

Hybrid Assistant Report

Info	
Car model	Prius 4
VIN	JTDKB3FU303-----
Odometer	Not available
Generated at	23/07/2017 19:54:35
Version	HA:84 HR:40

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[Trip summary](#)

Time	
Start	03/07/2017 19:45:39
Finish	03/07/2017 23:15:41

Trip	Total	EV	EV %
Distance	162.69 km	103.46 km	63%
Time	3:30:01	2:23:10	68%
Moving	3:18:02	2:10:10	63%

Speed	
Average	46 km/h
Moving Average	49 km/h
EV Average	43 km/h
Max	80 km/h

Environment	
Start SOC	40.78%
End SOC	44.31%
Avg Ambient Temperature	0°C
Altitude Delta	-37

Fuel	
Consumption	2.352 L/100km
Usage	3.827 L
Cost	5.741

Trip summary values are detailed by Time, Moving and EV.

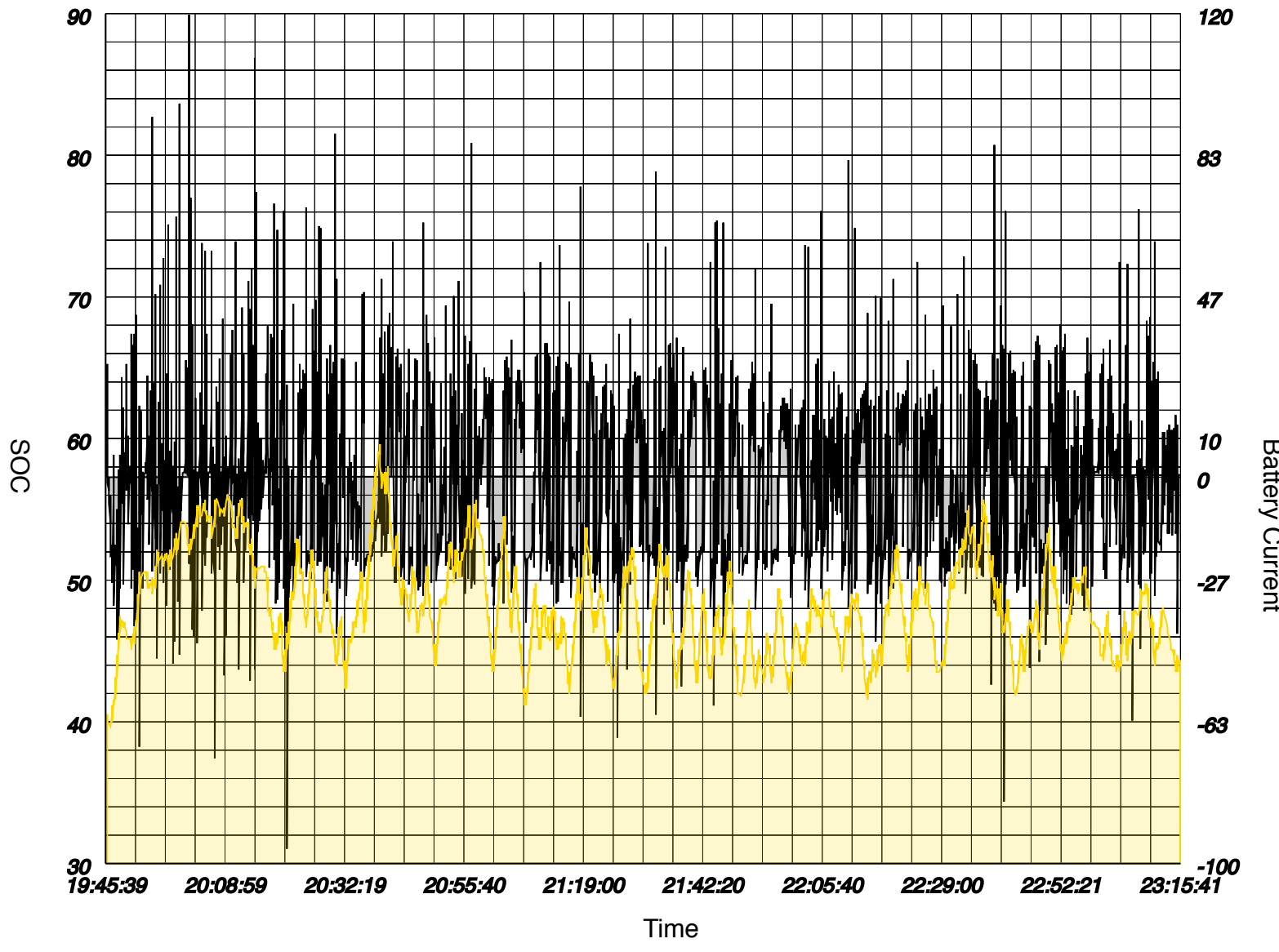
Time is the total trip time.

Moving stats regards only the fraction of time while the car was not standing still.

EV stats are accounted only when the petrol engine is stopped.

SOC Statistics

SOC



— SOC
— Battery Current

SOC	
Average	48.36%
Start	40.78%
End	44.31%
Delta	3.53%
Min	39.61%
Max	59.61%
Standard deviation	3.51%

Variations	
Difference from optimum	-11.64%
SOC gained from brakings	0.00%
SOC gained from coasting	115.69%
Total SOC gained	115.69%
SOC charged by ICE	309.41%

