

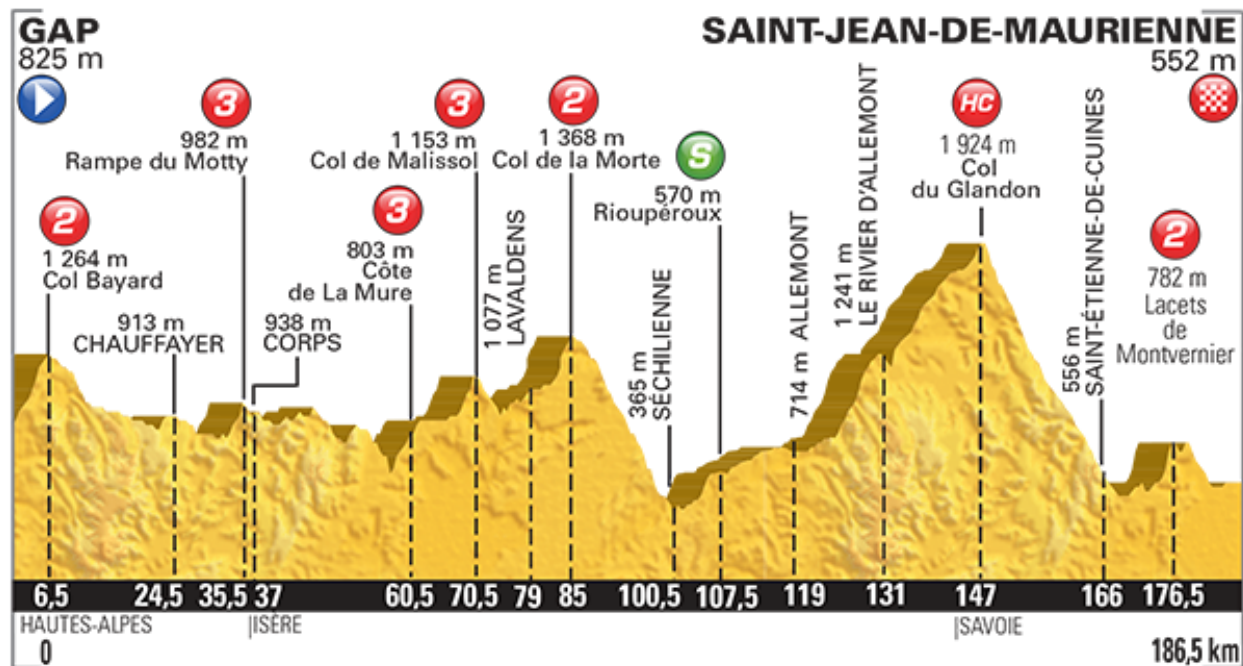
Created by **Tom Scotto**
Training Type: **Race Simulation**
Working HR Zones: **Zone 3 to Zone 5c**
Total Class Length: **60 minutes**



Profile Overview

This stage is the second of four consecutive days in the Alps. In a strange way, Stage 18 is Stage 17's big brother; both begin with a smattering of Category 2 and Category 3 climbs, include an intermediate sprint, and end with a big climb followed by a Category 2 climb at the finish. From a climbing perspective, Stage 18 is more difficult. The average grade of the five categorized climbs of Stage 17 ranges from 3.1% to 6.5%. Six of the seven climbs of Stage 18 are above an average grade of 7%.

I found it too onerous to squeeze every kilometer of excitement into 60 minutes. Taking a lesson from the Tour de France TV coverage playbook (they often only show highlights from the first half of the stage), I decided to pick up the action at the base of the Col du Glandon.



Profile Objective and Intensity

Simply put, the profile objective is to survive. The intensity is...well...very intense. If we were in vacation mode, this profile would consist of a healthy dose of muscular endurance. However, we are not in vacation mode but rather in Tour de France tactical destruction mode.

A 7-minute warm-up is followed by a 21-minute HC climb (Hors Catégorie, or so hard it's beyond categorizing!), a short downhill and flat road, an 11-minute Category 2 climb, then a fast downhill and a sprint to the finish. Over half of the profile is climbing.

