

Green waves for cyclists in Copenhagen

Nicolai Ryding Hoegh - City of Copenhagen



Denmark - Copenhagen



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City of Copenhagen
The Technical and Environmental Administration
Traffic Department

Velo-city 2007 Munich

Traffic crossing daily (6 am - 6 pm)



Traffic crossing the city limit:

- 540,000 cars
- 63,000 cyclists
- 1 cyclist pr. 10 cars



Traffic crossing daily (6 am - 6 pm)



Traffic crossing the city limit:

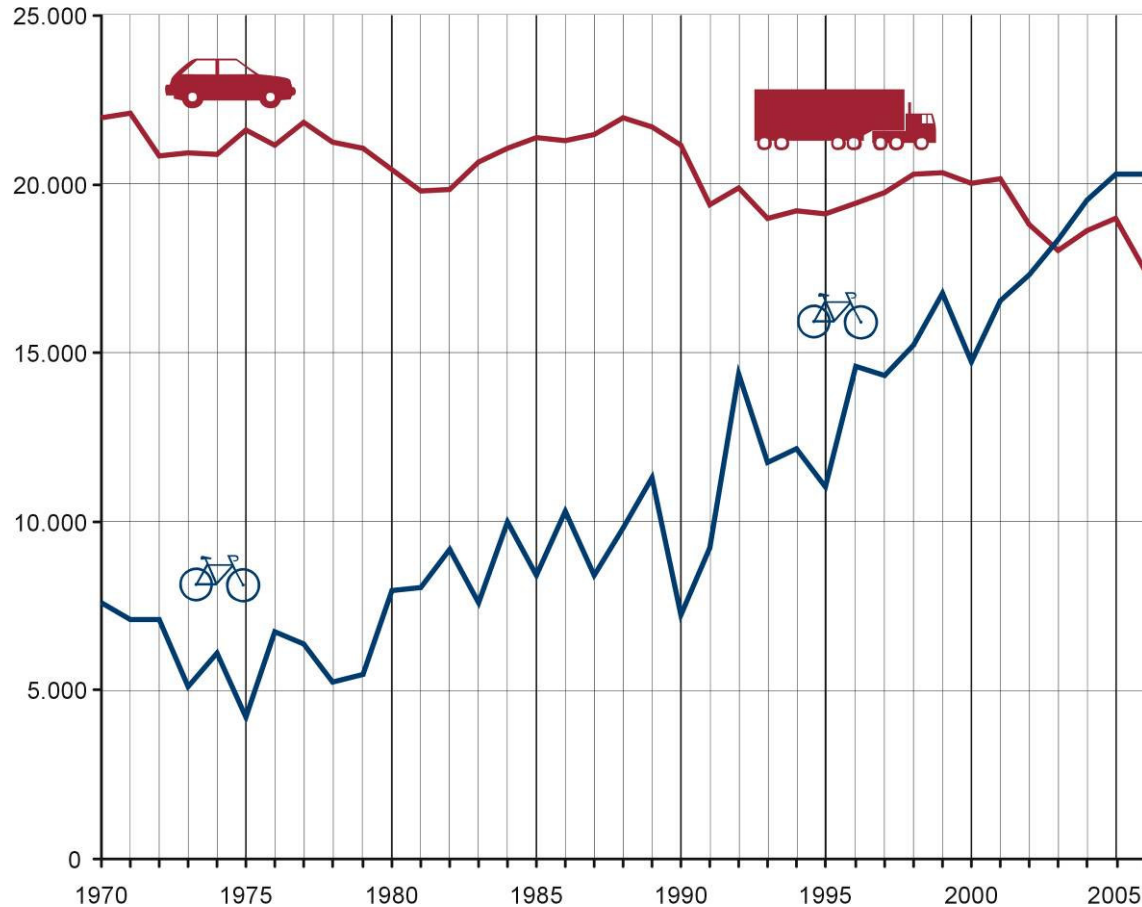
- 540,000 cars
- 63,000 cyclists
- 1 cyclist pr. 10 cars

