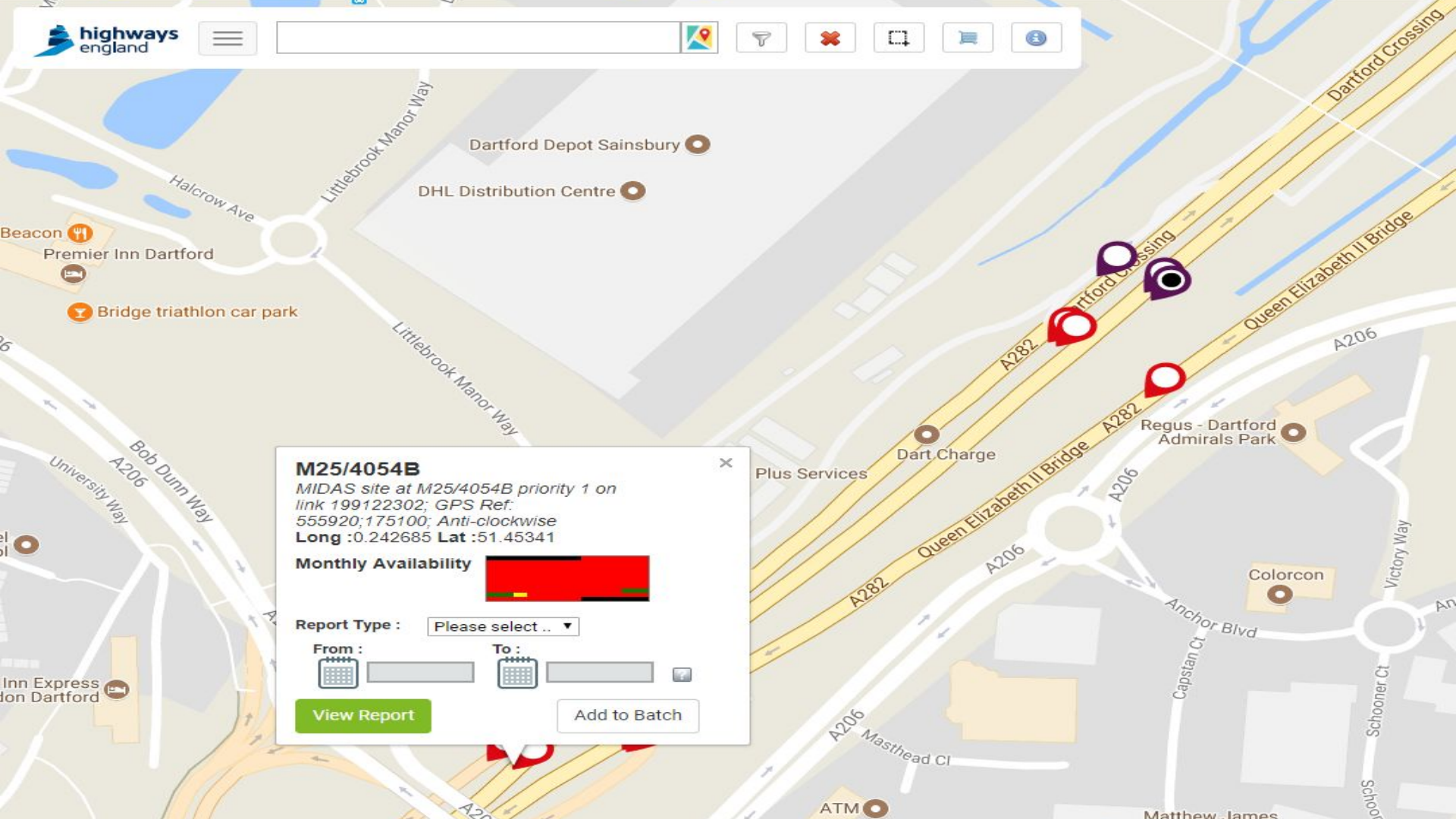# Traffic Speed and Flow Data

New tools to analyse minute-by-minute data on the SRN in England

Dr. Ivo Wengraf
Research & Data Manager
Joining the Dots 2018
27 February 2018

SRN traffic data

- HE inherited Highways Agency data sets: HATRIS, Live traffic data, etc.
- Current access to 15 minute traffic data HATRIS => Data.gov.uk => WebTris
- Current access to 1 minute traffic data HALOGEN
- R package for SRN traffic data: *oneminutetrafficdata*