The 21-minute climb up the Col du Glandon is similar to a sucker punch to the quads, demanding riders teeter between Zone 4 and Zone 5 (although their legs will feel as if they have their own Zone 5). Even though the last climb is only a Category 2, it is nothing to be trifled with; it contains eighteen laces and seventeen switchbacks at an average grade of 8.2%. It is not called the Lacets de Montvernier for nothing. Each of the seventeen switchbacks will feel as if someone is trying to unscrew your legs at the hip. Take a minute and allow that visual to marinate.

The final descent, approach, and sprint for the finish will be nothing short of an inferno of lungs and unrecognizable charred leg muscles. If there were such a thing as Zone 6, it would be found

in the last 2 minutes. In case you are trying to envision what Zone 6 would look like, just imagine a very dark place.

A Few Words about Gap

While finishes in Gap have often produced quite a show, the stages that left the town have also struck all generations of cycling fans. After the Gap-Digne period, several Gap-Briançon stages entered the history books, especially in 1953 when Louison Bobet took off up to the Col d'Izoard to go on and conquer the yellow jersey. In 1970, Eddy Merckx, after starting from Gap, would drop all his GC rivals on his way to the top of the Mont Ventoux. In recent times, a series of stages between Gap and l'Alpe-d'Huez occurred, including the last episode in 2013 when Christophe Riblon managed a spectacular masterpiece.

A Few Words about Saint-Jean-de-Maurienne

In 2010, the only time the Tour de France finished in Saint-Jean-de-Maurienne, it was full of emotion, especially for Sandy Casar who claimed a victory built on athletic power and on real tactical sense. After breaking away early in the day, he only had Luis Leon Sanchez and Damiano Cunego at his side in the final kilometer when victory would be decided. Against the Spaniard who had beaten him a year back in Saint-Girons, Casar eventually had the upper hand.

The Basic Storyline

We pick up our story approximately 20 kilometers after the intermediate sprint. The peloton has stayed together over the preceding climbs, but the tension is high as they approach the Col du Glandon.

The Col du Glandon starts out with grades of 6% to 10%. Attacks are not necessary. The climbing specialists simply go to the front of the peloton and do what they do best. Their relentless tempo causes multiple splits in the field. The climb uncharacteristically contains two downhill sections before arriving at the top. The first will throw riders into an 11% wall and the second will supply the launch pad for an aggressive finish.

A long descent and approach to the final Category 2 climb provide an opportunity for many of the riders in the peloton to regroup.

The Lacets de Montvernier will provide more fun than a barrel of monkeys (on bikes). It possesses eighteen “lacets” (French for shoe laces, or switchbacks on a climb) connected by seventeen switchbacks; at an average grade of 8.2%; riders will feel as if they are trapped in a tornado from hell. Small groups of riders will be scattered along the entire climb. Considering the simultaneous view of many of these “laces”, this could be one of the best spectator opportunities in the entire Tour.

A small lead group of riders are able to regroup on the descent and prepare for a blistering entry and final sprint in Saint-Jean-de-Maurienne.

If You Like Structure!

This may be one of the most structured profiles I've created to date. A cue is provided for each of the 21 kilometers and grade changes on the Col du Glandon; the climb is also 21 minutes long.

After looking at stats of riders who have climbed *Lacets de Monternier*, I observed that many of the faster riders completed the ascent in 10–12 minutes—thus I made the climb 11 minutes. Instead of giving cues per minute, they are provided per switchback: seventeen in all.

If you are one of those instructors that loves the excitement and drama of cueing in sync with the rhythm and emotion of music, you will drool over this profile. Everything is timed to the music for maximum effect. However, the many cues and timings can be a challenge to keep track of. This is a perfect job for Class Builder (and an extra cup of coffee).

Warm-Up

Trickle, Hibernation, 7:24, 90 rpm

Welcome to Stage 18 of the Tour de France. Today's race starts in Gap and finishes in Saint-Jean-de-Maurienne. However, we are going to start after the halfway point. Why? Because there is just too much excitement to jam into 60 minutes.

We are going to focus on two of the major challenges in this stage: the beyond category climb up the Col du Glandon and the tornado-like ascent up the Lacets de Montvernier.

