

Big Air Snowboarding

This year a new event has been introduced into the Winter Olympics, Big Air Snowboarding.



Max Parrot, Canada, 2014 at Sochi

NBC scheduled showing of these events. Times are US Eastern Time Zone.

Feb. 18, 7:30 p.m. — Women's big air qualifying

Feb. 20, 7:30 p.m. — Men's big air qualifying

Feb. 22, 7:30 p.m. — Women's big air final

Feb. 23, 8:00 p.m. — Men's big air final

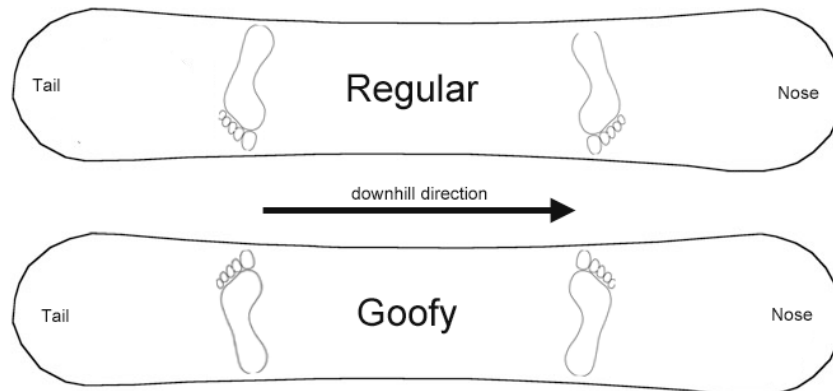
Max Parrot from Canada (shown above) performed a perfect cab 1800 triple cork at the Winter X Games in Aspen, Colorado this year.

There is a lot of snowboarding lingo in Max's first listed trick: Perfect, Cab, Triple cork, and 1800.

1. Make some guesses about what you think terms like Perfect, Cab, Triple cork, and 1800 mean?

We did some research about snowboarding. We were confused by descriptions of moves because they used words like "frontside spin" and "backside spin". Wouldn't it have been easier to just say turn left or turn right?

It turns out that people set up their snowboards differently. They have to figure out which is their dominant foot.



2. Why do you suppose the snowboard move explanation didn't say, "turn left" or "turn right"?

A frontside 180 spin means that your rotation begins with your front facing downhill. If you are a regular rider and attempting a frontside 180 then you would be turning 180 degrees counter clockwise.

3. Try to draw a simple picture of a goofy mounted snowboard making a frontside 180 spin. Use a curvy arrow to show the direction of the spin.

4. If you were a goofy mounted snowboarder making a frontside 180 spin, would your chest begin the turn facing downhill or uphill? In what way does this notion help you understand which way a frontside turn begins?

Here are a few more definitions:

- *Switch* in the description of a trick means that the snowboarder has switched and now has his dominant foot uphill instead of downhill.
 - *Cab*, in snowboarding, generally refers to any switch-frontside spin. To watch a cab spin go here: <https://youtu.be/5ULOcNtgKgg>
 - Spins are *corked* or *corkscrew* when the axis of the spin allows for the snowboarder to be oriented sideways or upside-down in the air, typically without becoming completely inverted.¹
The number following the Cork name refers to how many degrees the snowboarder rotated in the jump. A double-cork means that the snowboarder was inverted or sideways at two different times during his aerial rotation.
5. Now try to describe what you think Max Parrot's 1800 triple cork trick must be. Feel free to use either words or diagrams.

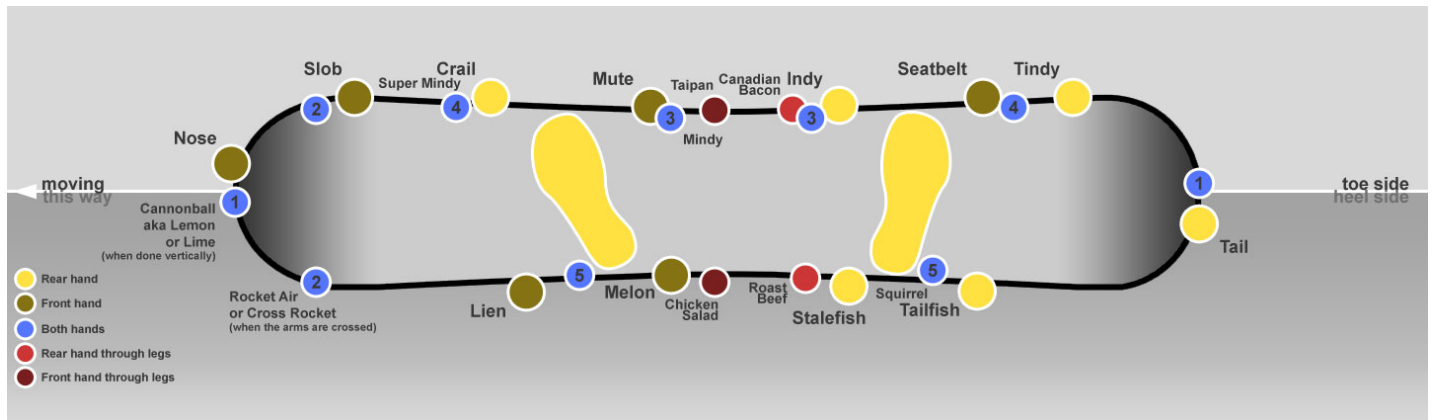
He also performed a front triple 1440.

6. What do you think a front triple 1440 is?

7. Aside from the 1800 and 1440 what are some other numbers that might be used to name certain spins on a snowboard? How do you know?

Then there are the grabs. During tricks it matters where you put your hands.

- Study the following graphic and try to describe one grab that either has an interesting name or requires some serious contortion.



Extension: The following are some of the more intriguing names that we found for snowboarding maneuvers. Choose a term and try to describe it with words and/or diagrams.

Shifty	Back Flip	Poptart	Butter
McTwist	Pretzel	Ollie	Or any other tricks that grab your fancy.

Sources: <https://www.scientificamerican.com/article/olympic-big-air-snowboarders-use-physics-to-their-advantage/>
<http://www.nbcolympics.com/news/introduction-big-air-snowboarding-new-event-2018-pyeongchang-winter-olympics>
¹https://en.wikipedia.org/wiki/List_of_snowboard_tricks