RAC Foundation

Dartford Crossing

Dartford Depot Sainsbury

DHL Distribution Centre

Littlebrook Manor Way

Halcrow Ave

Beacon

Premier Inn Dartford

Bridge triathlon car park

Littlebrook Manor Way

Queen Elizabeth II Bridge

A282

A206

A206

Dart Charge

Plus Services

Regus - Dartford
Admirals Park

Queen Elizabeth II Bridge

A282

University Way

Bob Dunn Way

A206

A206

Victory Way

Colorcon

Anchor Blvd

Capstan Ct

Schooner Ct

Inn Express
don Dartford

M25/4054B   ×

*MIDAS site at M25/4054B priority 1 on
link 199122302; GPS Ref:
555920;175100; Anti-clockwise*
Long :0.242685 **Lat** :51.45341

Monthly Availability

Report Type :   Please select .. ▼

From :   **To :**

View Report   Add to Batch

A206 Masthead Cl

ATM

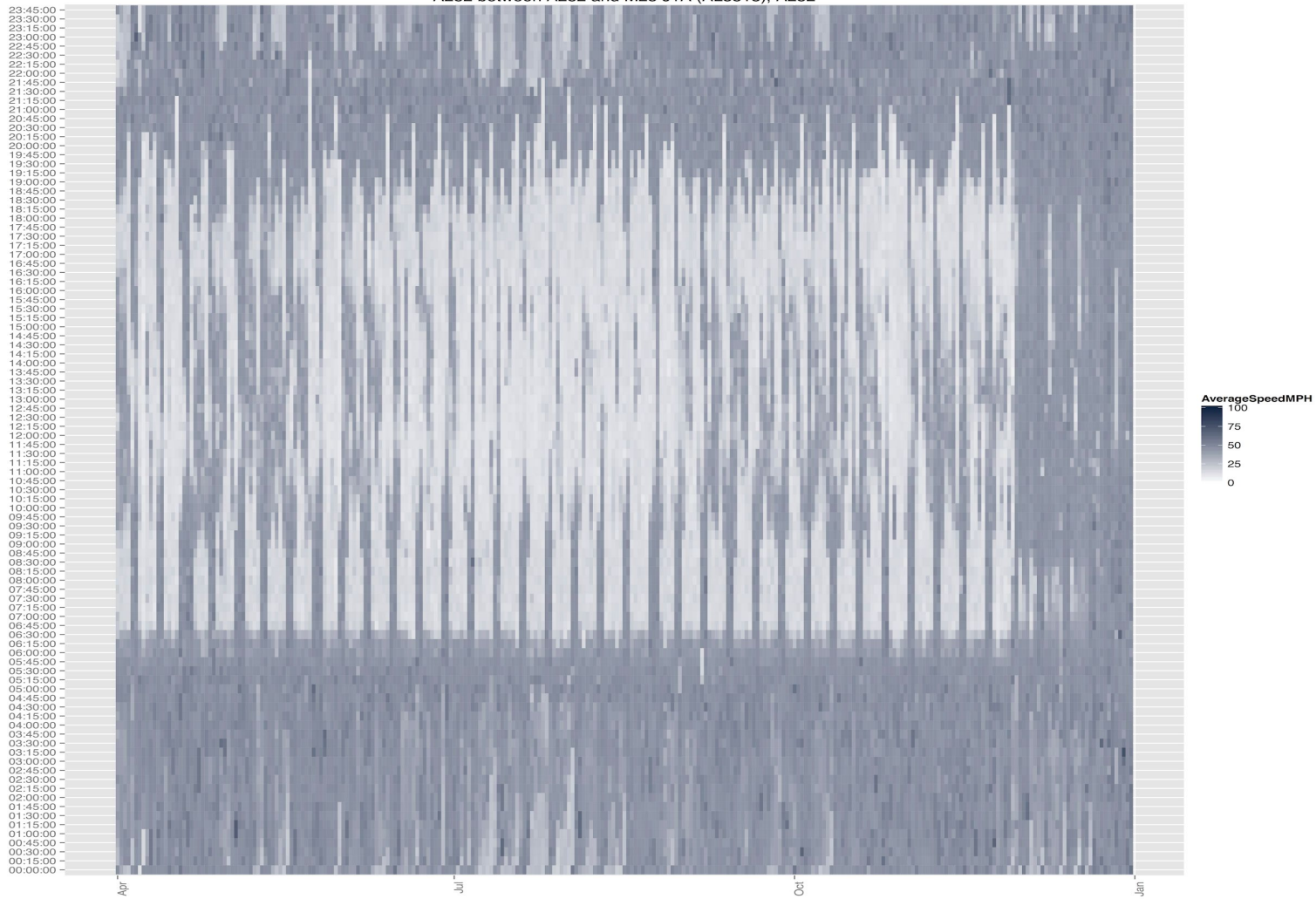Matthew James
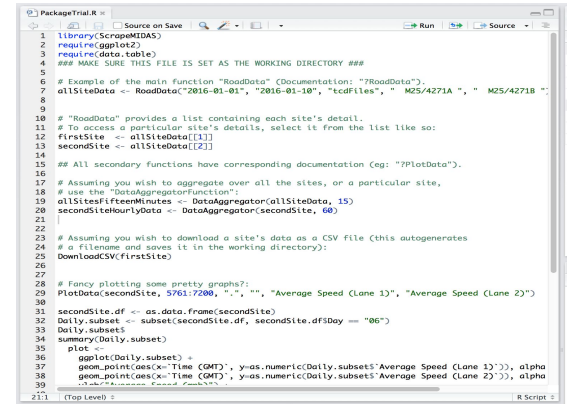
A282 between A282 and M25 J1A (AL3818), A282