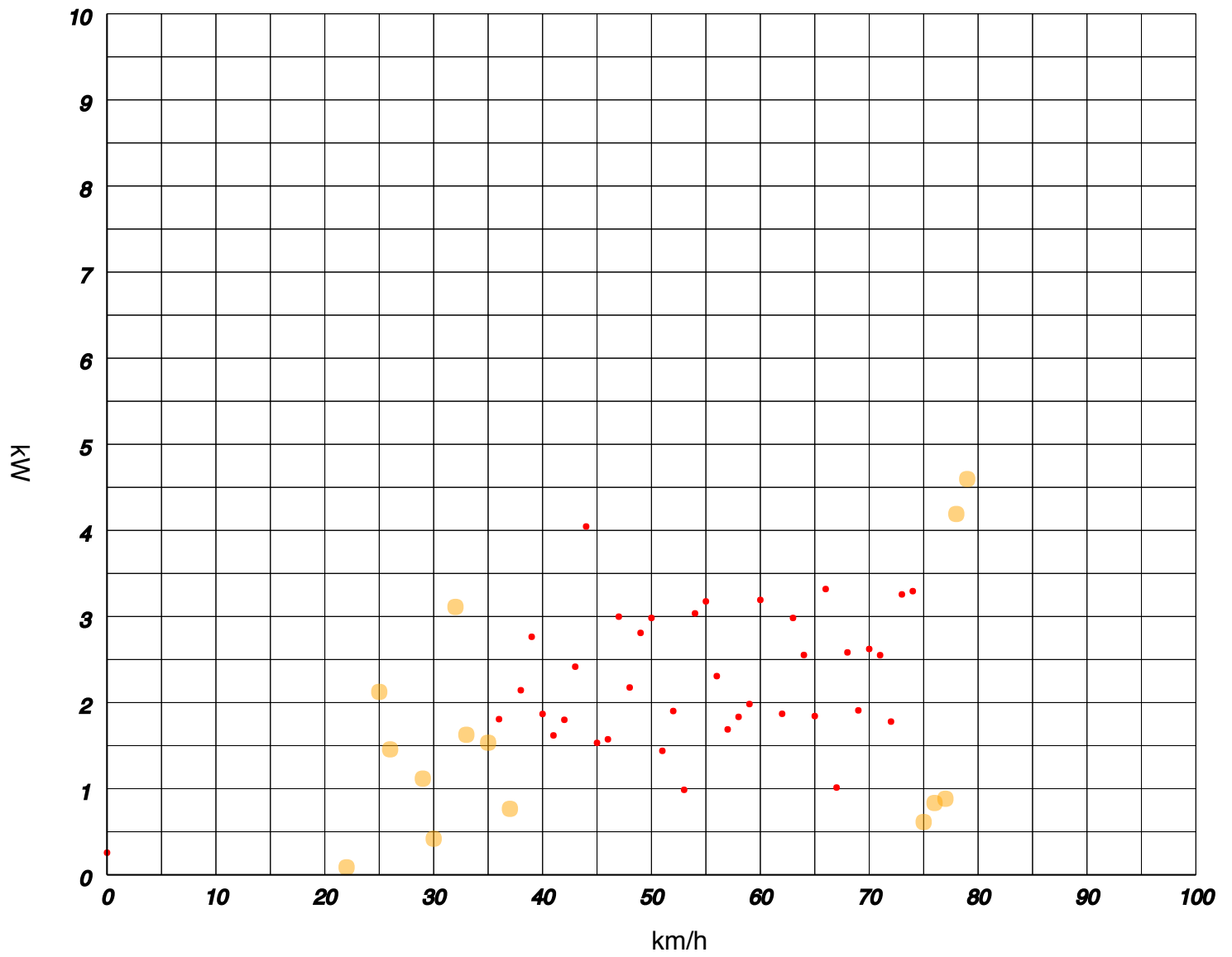
High Voltage Battery Statistics

Levels		
	Current	Voltage
Avg	0.01 A	223.49 V
Min	-96.20 A	191.00 V
Max	119.70 A	255.00 V

Power	
	Power
Avg	-0.123 kW
Start	0.397 kW
End	0.087 kW
Min	-24.567 kW
Max	23.461 kW

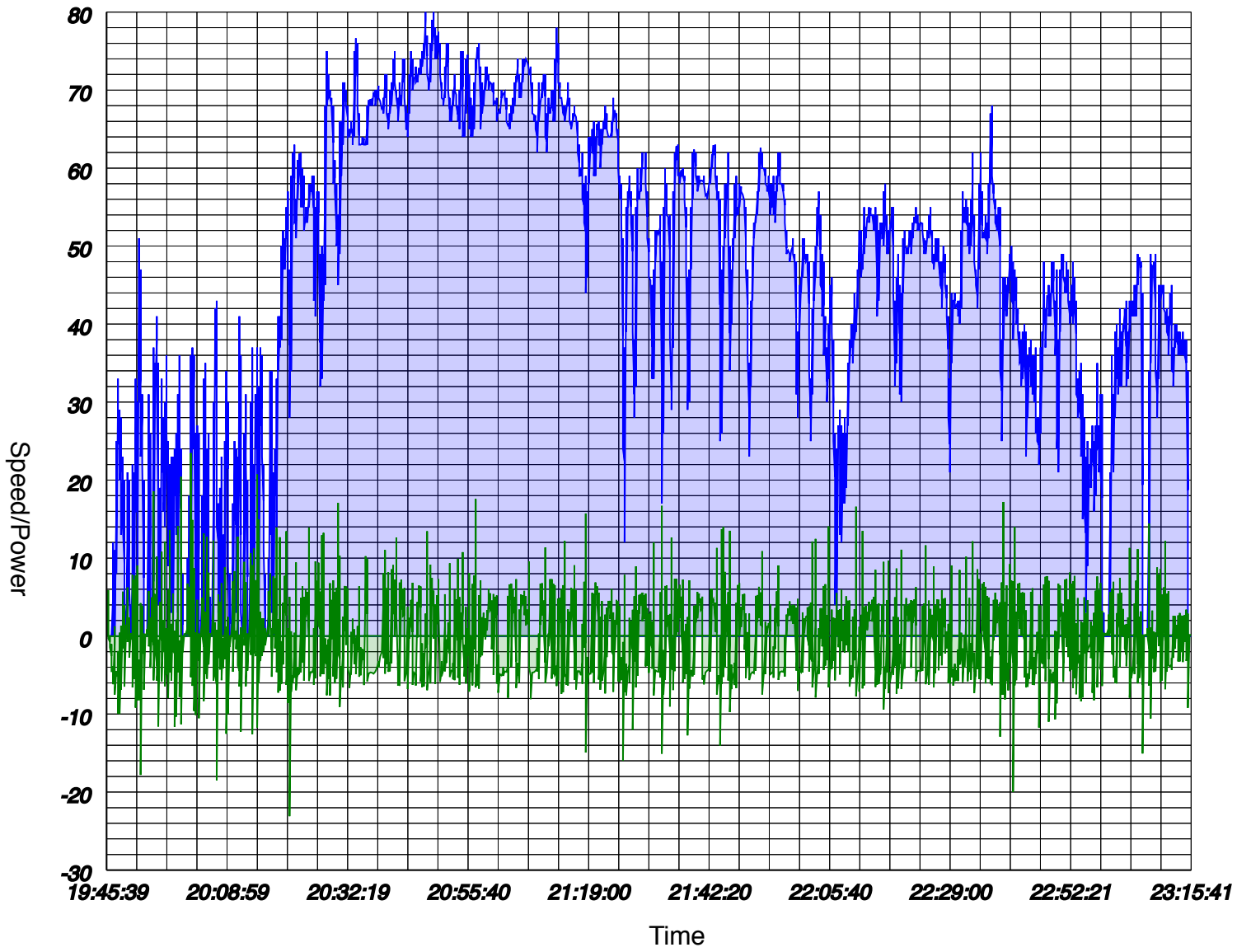
Energy	
Total energy from the battery	6.194 kWh
Total energy to the battery	6.616 kWh
Battery energy balance	0.422 kWh
Average services consumption	0.388 kW

Average Power Usage



Plot of power required to keep a given speed.
 Values are collected only when a constant speed is maintained long enough to have a consistent reading, so a trip with many different speeds may not gather enough data to plot.
 Since required energy is heavily influenced by road slope, you should drive on a plain road to have a correct reading.