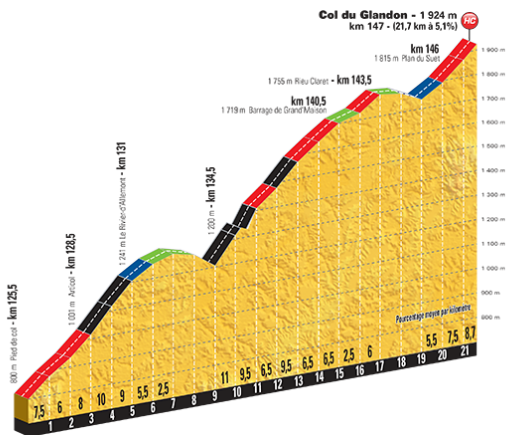
The Col du Glandon is a brutal climb that reaches 1,924 meters (6,312 feet) with an average grade of 5.1%. It will take us 21 minutes to reach the top.

After a long downhill and fast rolling road we will find ourselves on the Lacets de Montvernier. This is an 11-minute climb with seventeen switchbacks (show a photo if possible). The winding road and 8.2% grade will attempt to rip your legs and lungs from your body.

If that were not enough, we must then descend like demons for the final approach and sprint in Saint-Jean-de-Maurienne.

Strap yourselves in for over 30 minutes of climbing wrapped in a ball of fire.

Col du Glandon-1924 m (6,312 ft), 21.7 km (13.5 mi), Cat H at 5.1%



With little delay, it is time to climb. Each kilometer and change in grade is captured on this 21-minute ascent.

The peloton is together as riders hit the base of the climb, but this is about to change abruptly.

Target intensity for the climb is just under threshold with attacks and accelerations driving heart rates into Zone 5

The Col du Glandon is divided into parts with two short downhill sections. Encourage riders not to get too comfortable during the descents, but to remain mentally strong to prepare for the steep efforts that lie ahead.

Hello, Legs

Resurrection of the Dagger, Varien, 5:53, 65 rpm

0:00 (7.5%) *Welcome to the base of the Col du Glandon. Even though we are just over 7 minutes into this profile, try to imagine that you have already tackled five climbs and an intermediate sprint.*

Set the initial tempo on the climb with a target intensity just under threshold (80%–85% RPE). There will be a number of changes in cadence and effort en route to the top, but do your best to establish a sustainable rhythm.

The peloton has been together until now. The climbers on each team have moved to the front to begin driving the pace. It is time to put your big boy or big girl gears on!

1:00 (6%) *Ease back on your resistance slightly as the pitch of the road changes from 7.5% to 6%. As the road changes, do your best to stay calm.*

2:14 (8%) *Add resistance as the grade increases to 8%. Although the changes in grade may appear small, even a 1% change can be the difference between sustaining a sub-threshold (Zone 4) effort and being cast into Zone 5.*

3:15 (10%) *Add more resistance and come out of the saddle. The climbers are licking their chops because this is their playground. You should feel the taste of Zone 5 on your lips.*

4:15 (9%) *The pitch of the road eases only slightly to 9%. Return to the saddle and keep your pace steady. Behind you large groups of riders are slowly (and some not so slowly) disintegrating.*

5:15 (5.5%) *Back off further, but remain in Zone 3 as the grade drops to 5.5%. Do not become complacent, as the lead group of climbers will use that to their advantage. All is fair in love and climbing.*

Not the Top / Fast Downhill

Back On a Mission, 3:38, 105 rpm

0:00 (2.5%) *We are cresting the top of the first section. This is practically a false flat. Riders are standing and stretching and maintaining tempo.*

1:12 (--) *The first reprieve in a grueling climb. We get to “enjoy” 2 minutes of easy pedaling as the road turns downward.*

Normally, the riders in the Tour de France will be in white-knuckle mode as they fly downhill and carefully navigate sharp turns. We instead will target a fast cadence between 90 and 105 rpm to flush the legs and keep the mind and body engaged.

Punch in the Legs

Turn Up, Gent & Jaws, 3:06, 73 rpm

0:00 (11%) *Who put that wall there?! The downhill is abruptly terminated with an 11% grade. Climber or not, this hurts.*

The few riders that caught onto the lead group are quickly ejected once again. Sadistic climbers use steep sections such as this to show their dominance. Riders are acutely aware of the head games played during a race. These include breaking the mental strength of as many riders as possible. The goal is to establish psychological superiority over other riders and limit the competition at the finish.

