

Our ref: CRS 709349
Your ref:

Dr [REDACTED]
[REDACTED]

[REDACTED]
Senior business coordinator
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Direct Line: [REDACTED]
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11th August 2014

Dear [REDACTED]

Thank you for your request for information about traffic counting/surveys traffic count data. Your request was received on 12th July 2014 and I am dealing with it under the terms of the Freedom of Information Act 2000.

Following an exercise to recover the information required, I can confirm that not all of it is held centrally and therefore we have estimated that the cost of compiling your request will exceed £600. Section 12 of the Act does not oblige us to comply with requests if they exceed this limit. However we can provide you with some of the information requested in your three questions below.

1. *What manual or electronic devices does the HA use for traffic counts? Please provide manufacturer, model and purchase/rental cost.*

The electronic devices vary; the Highways Agency (The Agency) has a network of [traffic sensors](#) on the strategic road network (SRN); mainly inductive loops installed in the road and some radar technology, which are designed to capture traffic flow information. The Agency also uses automatic number plate recognition (ANPR) cameras.

These traffic sensors are generally connected to an outstation (motorway devices), which allows the transfer of data to the Regional Control Centres (RCC). Sensors are generally located at intervals of 500 metres along the carriageway.

Each outstation continuously monitors vehicle data on a per lane basis. Vehicle counts, together with speed, headway and length data for individual vehicles are calculated. This information is then utilised to operate the traffic management system allowing automatic speed control on the carriageway.

The Agency uses Wavetronix (MWB Business Exchange Place, 1 Farnham Road, Guildford, Surrey, GU2 4RG, UK) sensors in some areas that can supply speed, count and LGV density.

Traffic surveys and annual traffic counts are occasionally carried out in preparation for a scheme by third party companies, such as Skyhigh (formerly Count On Us).

As an example, one of the Agency's service providers, Connect Plus, utilises external contractors who install loops or radar units. The radar units are generally maintained by a

regional technology maintenance contractor, called Telent. The radar unit's approximate cost is £15,000. The approximate cost of replacing a loop is £3,500.

Connect Plus also advise that they use electronic traffic counters manufactured by Diamond (3M), model number Idris DR 420. The Golden River Marksman 660 is another system used by service providers.

2. If the HA [also] undertakes manual counts, how many such counts occurred over the previous two years and what was the average cost (in terms of staff/equipment)?

The Agency does not hold a database on the traffic counts undertaken, as manual counts are conducted on a scheme by scheme basis and are only implemented when the need arises. The cost of these surveys is normally part of the design cost of any scheme for different parts of the business i.e. renewals and improvements. Plus some may have been issued for preliminary design work that was never constructed.

The Agency does not rely or have a formal arrangement with one specific company. Costs vary on manual counts, depending on what is being counted (just vehicles, all movements, cyclists, pedestrian etc.), the number of lanes and the length of time taken to conduct the survey.

In terms of staff and equipment expenditure, the Agency doesn't have any staff directly on site undertaking surveys or supply any dedicated equipment. While there will be personnel costs associated with the analyses and interpretation of such figures, this would not be impossible to extract from the design cost of any given scheme that employs a traffic count.

One Agency contractor, who has carried out site specific traffic counts over the last couple of years, has set up videos to count the amount of traffic for a particular [Pinch Point scheme](#). This could be considered as a manual survey. However, no specific cost information is currently available.

3. What data does the HA collect from traffic counts? e.g. class, speed, etc

Typically, traffic counts will record numbers of vehicles, vehicle length and speed. Location and direction of travel information is inherent from the placement of the counting system. Some counters do not measure speed, or wheelbase length accurately enough for the figures to be meaningful and, therefore, some sites just count flow. Time-averaged statistical data, derived from vehicle counts and individual vehicle data, is reported to the RCC in station as traffic data.

In one particular area the Agency has requested that the supplier monitors vehicles over 5.2m in length are counted hourly, all day, every day.

The Agency obtains traffic count data predominantly via inductive loops. This data is broken down into four categories by vehicle measurements (0-520mm, 520-660mm, 660-1160mm, 1160mm+).

There are different types of loops currently installed on the SRN. When fully enabled, MIDAS (Motorway Incident Detection and Automatic Signalling) loops provide one minute average spot speed and flow data from each lane of the motorway. Other loop types give the same speed and flow data aggregated in five minutes, 15 minutes or hourly intervals.

More recently radar technology has been approved for the collection of this data. There is a very limited number of radar sites currently deployed, but there are longer term plans to utilise these more. The data obtained from radar sites is the same as that collected by the inductive loops.

The Agency also collects journey time and average speed information from GPS data (via Trafficmaster GPS). Trafficmaster GPS data comes from in-car technology, which is installed in a subset of vehicles that utilise the SRN. Trafficmaster GPS data and a vehicle classification file are supplied by Trafficmaster Ltd. The data consists of all recorded observations (nominally at 10 second intervals) from each instrumented vehicle and is supplied mapped to latitude and longitude coordinates.

The traffic data may be forwarded to third parties such as the National Traffic Control Centre who utilise this information for advising traffic situations to motorists via message signs on the carriageways and web sites such as [Traffic England](#).

Traffic count data on the SRN, including the manual traffic count data undertaken for all roads by the DfT, is publicly available via: <http://www.dft.gov.uk/traffic-counts/index.php>.


If you have any queries about this letter, please contact me. Please remember to quote the reference number above in any future communications.

If you are unhappy with the way we have handled your request you may ask for an internal review. Our internal review process is available at: <http://www.highways.gov.uk/foicomplaints>.

If you require a print copy, please phone the Highways Agency Information Line on 0300 123 5000; or e-mail ha_info@highways.gsi.gov.uk. You should contact me if you wish to complain. If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

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Yours sincerely


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Email: 