



Welcome to the 2014-15 Season

Presenters

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“Develop an indoor session that will tie in with previous season’s content and provide an area of focus for this season specifically related to ski/snow interaction, framed in the context of helping participants see and feel the tool/snow interaction while relating to the new Alpine Technical Manual and the new Alpine National Standards.”

NO PROBLEM

Where have we been?

Where are we going?

How to get there?



So ... where have we been?

Stance / Balance

Movements in the the Planes of Motion

Feedback Model

Coaching Transparency

The Feedback Model

- Developed in the Fall of 2006
- Movements
- Tool/Snow Interaction
- Desired Outcome
- Communication/Coaching



Stance / Balance

Fall Training 2007: Topic Stance

1.) the position of both body and feet from which an athlete moves and/or operates

2.) The arrangement of the body and its limbs

THE ELEMENTS

- 1 Feet are hip width apart
- 2 Shins maintain forward contact with both boot tongues
- 3 Knees are slightly flexed
- 4 Back angle matches shin angle
- 5 Shoulders are rounded forward
- 6 Elbows are forward and slightly wider than the shoulders
- 7 Hands are forward, slightly wider and slightly lower than the elbows
- 8 Vision is forward

The Elements of "Awesome Stance." photo and video by Rod Parmenter.

SPRING 2013 11



The Planes of Motion

Sagittal (Fore/Aft)

Frontal (Left/Right)

Horizontal (Rotational)



Coaching

- Best Practices
- GRR
- Checking for Understanding
- The Learning Partnership



So ... where are we going?

Evolution of the Sport

Evolution of our Craft

New Alpine Technical Manual

New National Standards

Evolution of the Sport

- Race
- Freestyle
- Big Mountain

- Equipment
- Options
- Specialties



Evolution of Our Craft

- Student Centered
- Outcome Based
- Experiential

- How do you know if your students “get it?”

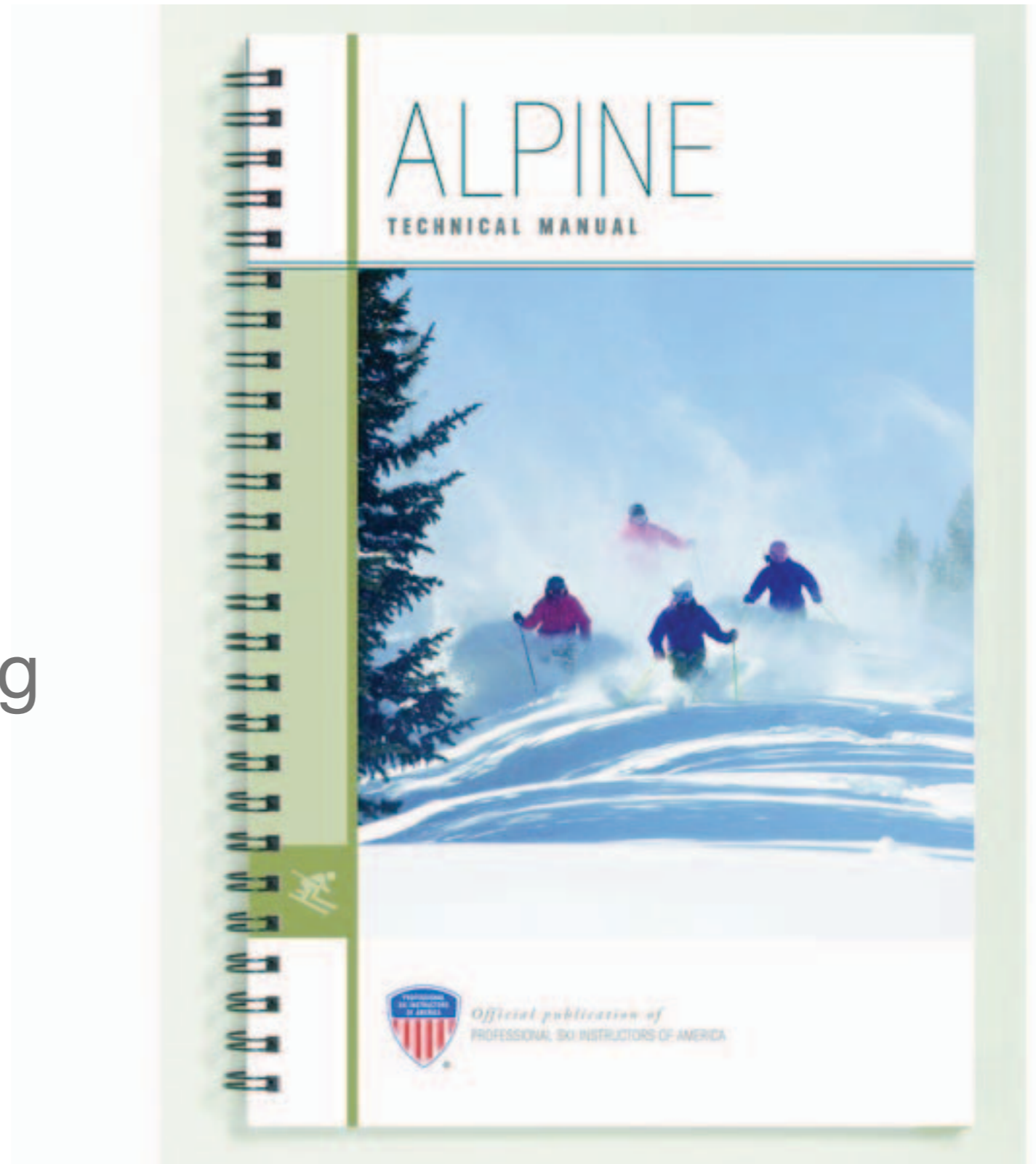
- When is it REALLY time to move to the next step?