Power Distribution



— Speed
— HV Battery Power

CCL and DCL

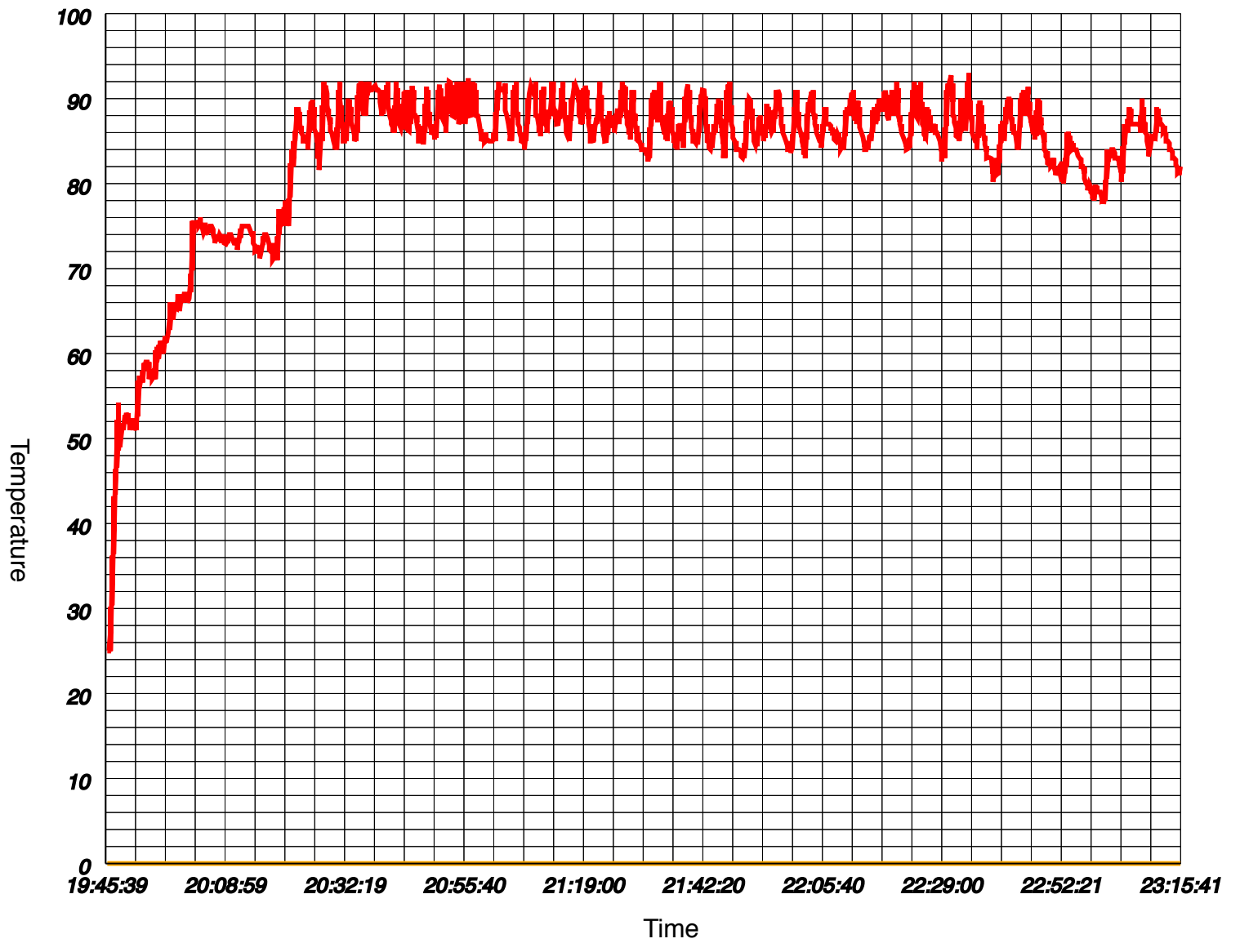


- SOC
- Battery Discharge Current Limit
- Battery Charge Current Limit
- HV Battery Power

Charge and discharge kW limits for the battery.
These values may change with battery level and temperature.
When the battery is nearly full, charge limit is reduced.
On low temperatures, charge and discharge limits are reduced to preserve battery life.

Temperature

Powertrain Temperature



- Engine Coolant Temperature**
- Inverter Temperature**
- Battery Temperature**
- MG Temperature**
- Battery Inhaling Temperature**
- Ambient Temperature**

Temperature		
	Ambient	Coolant
Avg	0°C	83°C
Min	0°C	25°C
Max	0°C	93°C

Time to reach given temperature	
Coolant Temperature	Time
40°C	1:08 sec
50°C	1:44 sec
60°C	9:15 sec
65°C	12:08 sec
70°C	16:08 sec
90°C	39:37 sec

Temperatures for each car component.

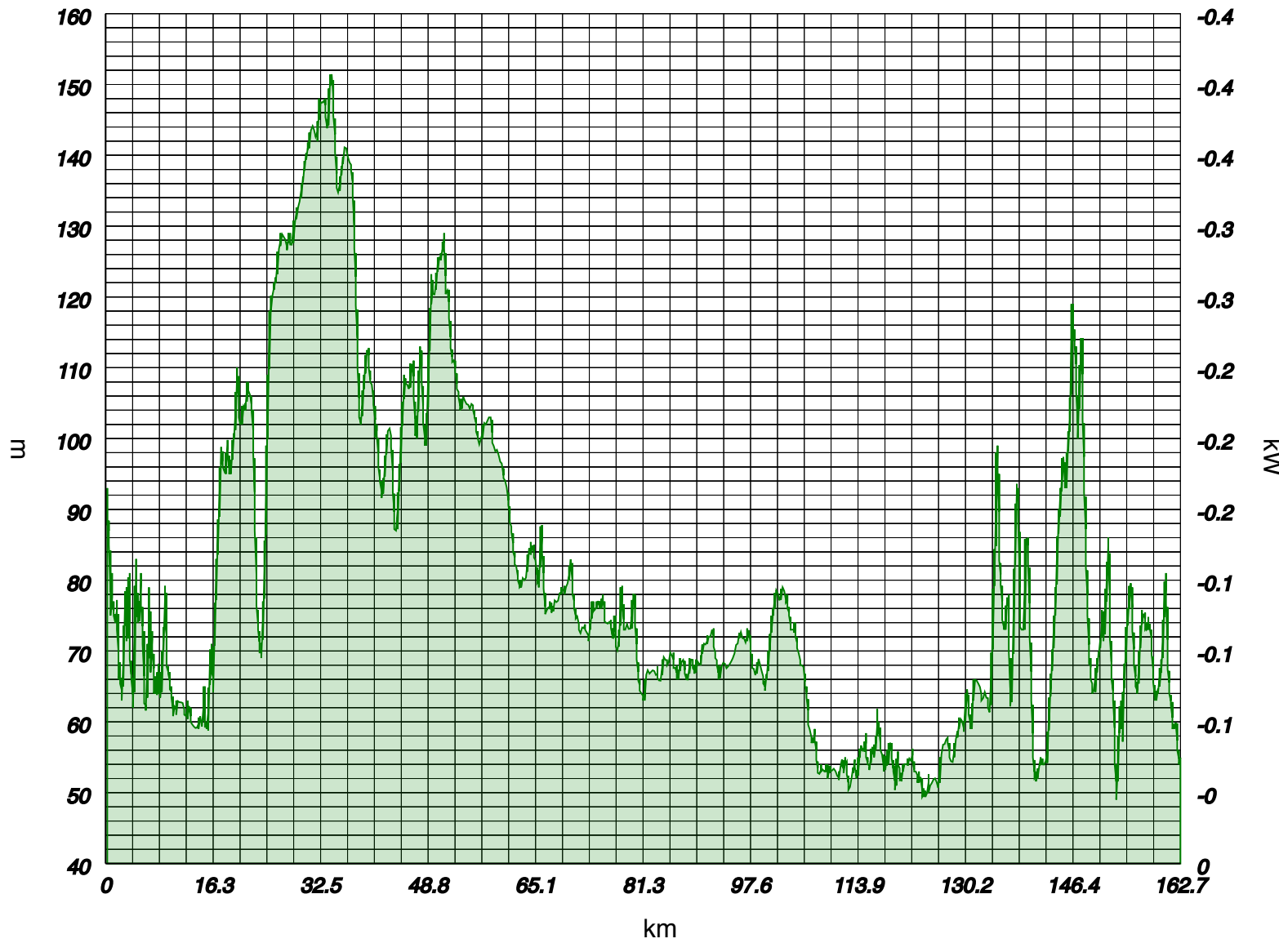
Engine coolant temperature is the water temperature, while inverter and MG is the actual component temperature.