1:05 (9.5%) *The road eases slightly to 9.5%, but at this pace it does not provide much comfort. Return to the saddle and try to keep from exploding. If there is such a thing as an easier Zone 5, this is it.*

2:11 (6.5%) *The road backs off further to 6.5%, but the pace picks up as riders come out of the saddle in an attempt to keep from getting left behind.*

Some climbers enjoy and manipulate the torturous grade and tempo changes to their advantage. Other climbers prefer long, steady climbs. The question is, which type of climber are you?

Two Aggressive Attacks

Speedway (Theme from Fastlane), The Prodigy, 6:24, 72 rpm

0:00 (9.5%) *No rest for the weary. The road returns to 9.5% as a sinister grin returns to the faces of the leaders. Add resistance and stand.*

1:25 (6.5%) *The grade decreases to 6.5%, providing an opportunity to pull out of Zone 5. However, something else is brewing. The lead group still contains nine riders, which is too many for those with aspirations of capturing maximum climbing points at the top.*

1:40 (6.5%) *One rider initiates an aggressive attack (~45 seconds / 1:40 – 2:31) and everyone tries to follow. Until now, membership in the lead group was free; now you must pay the price if you want to remain. Three riders fail to make the cut. We are now a group of six.*

2:32 (2.5%) *The steepness of the mountain decreases to 2.5%. You need to try to find Zone 4 somewhere under the smoke and burning ash of Zone 5.*

3:12 (6%) *As soon as the road returns to 6% another rider attacks. It is a short 15-second burst that is enough to send another rider over the edge, reducing us to a group of five.*

3:53 (--) *We start to go downhill again and know that we have completed the second part of the climb. That pleasant thought is disturbed by the knowledge of the remaining kilometers; the final section is approximately 3 minutes of savage strength.*

4:46 (5.5%) *Add resistance and snap your muscles back to attention. The approach to the summit begins at a 5.5% grade. You are trying hard to keep your heart rate just below threshold because you know the final 2 minutes will demand a solid Zone 5 effort.*

2 Kilometers to the Summit

Shutemdown, Celldweller, 2:22, 70 rpm

0:00 – 0:28 (7.5%) *Start loading the resistance. The mountain is angry.*

0:29 – 1:09 *Full battle mode! The road kicks to 7.5% and you respond out of the saddle.*

1:10 – 1:45 *Return to the saddle and continue to drive the pedals. You know there will be one more attack before the summit. You must mentally commit to give all you have.*

1:46 – 2:17 (8.7%) *As expected, but still as painful, you are one of three riders that surge for the top of the climb. The mountain tries one more time to break you and rises to 8.7%. You will not yield and instead claim your points at the summit.*

Descent

Pivot Feat. Lana Quish – JPN Mix, Chris Zippel, 5:47, 120 rpm

Enjoy a 20-kilometer descent!

For the next 5 minutes I encourage you to do your best to recover your heart rate and try to return to Zone 2.

As I mentioned earlier, a downhill section such as this would involve neck-breaking speeds and excellent bike handling skills. Riders who fell back on the Col du Glandon will be taking risks on the descent to catch back on.

This is a perfect opportunity, and possibly your last opportunity until the finish, to hydrate.

We will perform three to four short 20-second accelerations to flush out the legs and prepare them for the last climb.

These accelerations are not intended to drive your heart rate above Zone 3. Pedal smoothly and stay under control. Do not exceed a cadence of 120 rpm.

Rev The Engines

Mustang Nismo, Brian Tyler, Slash, 2:24, 100 rpm

Ready or not, tired or not, it is time to rev the engines as we approach the final climb.