1 minute data

- Traffic speed and traffic flow (vehicle count) by **vehicle category** and **lane** for each 1 minute period of each day for each link on the SRN network

- Well hidden in HALOGEN

- Complex access procedure
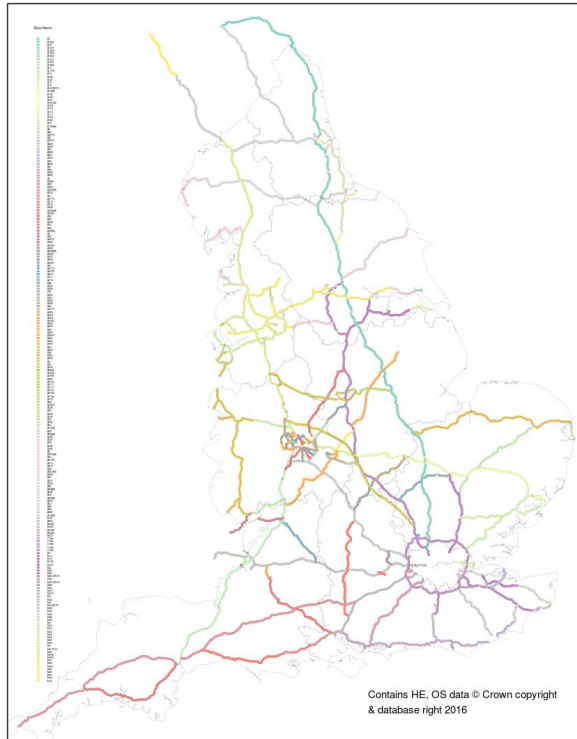
- Difficult file type etc.

oneminutetrafficdata

- Store TCD files locally, batch convert and analyse in R

- Aggregate data over any time period (e.g., 15 minute, **but with lanes**)

- Download as CSV function

- Plotting function (or use ggplot2)