Alpine Technical Manual 3rd Edition

- Just released
- 3 years in the making
- QR Codes / Video
- eBook Version
- Get one today!

- See Kirsten \$34.95



The Skills


Edge Control

Rotary Control

Pressure Control

National Standards 1/2014

- Effective 1/1/2014
- What's new?
- Fundamentals
- Environment,
Accuracy, Speed



Professional Ski Instructors of America

Alpine Certification Standards 2014

National Standards: Level One, Level Two, Level Three

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The Fundamentals

Fundamental #1

Control the relationship of the Center of Mass to the base of support to direct pressure along the length of the skis.

Fundamental #2

Control pressure from ski to ski and direct pressure toward the outside ski.

Fundamental #3

Control edge angles
through a combination of
inclination and angulation.

Fundamental #4

Control the skis rotation
(turning, pivoting, steering) with
leg rotation, separate from the
upper body.

Fundamental #5

Regulate the magnitude of pressure created through ski/snow interaction.

The differentiating applications of fundamentals are defined by the following categories:

Environment
Accuracy
Speed

Environment: The appropriate terrain and snow conditions for level of assessment, relative to the skill development needs for students.

Accuracy: The degree of competence and constancy in application of fundamentals relative to desired ski performance.

Speed: The ability to ski in control at speeds necessary to achieve desired ski performance for the task or demonstration.

How are we going to get there?

It will be a _____ journey.

You will need to be focussed.

You will need to be equipped with
an open mind.

Let's start the journey while skiing down the hill making some carved turns on blue groomed terrain.

Let's look at movements in the planes of motion.

Let's be equipped with an open mind.

Fundamental #1

Control the relationship of the Center of Mass to the base of support to direct pressure along the length of the skis.



Fundamental #2

Control pressure from ski to ski and direct pressure toward the outside ski.



Fundamental #3

Control edge angles through a combination of inclination and angulation.



Fundamental #4

Control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body.



Fundamental #5

Regulate the magnitude of pressure created through ski/snow interaction.



3D Montage

The initiation phase is the beginning, approximately top third of a turn. During the initiation [...], the skier steers both skis [...] by gradually tipping the skis onto their edges while simultaneously [...]. He or she extends the outside leg (over a duration of time) to direct the center of mass toward the inside of the turn. With this extension, weight is shifted from a more even distribution between both skis to increased weight on the outside ski. This extension also increases pressure on the outside ski early in the turn.

The shaping phase is roughly the middle third of the turn, from just before to just after the fall line. It's in this phase that the skis reach their highest edge angle. Here, the skier increases edge angle by further inward movement of the CM, remaining in balance with the external forces. These forces – attributed to gravity and centripetal force – build during the shaping phase when speed increases as the skis approach the fall line.

The finish phase begins roughly two thirds of the way through the curved path, or shortly after the fall line, and continues until the direction change is accomplished. As the skis continue to turn across the hill, edge angle is reduced to balance (lessen) the external forces at the bottom of the turn and to prepare for the next turn. This occurs as the skier realigns his or her CM, moving from the more inclined stance of the shaping phase and back over the feet.

Transition (not a “phase”)

The transition between turns does not occur at a single point. It is a process that begins during the finish phase of a turn as the edge angles decrease in preparation for the upcoming turn, and continues into the initiation phase as the new edges are engaged. These phases must blend together in order for one turn to flow smoothly into the next turn.



We've looked at some still images, now let's look at some video.

Skiing Samples - PSIA-NW Spring 2014 GS Camp

<https://vimeo.com/112624228>

GS Skiing Footage - Fall 2014 @ Copper Mountain

<https://vimeo.com/112624399>

What are **your** takeaways?

Being student centered, outcome based and experiential it is always best to check for understanding and find out what your audience is taking away from your presentation.

Our take-aways

- 1) Movements in the planes of motion are how we “balance”
- 2) The 5 fundamentals are present in “good skiing” at all levels but their appearance differs based on environment, accuracy and speed.
- 3) Ideally movements in the planes of motion during transition are more active in the lower legs than the torso
- 4) Functional tension (quiet upper body) is an activity that we don’t see and is essential for movements to occur in the lower legs.

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