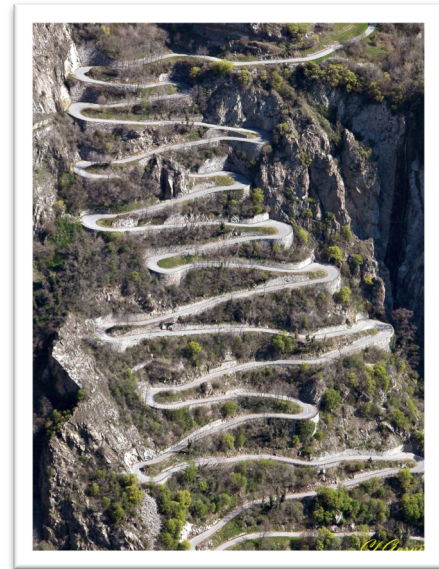
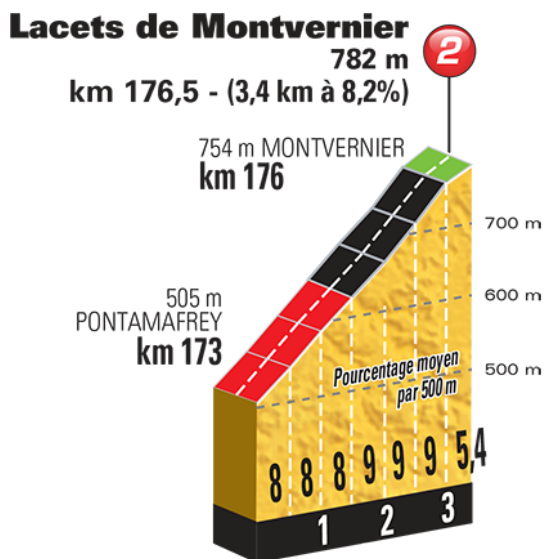
Add resistance and begin increasing your intensity steadily to Zone 4.

We are racing to the base of the Lacets de Montvernier. The snake-like road is narrow so being in a good position at the start is a good strategy.

On the long descent, fourteen riders were able to catch the lead group, which now totals nineteen.

Lacets de Montvernier—782 m (2,566 ft), 3.4 km (2.1 mi), Cat 2 at 8.2%

A cue is provided for each of the eighteen laces or seventeen switchbacks, depending on your perspective. On most you will briefly stand and surge; others you can accelerate from the saddle.



Warrior of the Night – Original Mix, Aero Chord, 4:14, 70 rpm

0:00 (Lace 1) *We are on the first of eighteen laces, like the laces of a sneaker. In order to reach the top, we must traverse seventeen switchbacks. We will stand for the first 10 seconds of each switchback. The road kicks up to 8% and once again we are hanging perilously on the upper edge of Zone 4.*

1:11 (1st Turn-R, Lace 2) *Into the first turn and onto lace number 2. Come out of the saddle and power through the sharp right-hand turn.*

1:39 (2nd Turn-L, Lace 3) *Second switchback. Stand and take the left-hand turn with power. We have only just begun.*

2:35 (3rd Turn-R, Lace 4) *As you enter right-hand turn of the third switchback you stand and look over your left shoulder to see riders scattered on the three laces below.*

3:01 (4th Turn-L, Lace 5) *Into switchback 4, a left-hand bend. You realize attacking is pointless. Your strategy must be to ride as hard and steady as possible. You are only on the fifth lace and much use your energy wisely.*

3:42 (5th Turn-R, Lace 6) *Stand into the right-hand turn, number 5. The already narrow roads are restricted further by frenzied spectators. You need to remain focused and ignore the sheer rock wall on your left, and especially the cliff on your right.*

Claustrophobic Sting, The Prodigy, 7:12, 74 rpm

0:36 (6th Turn-L, Lace 7) *As we approach the sixth turn we add resistance because the grade increases to 9%. We jump out of the saddle and power around the left-hand bend onto lace 7. The mountain appears to be mocking you.*

1:40 (7th Turn-R, Lace 8) *Standing around the seventh switchback, your mind wanders from the relentless coil, loud spectators, and dizzying heights to realize you are one of three riders in the front group. Ten seconds back are two more riders, and then a group of four behind them.*

2:06 (8th Turn-L, Lace 9) *Stand into turn 8 and onto lace 9. You are now aware that Zone 5 has overtaken you. You must do everything possible to maintain your current tempo while not raising your heart rate above the point of no return.*

2:32 (9th Turn-R, Lace 10) *Approaching the ninth switchback you make the mistake of looking up to the right to see the laces that lie above. From this angle, the road looks like a series of unrideable steps. Stand into the right-hand turn and focus your eyes on lace 10.*

2:57 (10th Turn-L, Lace 11) *Stand into turn 10 and try to stabilize your breathing... again.*

3:36 (11th Turn-R, Lace 12) *Into turn 11 we realize we are putting distance on the two riders behind us. We are working well with our two spiraling companions.*

4:01 (12th Turn-L, Lace 13) *Approaching turn 12, we realize the laces are becoming shorter. The top is getting nearer!*