- PCU converter

- Percentile Speed estimates

- Ops and Alert Logs – record of network events and signage

RAC
Foundation

Map the SRN

RAC
Foundation

SRN

Contains HE, OS data © Crown copyright
& database right 2016

M25

Contains HE, OS data © Crown copyright
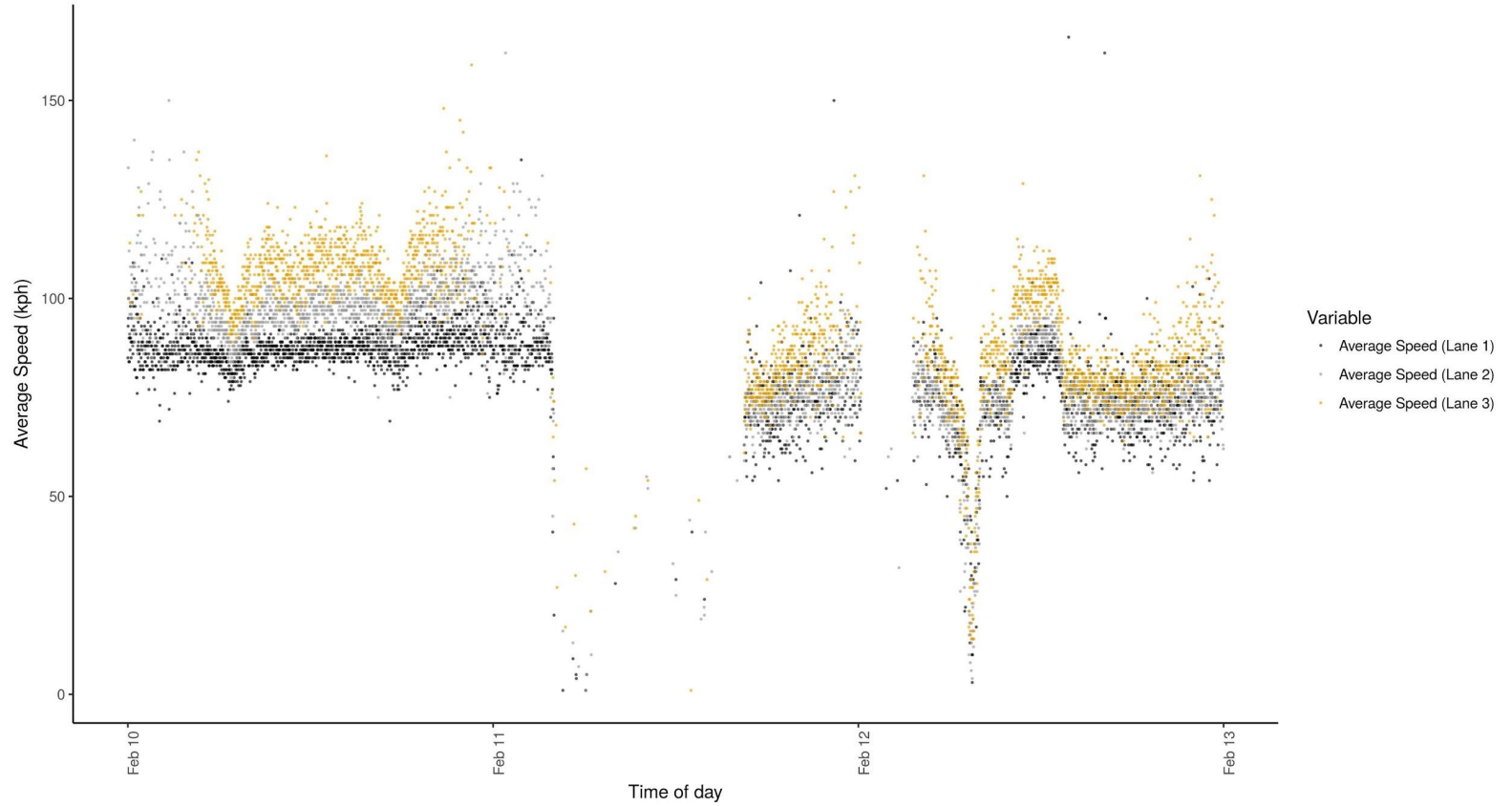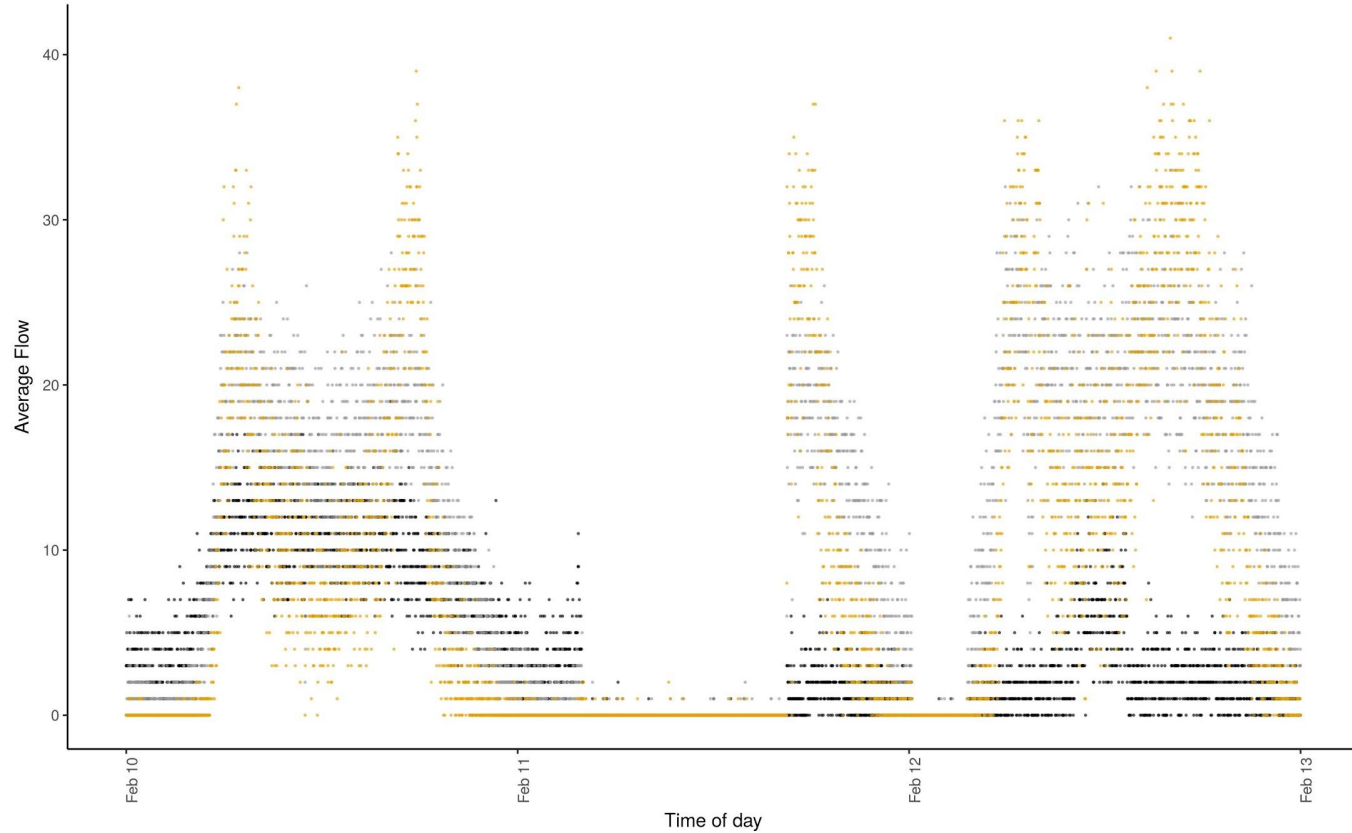& database right 2016

