Employment Programs. This year I will complete my PSIA Level II and get a little closer to the final Level III certification. I also started coaching for the Sugar Mountain Junior Race Team that competes in the High Country Junior Race Series at Beech, Sugar, and App ski mountains. So my schedule this season is as busy as it’s ever been. 7:30am till 4pm at Appnet then 4:30pm till 8:30pm at Sugar during the week. Sat. and Sun. coaching, teaching and supervising from 8am till 8:30pm at Sugar unless we have a race at
another mountain. I guess they’ll be time to rest when the snow melts. But of course when the snow melts it’s time to go boating. I started kayaking around 6 years ago and quickly became a big fan of some of the amazing whitewater North Carolina has to offer. When the rivers are too low to kayak and the wind is blowing I’m always trying to take my Hobie Cat out to Watauga Lake to do a little sailing. If there’s no wind and no high water in the rivers it’s time to mountain bike or climb. Living in Banner Elk affords me the opportunity to take advantage of all of these “free” and “green” activities. When it’s time to relax I usually do that by playing a little piano or guitar. I finished my undergraduate at Lenoir-Rhyne University in Hickory, NC with a B.S. in Psychology and a minor in business in 2003. I will one day return to a graduate school and obtain a doctorate in psychology. For the time being I’m content skiing everyday, watching and waiting for the snow or rain to fall (depending on the season) and spending time with my fiancé and two dogs.”

You can email Will directly at: will@skisoutheast.com
Mike can be reached at: mail@skisoutheast.com

- Soldiers, soldiers, what would we do without them!? It is unfortunate, but fighting goes on in the world all the time. And when this fighting takes place in places far away from us, then often we don’t pay much attention to it or to the fact that soldiers – on who ever’s side they are on – are suffering and dying; out of sight, out of mind. We have several instructors at Sugar that are/were involved in the US armed forces. One of them is Bill Peterson, a Helicopter Crew Chief and Door Gunner in the Vietnam War for one year. He lived through it, unlike many others. In his book *Missions of Fire and Mercy*, he talks in detail about his experiences during that horrifying year. It is simply unbelievable what he, as well as many other American soldiers, went through. Some of his descriptions are almost too detailed. And how often do we wish to turn our backs to things we don’t want to see or know about? Well, Bill was in the midst of all that. He had to deal with it first hand, even had to deliver a baby when others were dying around him. Incredible! I strongly encourage everyone to read Bill’s book. Afterwards, you will thank all our soldiers for everything that they do. And, until peace rules the entire world, we need our soldiers, They have to be remembered!

By Witold Kosmala

**Marketplace**

- **Reduced price!** If you are working with kids, or you simply need to get in and out of your ski boots fast, and you want them to be comfortable and of quality, you might be interested in my rear-entry Nordica Gransport Executive Ski Boots in size 28 – 28.5 or 27 – 27.5. I have two pairs for sale and almost new.
Asking $325 for the larger boots and $175 for the smaller ones. Write me at kosma-law@bellsouth.net, talk to me at the Ski/Snowboard School, or call at:

828-719-6884

Peak Performance

Picture Extravaganza

This is our own Krista Schmidinger on World Cup at Vail in 1996. Wow!!

Doesn’t Bode Miller make great picture poses at spectacular speeds? And best of all, he saves himself and pulls out almost a winning run. Look at the tail of the ski that is in the air. Also his left boot is almost out of the binding. I wonder what his DIN number is?

“Let’s see....Don’t lean back...keep some pressure on the tips of your skis....!! (Bode in the 12/06/09 World Cup Downhill on the Birds of Prey Course at Beaver Creek Colorado. He didn’t fall and recovered from this and finished 4th)
It is great to have patrollers out there, but avoid this situation at all cost.

Parking lot at Mammoth, CA. So first, lets see, where is my car? And second, how am I to get it out...

Mammoth Lakes, California. “So, should I put the snow in my living room and build a tunnel out the front door, or should I just slide out the second story window?”
“Please, stay on the walkway.”

Kosmala family at Mammoth, CA after a snowfall.

Sierra-Neveda mountains out of a turbo propellor airplane.
One is Kim and the other is Krista. Can you tell which one is which?

"Hiking up to Tuckerman Ravine in New Hampshire. Wildcat Ski Area Below and in Background" by Gordon Carr

I wonder, is Witold trying to break in his new ski boot or his newly reconstructed leg... hmm...
Mike Simmons’ helicopter skiing in Portillo, Chile, September 2008.

He lived, but his skis didn’t.

Skki is not permitted on Sugar Mountain slopes.

Thanks to Doug Washer for providing us with this ……..

This skier is truly on top of the world.
Austria’s legendary Hermann Maier exploded on a downhill race in 1998 Olympics in Nagano, Japan, and landed on his head. He came back to win 2 gold medals a few days later. Hermann retired on October 13, 2009.

In case you were wondering what two feet of snow looks like in New York City. Amazing. (From Mike Simmons.)

These people have some awesome views, don’t you think?