Traffic crossing the inner city limit:

- 310,000 cars
- 180,000 cyclists
- 1 cyclist pr. 2 cars



Traffic, inner city (morning peak)



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Copenhagen Cycle Policy



“Cycling speed on trips of over 5 km to increase by 10%”

Target figure, Cycle policy 2002 - 2012



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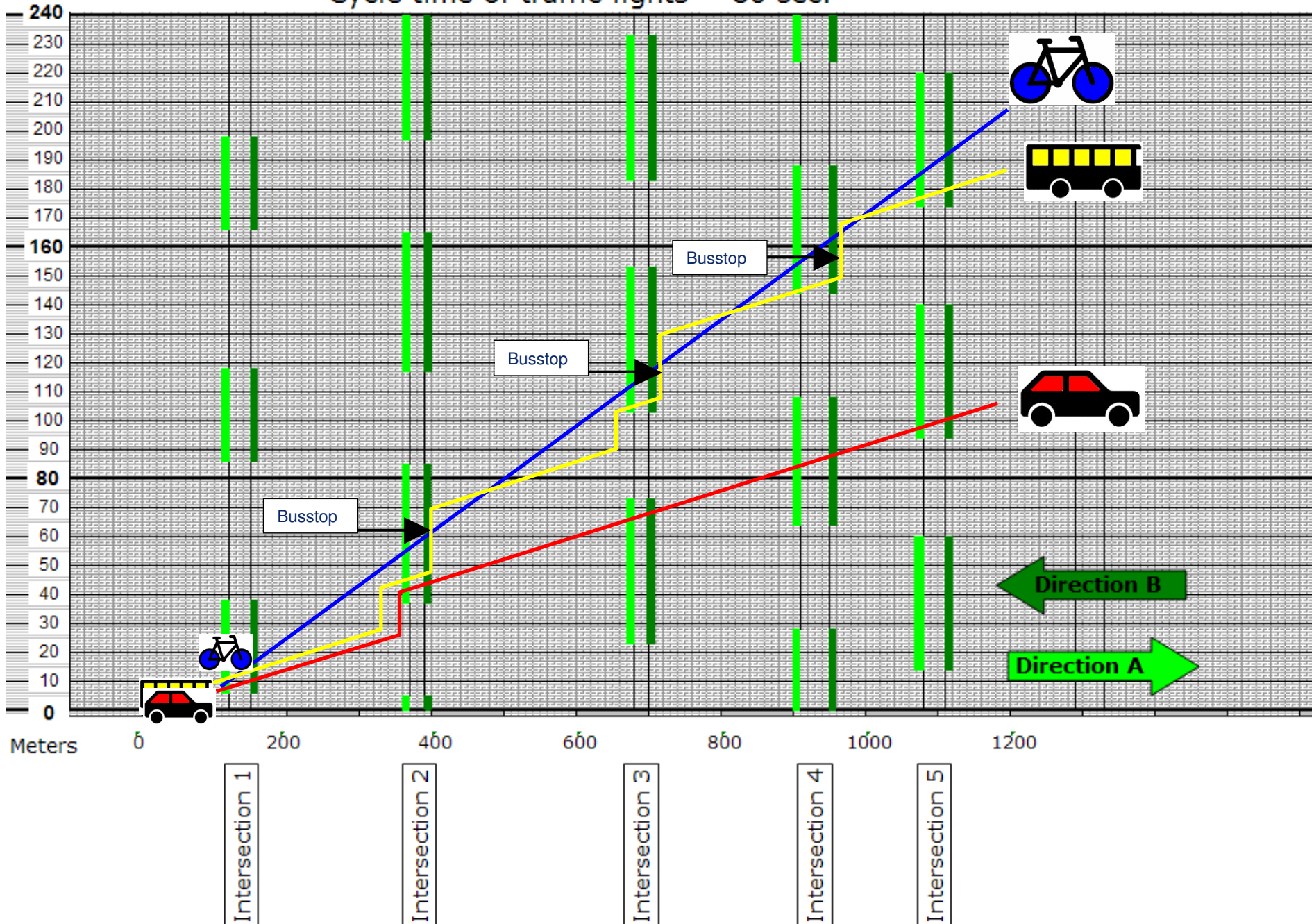
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Example of a green wave adjusted to a speed of 20 km/h

Cycle time of traffic lights = 80 sec.