RAC
Foundation

Find a link with a fatal crash in 2016. Plot speed by time, by lane, +/- 24hrs.

RAC
Foundation

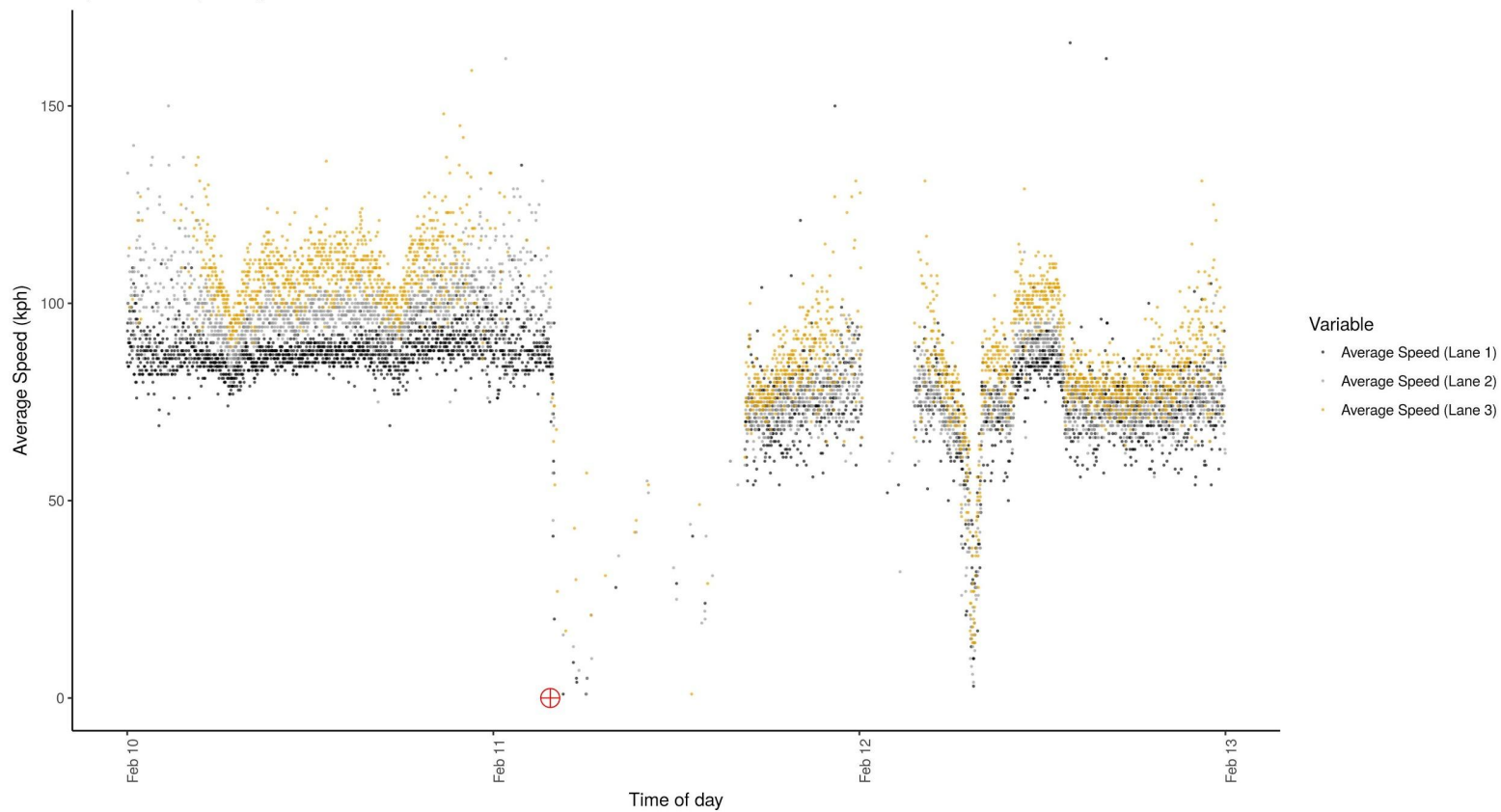