For inverters and MGs, only the most significant value among all components is shown.

HV Battery has multiple sensors: usually the inner ones are higher than the outer ones. % Max shows time percentage the specified sensor was the highest of the pack.

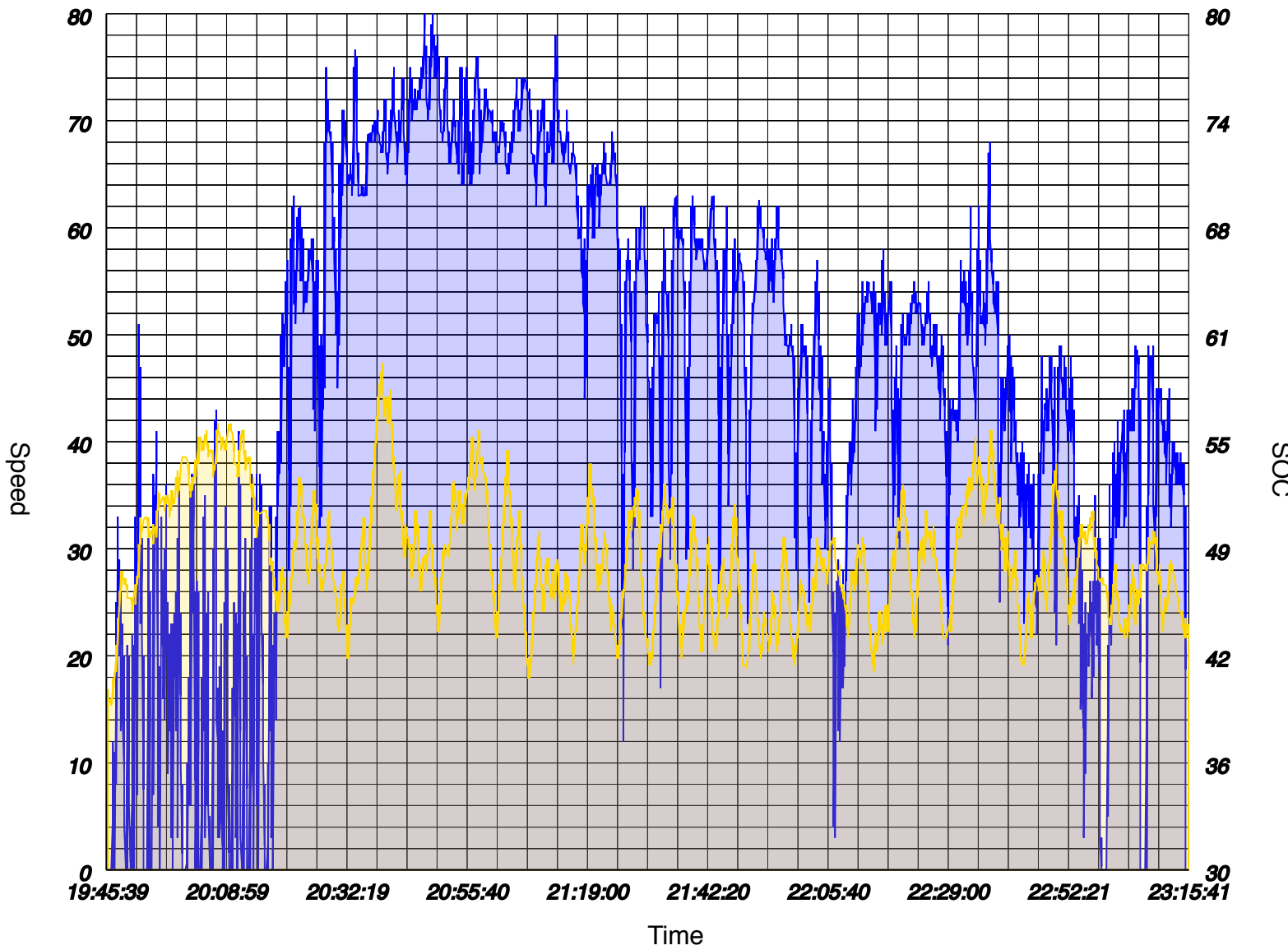
[Trip](#)

Elevation Profile



Altitude	
Avg	77
Start	92
End	55
Min	49
Max	152
Upward	3,039
Downward	3,104
Altitude Delta	-37