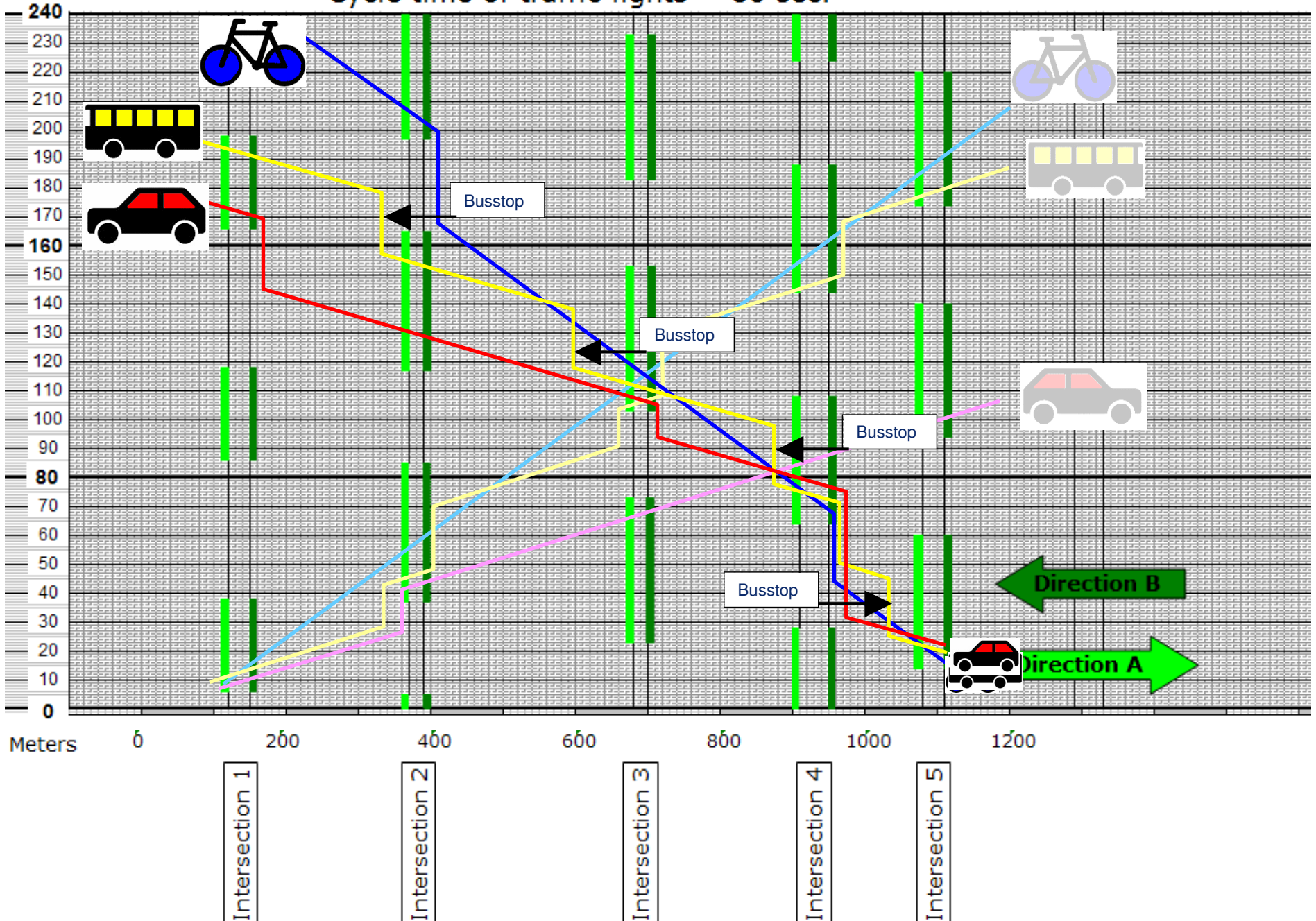
Seconds



Example of a green wave adjusted to a speed of 20 km/h

Cycle time of traffic lights = 80 sec.