Speed/Time plot, by lane

Plot flow by time, by lane, +/- 24hrs.
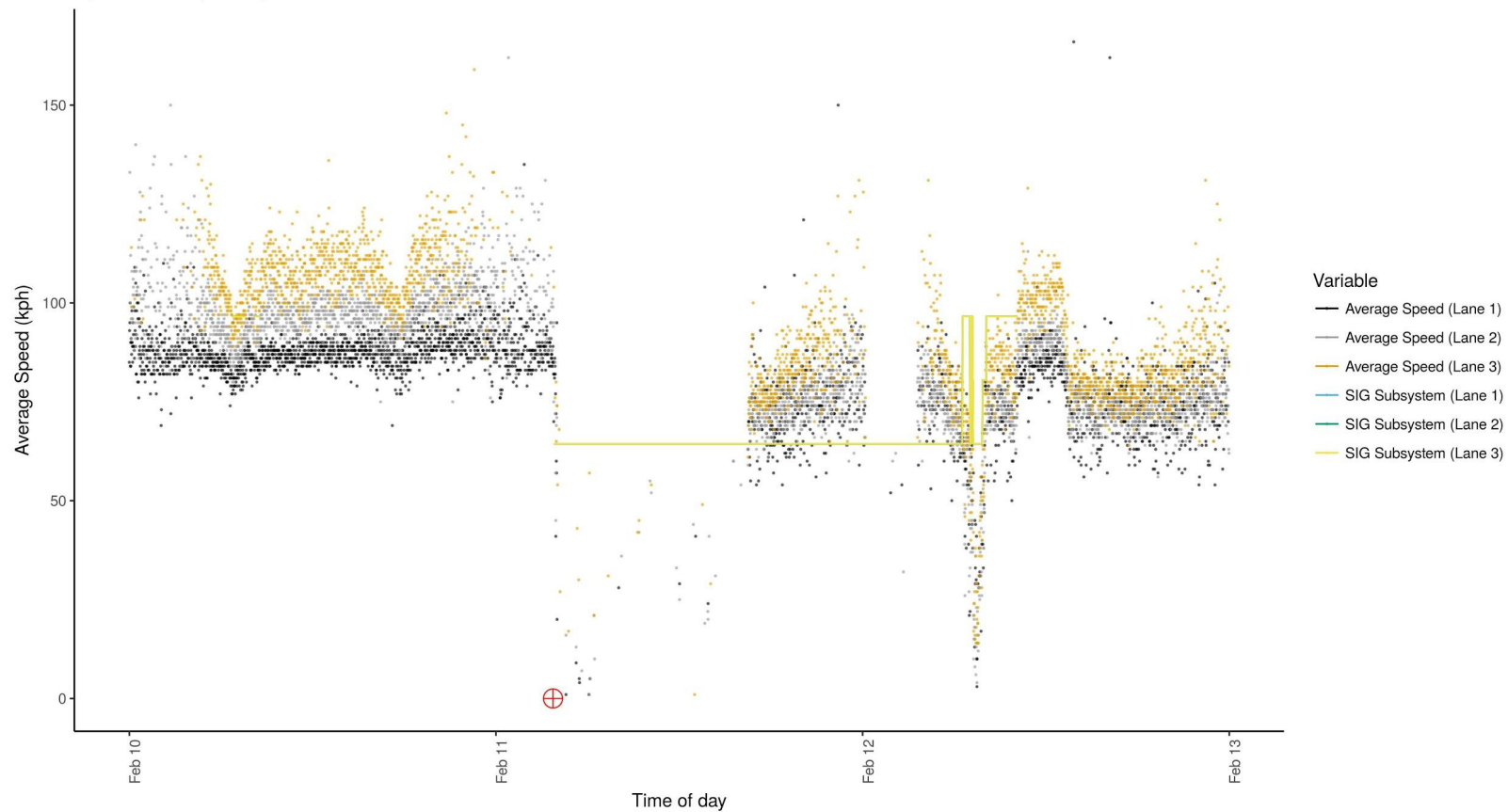
RAC
Foundation