Speed



Speed
SOC

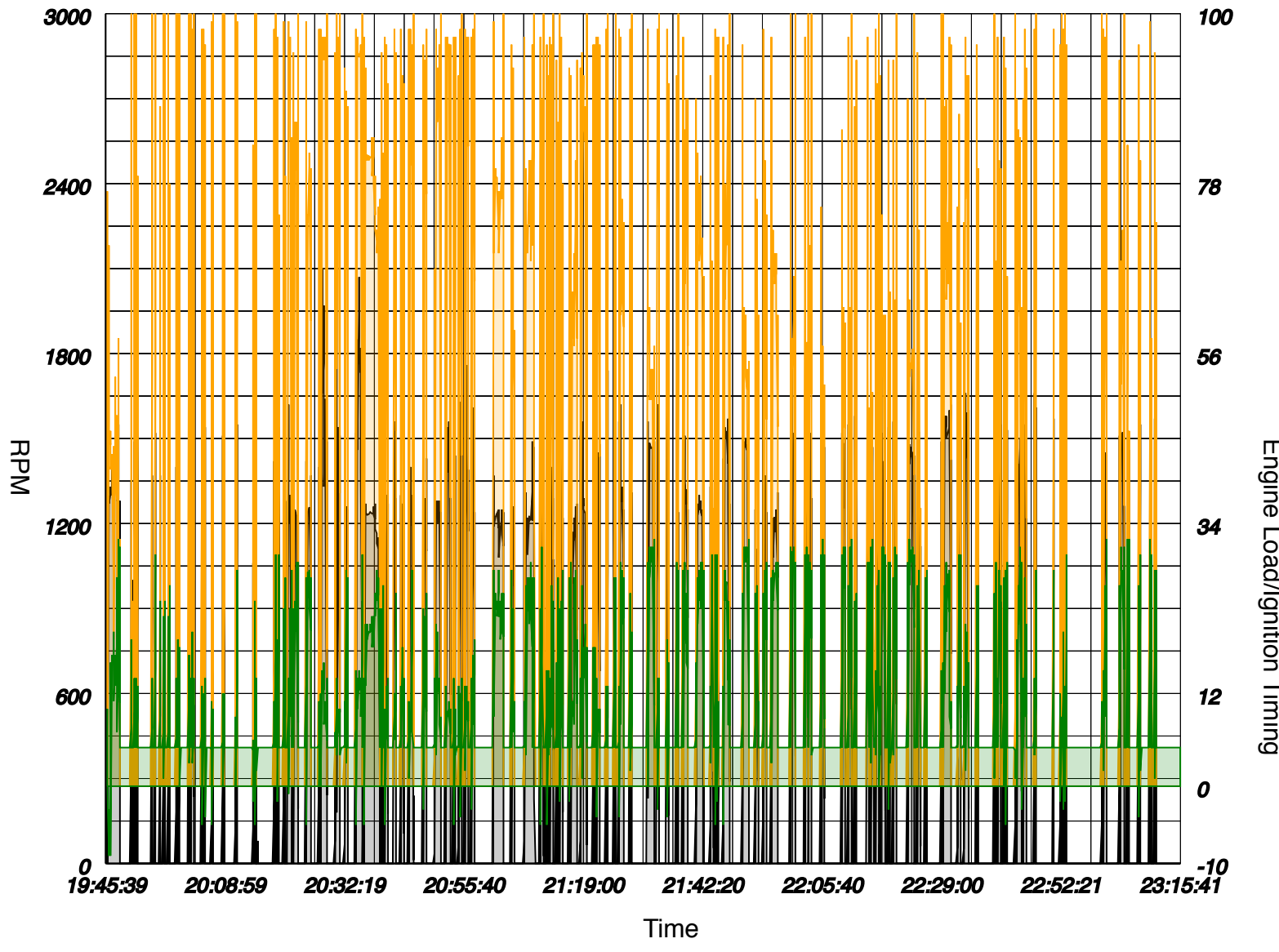
Speed	
Average	46 km/h
Moving Average	49 km/h
EV Average	43 km/h
Max	80 km/h