Seconds



Norrebrogade - facts



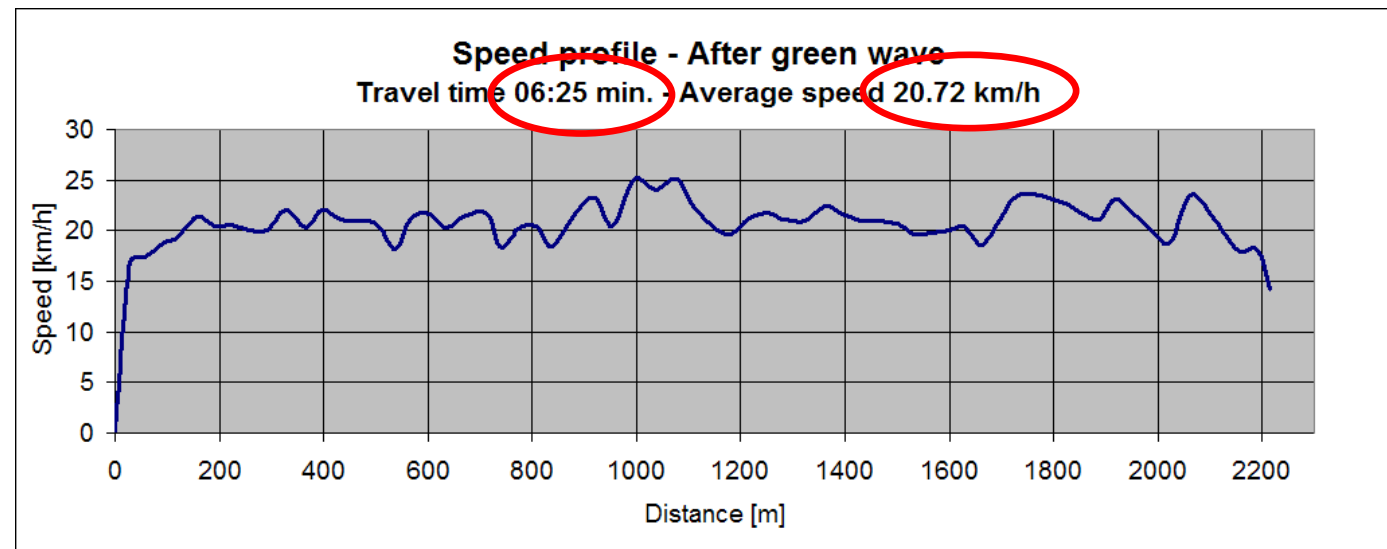
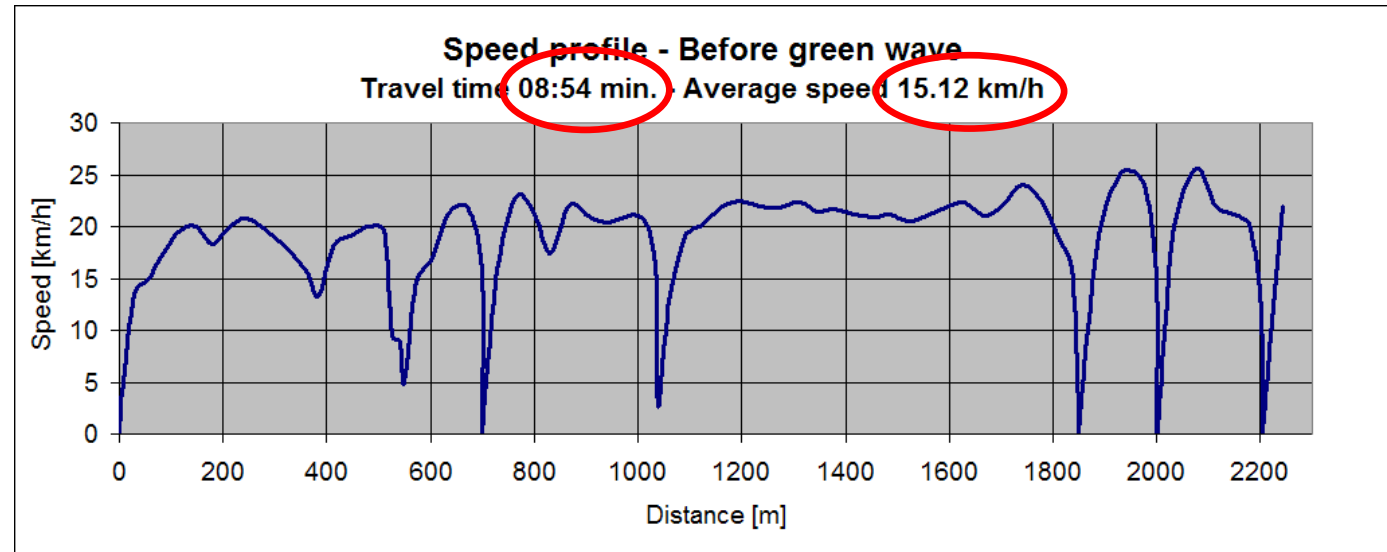
Green wave on Norrebrogade