4:27 (13th Turn-R, Lace 14) *Powering around the right-hand bend of the thirteenth switchback you feel the attrition from the laces below.*

4:52 (14th Turn-L, Lace 15) *Into turn 14 and onto lace 15. The best thing we can do when the fatigue of a day of racing begins to take hold is return to our form. This is not the time for wasted movement and wasted energy.*

5:18 (15th Turn-R, Lace 16) *As you stand and round switchback 15, you notice over your right shoulder that there are now three riders starting to close in behind you.*

5:56 (16th Turn-L, Lace 17) *Stand into turn 16. Remind yourself that the race is not won at the top of the climb; there is still a descent and fast approach to the finish to contend with. Remain steady. Strategy must prevail.*

6:22 (17th Turn-R, Lace 18) *Accelerate around turn 17 as the grade eases up to 5.5%. We climb past the hexagonally shaped Chapelle Notre-Dame-de-la-Balme and prepare to descend to the finish.*

Descent

ShowStopper, TobyMac, 2:51, 100 rpm

If we have any chance of winning this race we need to keep the pedal to the metal on this short downhill.

Try to return from Zone 5 as fast as you can, but do not expect your heart rate to drop below Zone 3. Ideally, stay in Zone 4 with a high cadence. This is our best chance of fending off muscle fatigue and total shutdown. We must save something for the final sprint.

Even though riders were spread along the sinuous slope of the Lacets de Montvernier, the gaps between the riders can be easily closed on the descent.

As we get closer and closer to the bottom, we realize that a small group of ten to twelve riders will form to contend the stage.

Sprint Finish!

Nineveh, E.S. Posthumus, 3:42, 90 rpm

Two kilometers to go!

Twelve riders have made the cut for the lead group assaulting Saint-Jean-de-Maurienne.

Keep the pace steady and fast. To remain in this group, you must ride slightly above your threshold.

If the pace slows down, the decrease in speed will provide an opportunity for riders to attack. We must discourage this at all costs.

Any time you sense that your intensity is dropping, get out of the saddle and accelerate.

2:55 The pace picks up again as we get ready to explode to the line.

3:16 – 3:37 3–2–1 Go! The sprint to the finish launches like a runaway train. You are concerned with nothing but ripping every ounce of energy from your body.

Your display of raw power and unbridled determination was far more inspirational than knowing who actually won the stage.

Cool-Down

B2, Banco De Gaia, 6:17, 83 rpm

Riders in your class will be slumped over their bikes; some will be pedaling in a daze. The intensity and approach to the finish was borderline barbaric. Let them enjoy their endorphin-induced stupor. Let them revel in their accomplishment.

I find it fun to walk around the class after a stage like this and interview riders. I ask them which parts of the race were most difficult and how they felt during the final sprint. If I know they have a friend in class or have a good rapport with a rider close to them, I will make stuff up like, “So Susan, you looked downright determined to catch Mary when she attacked on the Col du Glandon. What was going through your mind at that point?”

As always, encourage everyone to take time to stretch after class, and to stay hydrated and eat something within the next hour. Either way, they will most certainly take your name in vain.

Stage 18 Playlist

Section	Music	BPM	Time
Warm-Up	Trickle Hibernation	90	7:24
Col du Glandon Hello, Legs	Resurrection of the Dagger Varien	65	5:53
Col du Glandon Not the Top / Downhill	Back On a Mission CIRRUS	105	3:38
Col du Glandon Punch in the Legs	Turn Up Gent & Jawns	73	3:06
Col du Glandon Two Aggressive Attacks	Speedway (Theme from Fastlane) The Prodigy	72	6:24
Col du Glandon 2 Kilometers to the Summit	Shutemdown Celldweller	70	2:22
Descent	Pivot Feat. Lana Quish –JPN Mix Chris Zippel	120	5:47
Rev the Engine	Mustang Nismo Brian Tyler, Slash	100	2:24
Lacets de Montvernier	Warrior of the – Original Mix Aero Chord	70	4:14
	Claustrophobic Sting The Prodigy	74	7:12
Descent	ShowStopper TobyMac	100	2:51
Sprint Finish!	Nineveh E.S. Posthumus	90	3:42
Cool-Down	B2 Banco De Gaia	83	6:17