Engine

	RPM	Load	Timing
Avg	1,334	76%	10°
Max	2,180	100%	32°
Min	-	-	-9°

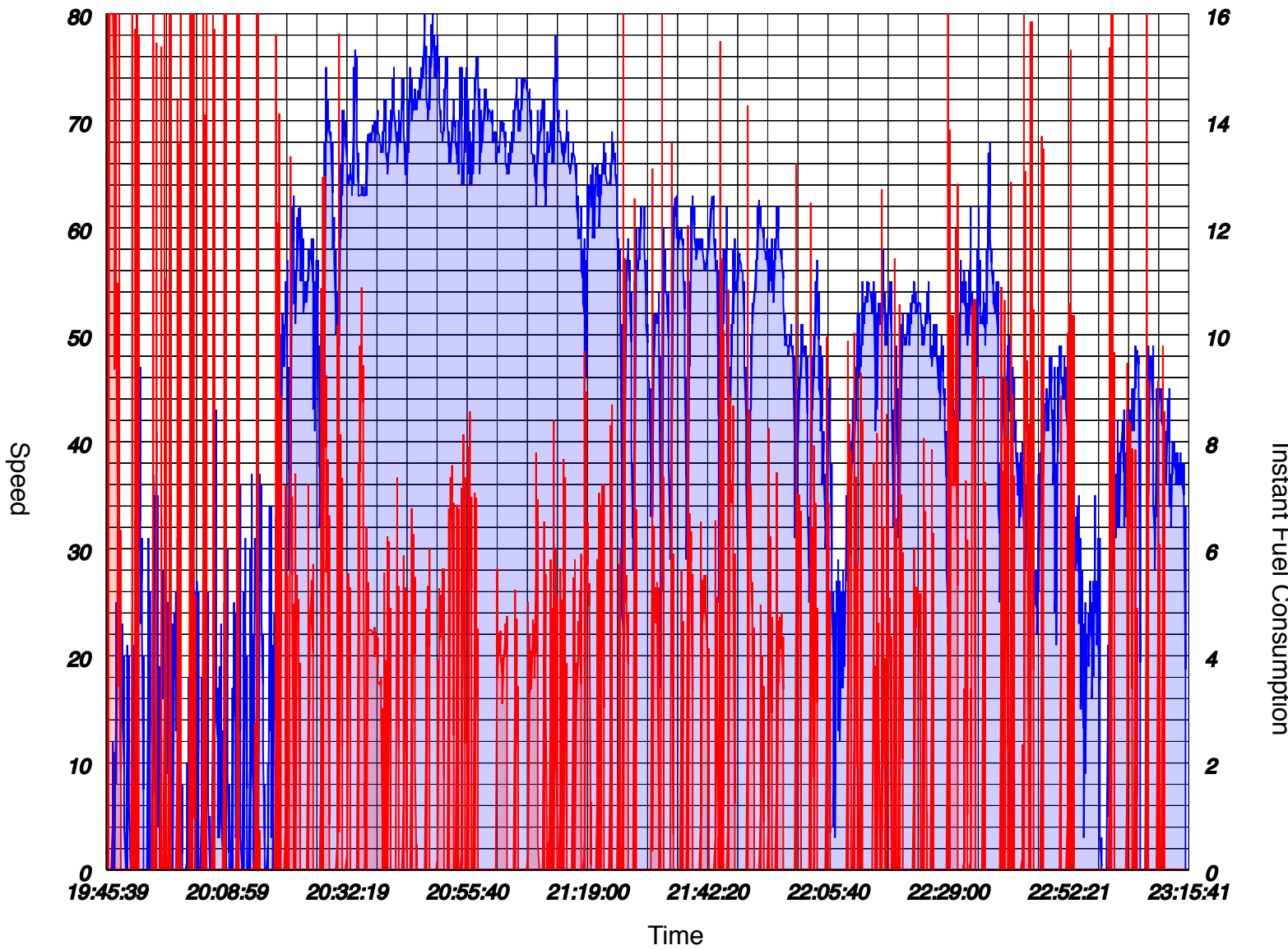
Ignitions	
Total	119
Short	10

RPM



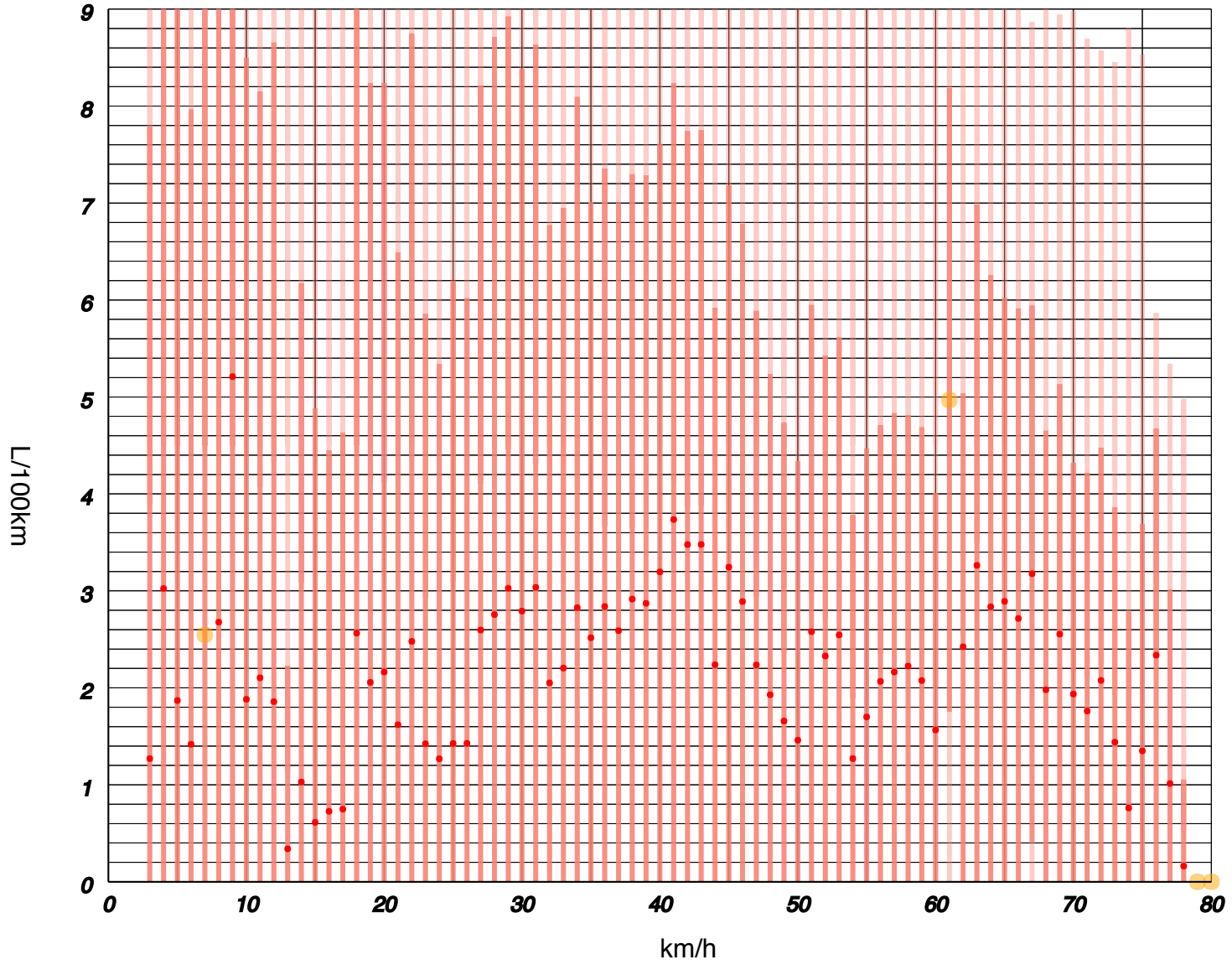
- RPM**
- Engine Load**
- Ignition Timing**