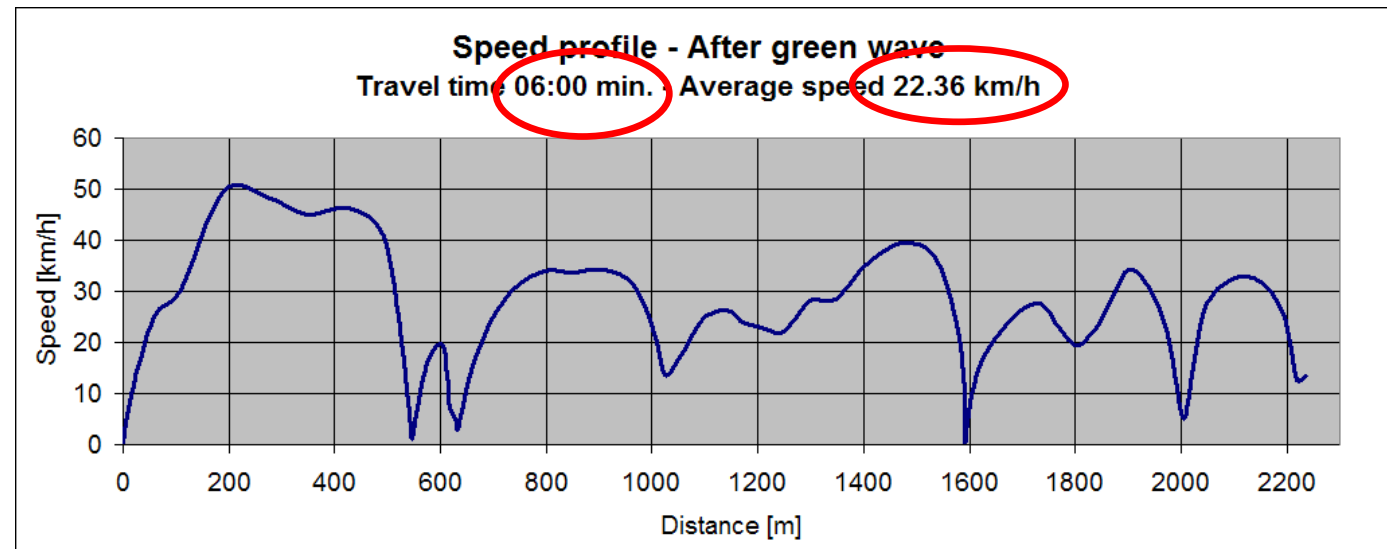
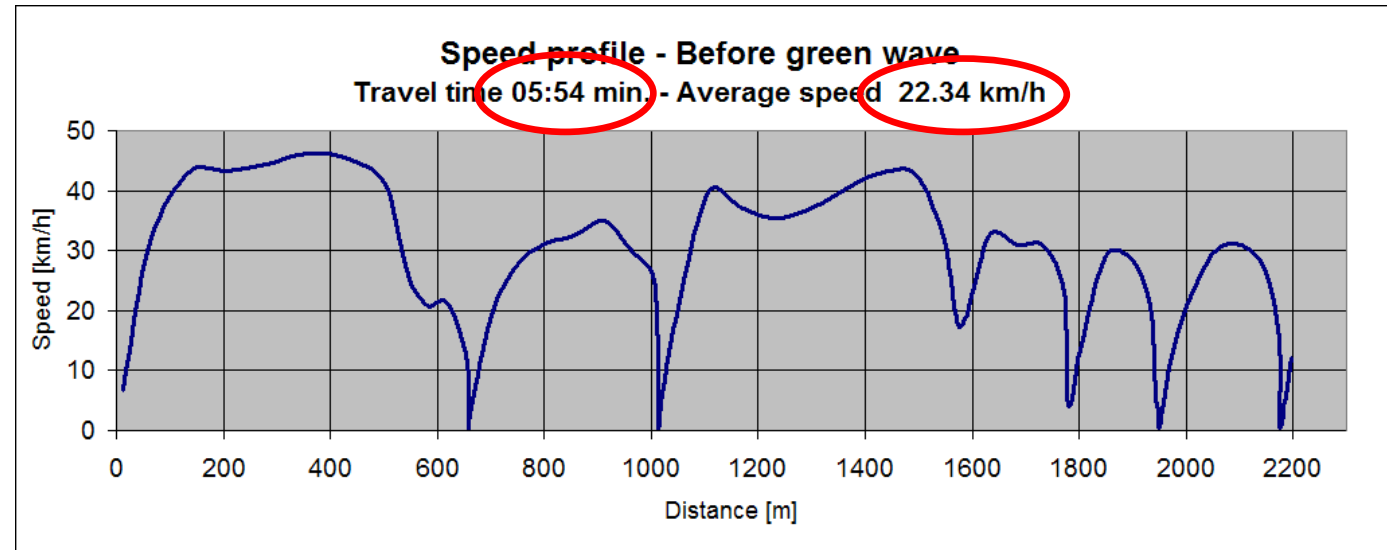
- Green wave adjusted to a cyclist's speed of 20 km/h
- 6:30 am to 12 - green wave adjusted to cyclist towards city centre
- 12 to 6 pm - green wave adjusted to cyclist from city centre



Results - bicycles (to centre, morning)



Results - cars (to centre, morning)



Results in general - bicycles



		Saved stops	Saved min./sec.
To centre in the morning	Green wave	6	2:29
From centre in the morning		1	0:35
From centre in the afternoon	Green wave	3	1:13
To centre in the afternoon		0	0:36



Results in general - cars



		Saved stops	Saved min./sec.
To centre in the morning	Green wave	1	0
From centre in the morning		1	0:30
From centre in the afternoon	Green wave	1	0:48
To centre in the afternoon		0	0:30



Results in general - buses



		Before	After	Results
To centre in the morning	Green wave	8:52	8:56	+ 4 sec
From centre in the morning		6:27	6:54	<u>+ 27 sec</u>
From centre in the afternoon	Green wave	11:59	11:46	- 13 sec
To centre in the afternoon		5:55	6:45	<u>+ 50 sec</u>



Obstacles



Congestion on cycle track

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- ~~2~~
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- ~~11~~
- ~~12~~



Farimagsgade - 4 traffic lights

Planning 2 more green waves:

- Torvegade - 4 traffic lights
- Osterbrogade - 3/7 traffic lights



Questions

