Stages 1-16

# Defending the Yellow Jersey

During the first **16 stages** covering **2,922 km** the riders were affected by severe wind gusts of up to **80 km/h** and have conquered **45 climbs** so far in this year's Tour de France. Here's a look at some of the stories powered by data we've collected on their journey so far.

**Stages 1-16**
2-18 July 2016

**607 km**
to finish line in Paris

**83%**
race distance covered

**183 km**
average distance travelled each day (stages 1-16)

**37.5 km**
longest individual time trialled in one day - stage 13

**44.78 km/h**
fastest average speed on the stage Dumoulin (TGA)

**237.5 km**
longest distance travelled in one day - stage 9

**43.38 km/h**
average speed of stage winner Kittel (FDJ)

**47.0 km/h**
highest average speed on a stage (stage 10)

**05h 59' 54"**
longest time on the saddle (stage 3)

**39.16 km/h**
average speed of riders across 16 stages

**15**
abandons

## Defending the **Yellow Jersey**

**40.21 km/h** average speed of race leader Christopher Froome (SKY) over 16 stages

Stage 8

Froome attacked on the descent of Col de Manse and shakes the legs of Valverde. The Yellow Jersey responds and has gapped Valverde 01'14" by the finish.

Stage 9

Team Sky dominated over 5 of the 7 climbs out of 58 in the lead group. Froome had the penultimate attack.

Stage 11

Peter Sagan (TNK) and Froome attack on the Col de la Croix de Cuers 12 seconds.

Stage 12

Team Sky and Froome dominated on Mont Ventoux until incident with motor bike.

Stage 13

Froome puts 1'17" over runner-up Mollema (TFS) in the individual time trial.

**01' 47"** time difference between Froome and runner-up, Mollema (TFS) after 16 stages.

## Battling the **elements**

**This is the first year in which we tracked weather information.**

Up on the last 17km of the final climb, avg. gradient 7.4% and temperature drops by 10%.

High-wind speeds in excess of 80 km/h hit the 20 km of the last Pyrenean stage in the stage with an avg. speed of 47.2km/h.

Julian Alaphilippe (QSS) crashes 15 km from the finish, in the individual time trial on stage 13 in wet roads with crosswinds of 42 km/h.

Start time was moved 15 minutes forward due to strong headwinds.

Wind of 140 km/h on Mont Ventoux forced organisers to shorten the stage by 6 km.

Mark Renshaw (QSS) crashes 20 km from finish line at 56.3 km/h and crossed scariest of 4 km/h.

**259.3 km**
total distance over categorised climbs

**25.49 km/h**
average climbing speed of all riders across all recorded climbs

**27.84 km/h**
average climbing speed of Froome across all recorded climbs

## **Mont Ventoux**

**toughest mountain climb so far - based on gradient, elevation and weather conditions**

9.4 km at **9.3%** average gradient | **899 m** elevation | wind speed of **40 km/h**

**14.8 km/h**
average climbing speed of stage winner Thomas DeGendt (LTS)

**12.72 km/h** lowest recorded average climbing speed

## Fastest speed in the individual **time trial**

**44.78 km/h**

Tom Dumoulin (TGA)

Individual time trial speed difference between stage winner Tom Dumoulin (TGA) and Christopher Froome (SKY)

**Dumoulin vs. #MaillotJaune**
Difference in speed between Dumoulin and Froome on PT

La Caverne du Pont-d'Arc

Dumoulin faster

Froome faster

Speed Difference (km/h)

#TDFdata

powered by Dimension Data

## Average speed on each stage by **Amaury Sport Organisation (A.S.O.) classification**

Stages 1-16

**Flat**
Stage 1 44.2km/h
Stage 2 43.1km/h
Stage 5 37.1 km/h
Stage 8 42.1km/h
Stage 11 40.2km/h
Stage 14 39.1km/h
Stage 15 40.1km/h
Stage 16 40.4km/h

**Hilly**
Stage 10 41.8 km/h

**Mountain**
Stage 3 36.8km/h
Stage 7 39.4 km/h
Stage 9 34.8km/h
Stage 12 32.4 km/h
Stage 13 37.7 km/h
Stage 15 33.7 km/h