Instant Fuel Consumption

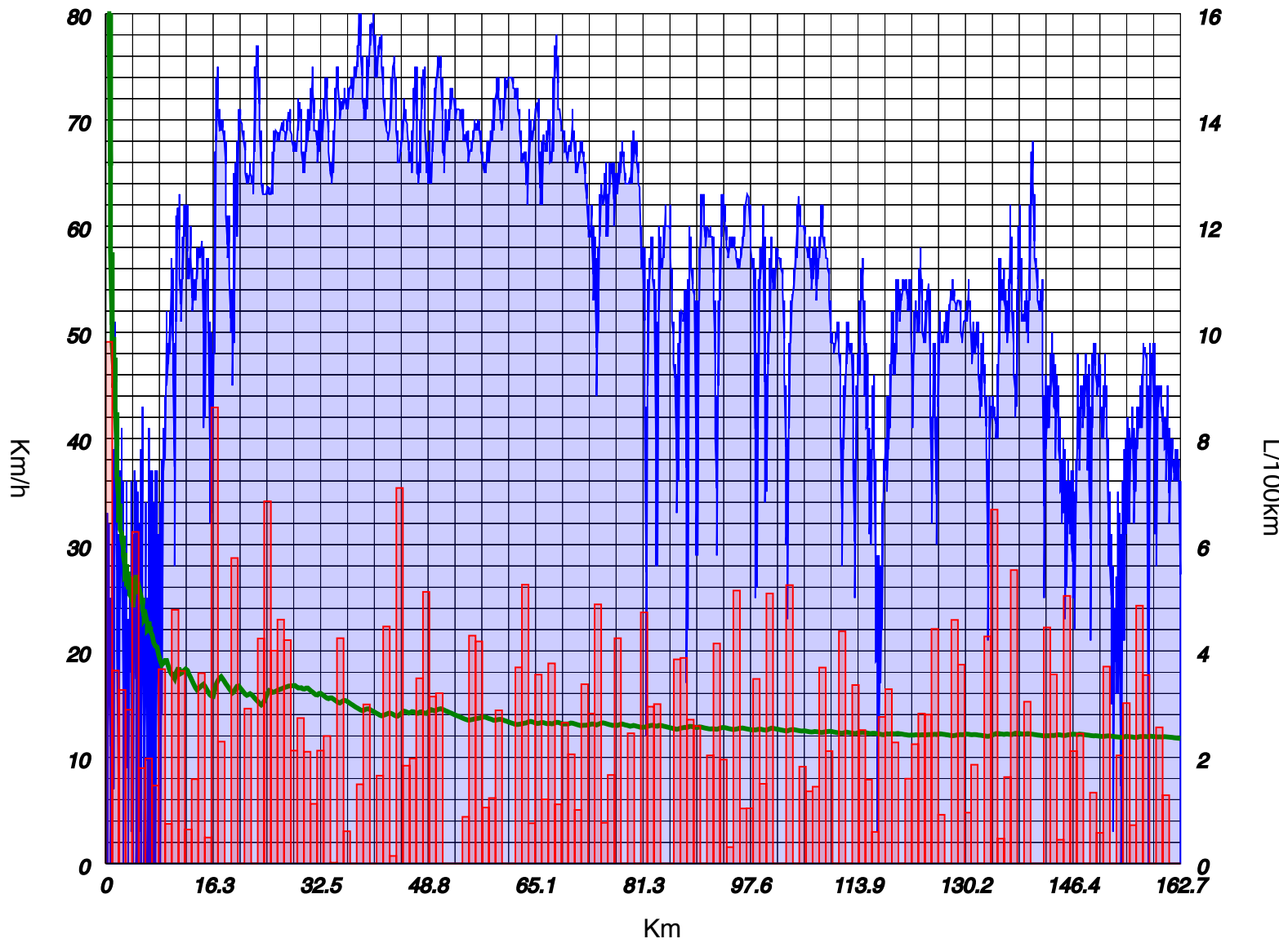


— Speed
— Instant Fuel Consumption

Consumption Map



Fuel usage over distance



- **Speed**
- **Fuel from trip start**
- **Fuel over last Kilometer**

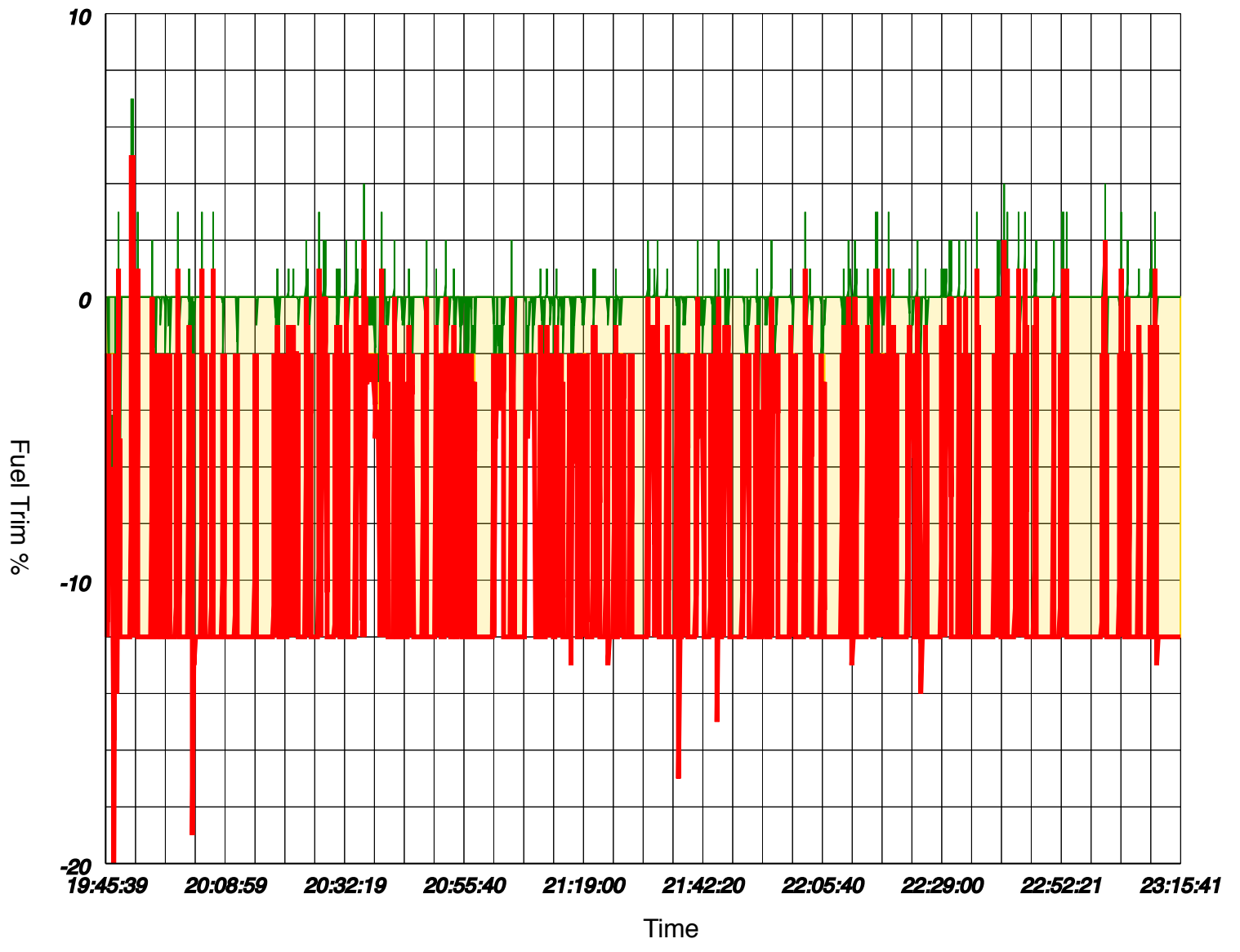
Engine		
State	%	Longest Time
ICE Running	32%	2:59 sec
ICE Off	68%	6:57 sec




EV Statistics	
Trip Length	162.69 km
EV Range	103.46 km
Excessive EV events	0

EV States		
State	%	Longest Time
EV	68%	6:57 sec
EV traction	0%	0:00 sec
Excessive EV	0%	0:00 sec

[Fuel Trims](#)