Flow/Time plot, by lane

Speed/time plot, but with STATS19 crash added to the plot.
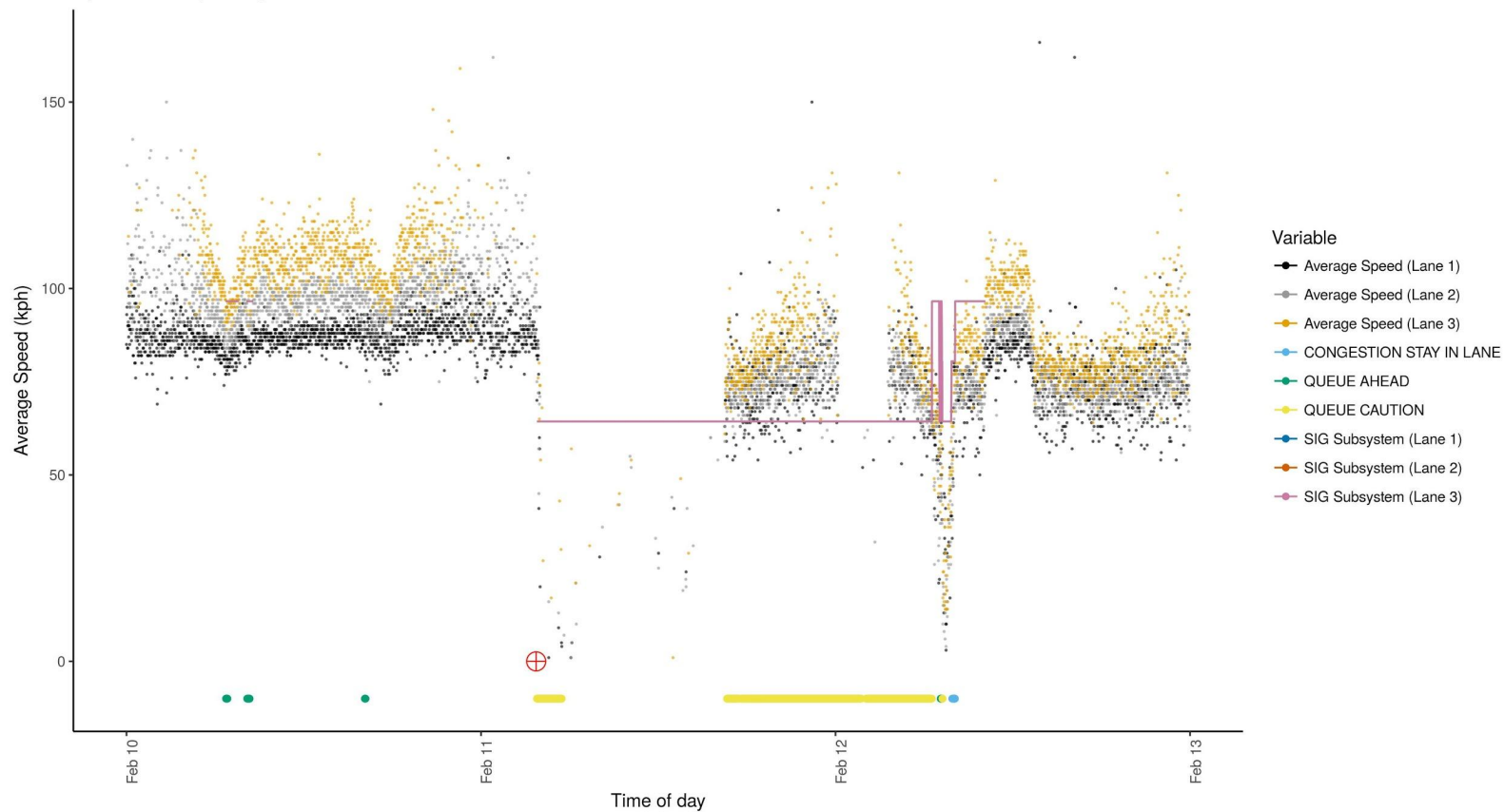
RAC Foundation