**Individual time trial**
Stage 13 40.8km/h
Stage 16 40.4km/h

## Fastest and slowest **teams by stage**

Movistar leads the team classification after stage 16 but hasn't won a single stage, while Dimension Data has grabbed 5 victories without being the fastest team on any stage.

| Stage | Fastest team on the stage | Average speed km/h | Slowest team on the stage | Average speed km/h |
|---|---|---|---|---|
| 1 | Lotto-Soudal (LTS) | 44.4 | Bora-Argon (BOA) | 44.4 |
| 2 | Orica-BikeExchange (OBE) | 42.1 | Lotto-Soudal (LTS) | 41.7 |
| 3 | Lotto-Soudal (LTS) | 37.3 | AG2R La Mondiale (ALM) | 37.3 |
| 4 | Team Lotto NL - Jumbo (TLJ) | 39.5 | Lotto-Soudal (LTS) | 39.4 |
| 5 | BMC Racing Team (BMC) | 38.7 | Team Dimension Data (DDD) | 37.0 |
| 6 | Etixx - Quick Step (EQS) | 40.3 | FDJ (FDJ) | 40.3 |
| 7 | Lotto-Soudal (LTS) | 42.2 | Lotto-Soudal (LTS) | 40.3 |
| 8 | Team Sky (SKY) | 37.0 | Dimension Data (DDD) | 33.5 |
| 9 | Movistar (MOV) | 34.4 | Direct Energie (DEN) | 32.7 |
| 10 | Orica-BikeExchange (OBE) | 44.9 | Cofidis (COF) | 43.4 |
| 11 | Tinkoff (TNK) | 47.2 | Cannondale-Drapac (CDT) | 46.7 |
| 12 | Movistar (MOV) | 38.4 | Tinkoff (TNK) | 36.9 |
| 13 | Movistar (MOV) | 43.0 | Cofidis (COF) | 39.9 |
| 14 | Orica-BikeExchange (OBE) | 36.4 | Cannondale-Drapac (CDT) | 36.2 |
| 15 | AG2R La Mondiale (ALM) | 35.9 | Lotto-Soudal (LTS) | 34.4 |
| 16 | BMC Racing Team (BMC) | 47.14 | Direct Energie (DEN) | 46.72 |

## Social media **engagements**

Top 3
**data visualisations on @letourdata**
powered by Dimension Data

1.

2.

3.

> click to see tweet

> click to see tweet

> click to see tweet

## Our mobile office **on the road**

Our big data truck is parked in the Tour de France technical zone and is where our technical and social media teams work every day of the event.

> **Watch this video** to see what it takes to operate as part of a global team in an office that moves every day.

| As office space for **22 people** in our on-the-ground technical, social and support teams | Total distance travelled to us **3,858.5 km** | Total hours spent on the road to us **60.5 hours** | Weight of our mobile data centre and office **39.2 tonnes** |
|---|---|---|---|
| **2 hours** to set up and take down each day | **12** number of collaboration tools used in the truck to bring our teams together while they work across different geographies, time zones and environments | | **10** number of Access to Yellow pass |
| **24 hours** extra photographic and testing tasks to ensure our solution adapts and thrives in the erratic landscape that is the Tour de France | | | |

## It's all in the cloud when it comes to **big data analytics at the Tour de France**

Instant computing power and scalability to deal with unpredictable race environment

**100.7 million**
total data records processed so far

**3x more data**
being processed than 2015

> **Watch this video** to find out more about how we use Dimension Data's cloud platform to deliver the analytics solution.

## Daily life in the technical zone **at the finish line**

**5,000 m²** of space needed to set up the technical zone

**500 people** from the TV production teams

**2 video** helicopters

**60 km** of cable rolled out on average

**5 video** motorcycles

**1 HF** relay helicopter

**120** trucks

**2 sound** motorcycles

**2 HF** airplanes

**90 commentators** from 20 different nationalities in the grandstands

Source: A.S.O.

## For more **information**

> **Learn more** about making the world's first digital Tour de France on our microsite

> **Subscribe** to receive the daily Analytics in Action blog

> **Follow** @letourdata for live race data