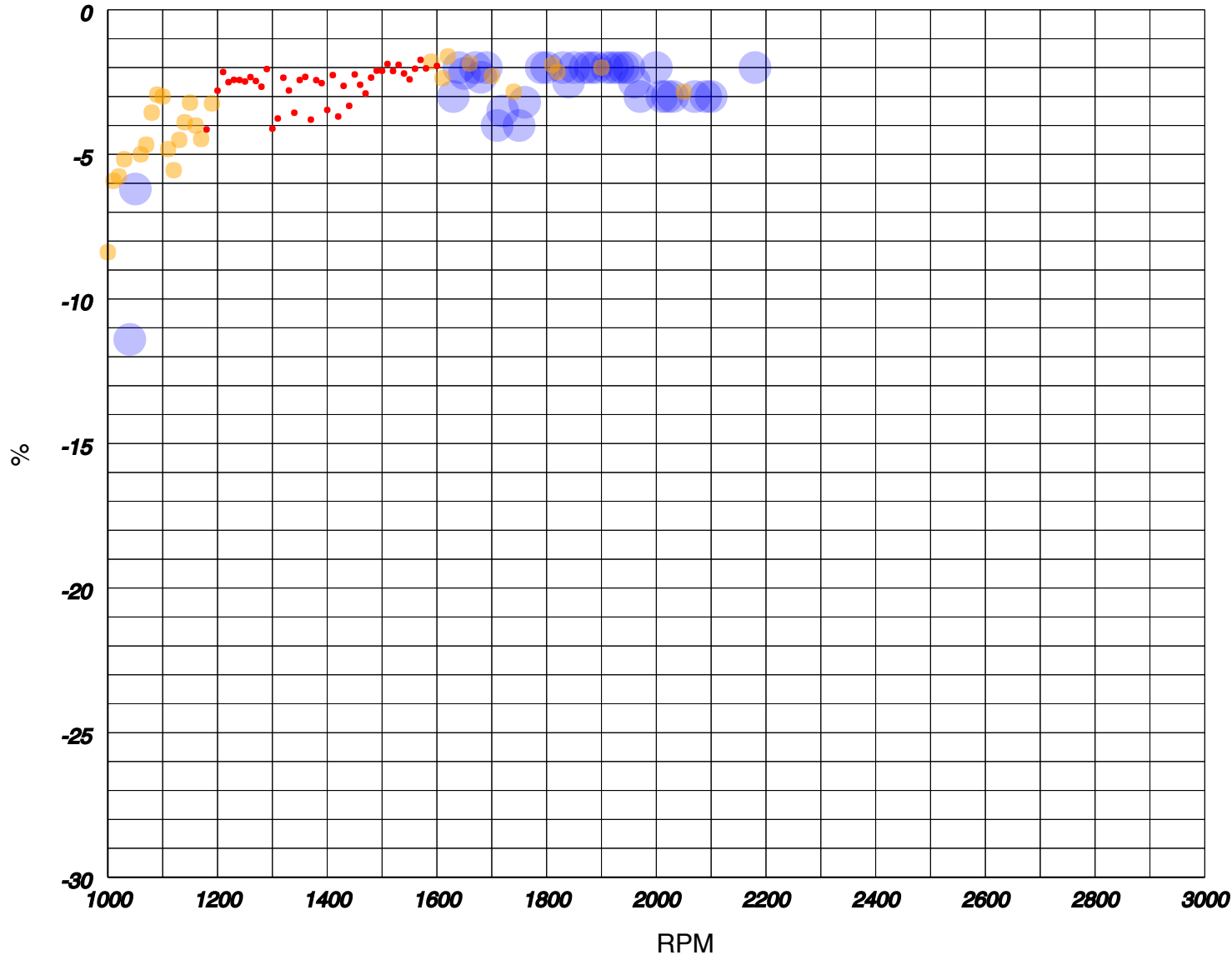
Fuel Trim



-  **Long Term Fuel Trim**
-  **Short Term Fuel Trim**
-  **Effective Fuel Trim**

[Fuel Trims](#) are the percentage of change in fuel over time. The engine control unit keeps proper air:fuel ratio by fine-tuning the amount of fuel going into the engine.

Fuel Trim Map



For each RPM value of the petrol engine, the applied Fuel Trim plotted as a dot. This map can be used to verify LGP-operating engines working condition.

Fuel Trim	Short Term	Long Term	Effective
Avg	-0%	-9%	-9%
Min	-20%	-12%	-31%
Max	7%	-2%	5%

[Maps](#)

EV Map

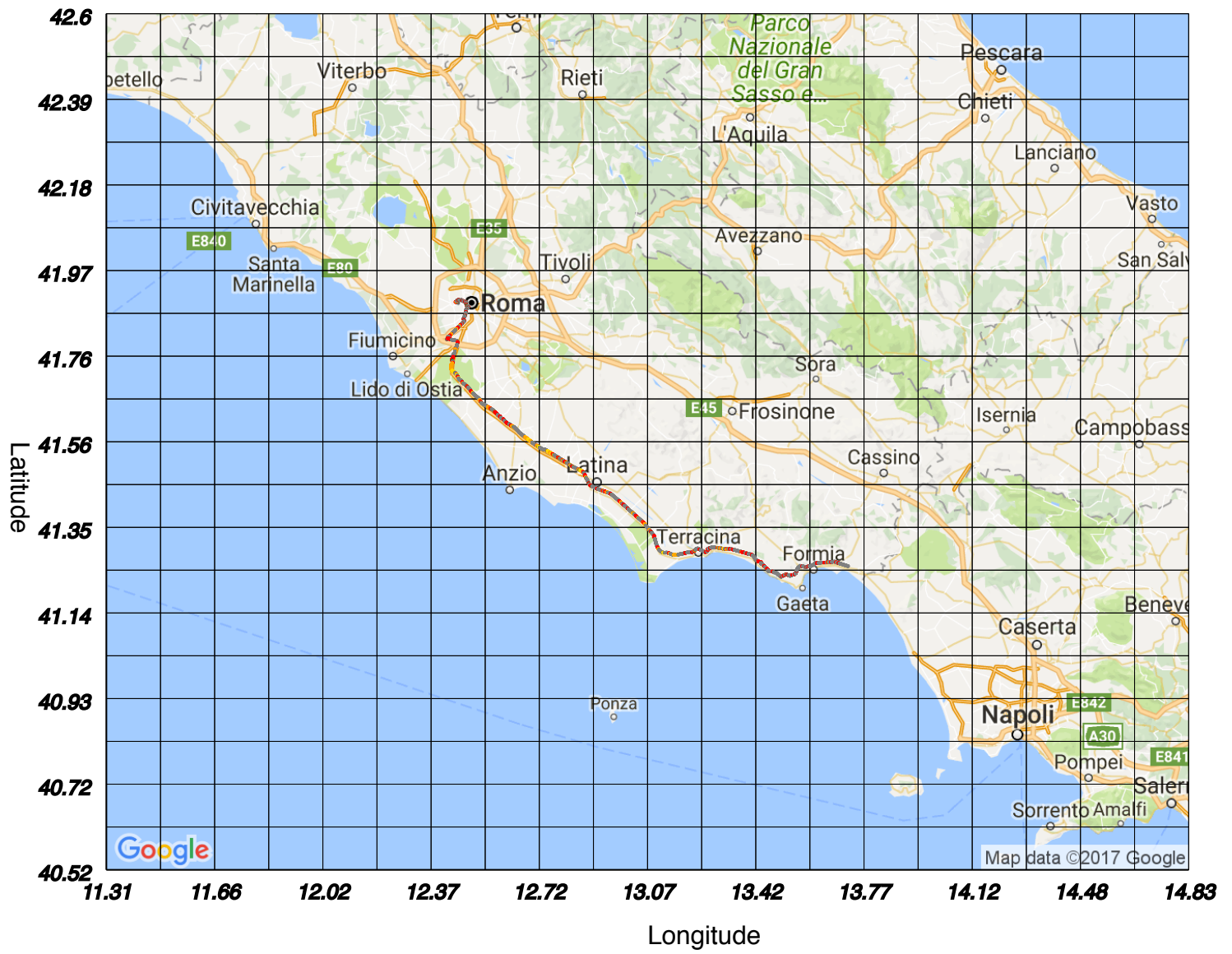


Engine Running

EV

Point size is proportional to applied power

Instant Consumption Map



- Engine Off**
- less than 3L/100km**
- less than 4L/100km**
- less than 5L/100km**
- more than 5L/100km**

Notes

Point size on scatter charts is proportional to number of samples: a small, well defined dot represent a higher confidence value than a bigger, faint dot.