Speed/Time plot, by lane

Speed/time plot, plus STATS19 crash, plus variable speed limits.
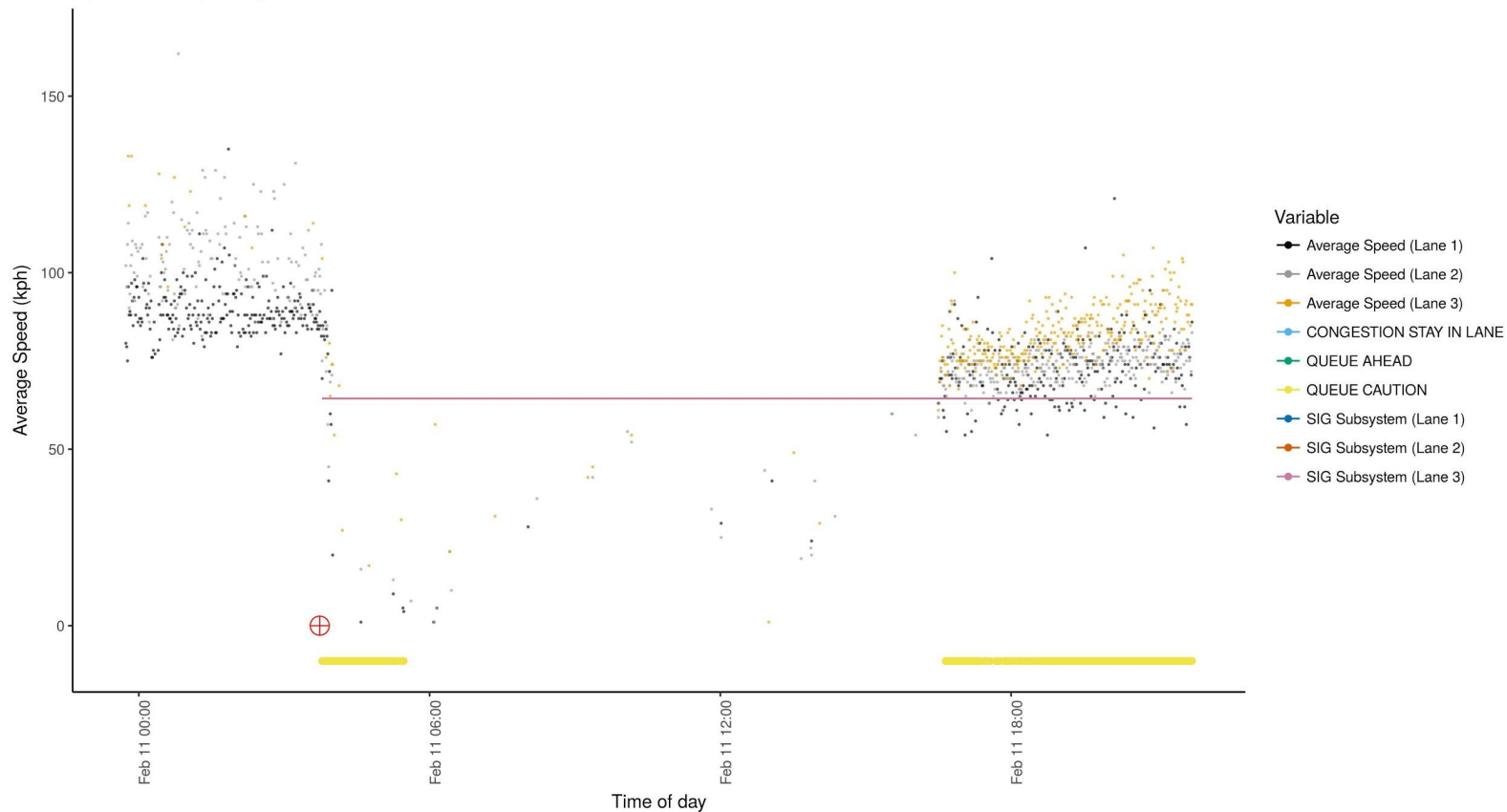
RAC Foundation

Speed/Time plot, by lane

Speed/time plot, plus STATS19 crash, plus variable speed limits, then add in what the VMS messages were at the time.

Speed/Time plot, by lane

Zoom in...

RAC
Foundation

Speed/Time plot, by lane

oneminutetrafficdata - what can you do with it?

- Long closure to rebuild barrier on flyover - reconstruct events.
- Compliance with messages/VSL/speed limits
- Undertaking, stopping distance
- Traffic mix/levels
- Clear-ups
- Predictions?
- Ease of use - no software cost

Thank you

Dr. Ivo Wengraf
Research and Data Manager
RAC Foundation 89-91 Pall Mall, LONDON
SW1Y 5HS

ivo.wengraf@racfoundation.org
www.racfoundation.org
@racfoundation

RAC Foundation