

Accident Cluster Sites and Fatal Road Accidents on the Welsh Trans-European Network - Transport, 2013-2015

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Introduction

This Statistical Bulletin sets out the location of identified accident cluster sites on the roads of the Trans-European Network-Transport (TEN-T) in Wales. The TEN-T in Wales represents part of the overall Welsh trunk road network, which in turn is part of the total Welsh road network. This bulletin does not cover accident cluster sites on roads in Wales other than TEN-T (see '[Exclusions](#)'). The TEN-T network in Wales is mapped on [page 2](#).

Diagram 1: Example of cluster sites

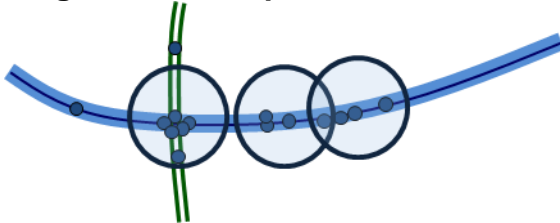


Diagram 1 shows 3 cluster sites, two of which overlap by one accident. In this bulletin, total number of accidents at cluster sites refers to unique accidents, ie. those in the overlap are only counted once.

Key points

Between 2013 and 2015 there were 50 accident cluster sites. These contain 204 personal injury accidents and 19 of these were KSI accidents meaning that they had casualties that were Killed or Seriously Injured (KSI).

- In North Wales there were 5 accident cluster sites containing a total of 25 personal injury accidents and 1 of these was a KSI accident.
- In South Wales there were 45 accident cluster sites, 179 accidents with a personal Injury and 18 of these were classed as KSI.
- On the M4 there were 18 accident cluster sites and over half of these are at or near Motorway Junctions.

About this bulletin

European Directive 2008/96/EC requires that road users be informed of locations with high accident concentrations on roads in the TEN-T.

This annual bulletin identifies such concentrations of accidents.

All references to accidents are to personal injury road accidents.

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Background

European Directive 2008/96/EC, requires specific road safety procedures for the TEN-T. One of these procedures is the identification, analysis, ranking and targeting of road sections with the highest potential for reducing accidents. In order to achieve this objective, the directive requires that road users be informed of locations with high accident concentrations. This annual statistical bulletin publishes the location of accident clusters on the TEN-T roads in Wales.

Trans European Network – Transport (TEN-T)

The TEN-T is a network which comprises roads, railway lines, inland waterways, inland and maritime ports, airports and rail-road terminals throughout the 28 Member States. This characteristic is a key factor for the network's efficient, safe and secure operation, using seamless transport chains for passengers and freight.

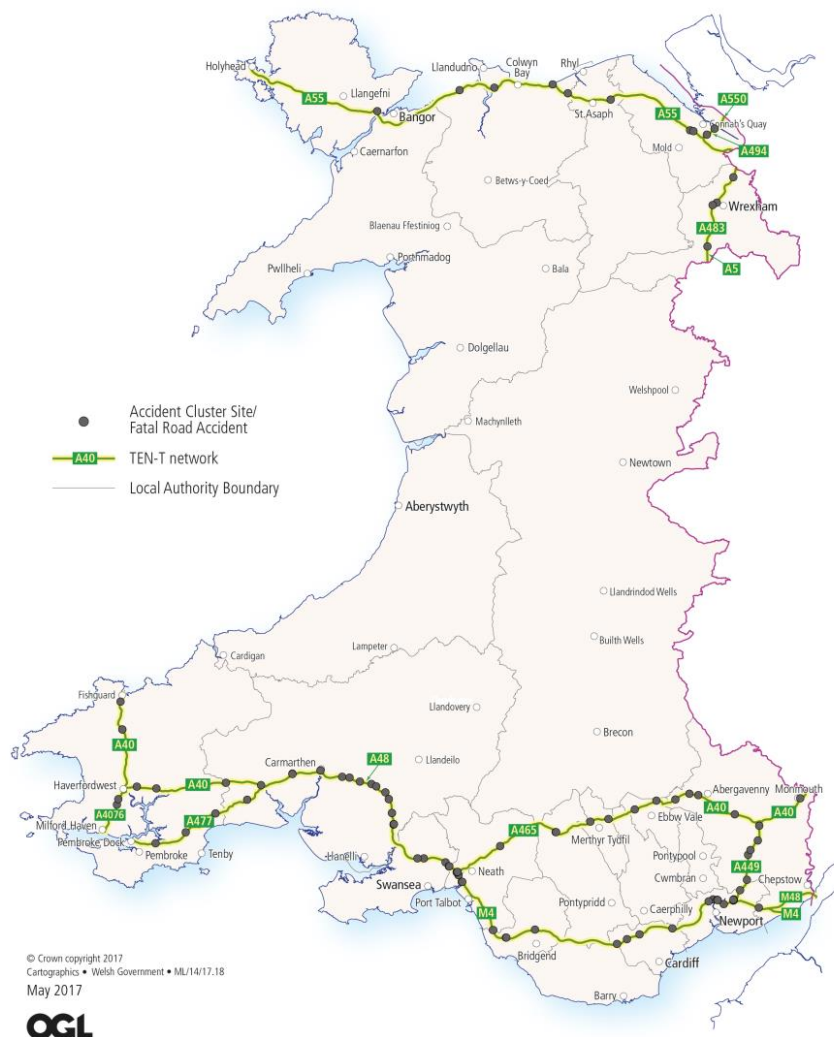
The TEN-T roads in Wales are shown on Map 1 (right) and listed on page 5.

The section through North Wales runs from Holyhead in the West to the border with England in the East.

In South Wales it runs from Fishguard and Milford Haven in the West to the English border on the M48, M4 and A40.

Map 1: TEN-T roads in Wales

Accident Cluster Sites and Fatal Road Accidents on the Welsh Trans-European Network - Transport, 2013-2015



Accident cluster sites

The criterion used to identify potential cluster sites for this statistical bulletin is that there were at least 4 personal injury road accidents in a 3-year period within a 100m diameter. The 3-year period covers 2013 to 2015 inclusive.

In North Wales there were 2 accident clusters identified on the A55, two cluster sites on the A494 and one on the A483.

In South Wales there were 18 cluster sites identified on the M4. Along the A465 between Abergavenny and Neath 8 cluster sites were identified. There were 3 accident clusters on the A449 and a further 8 sites on the A48. There was one cluster site on the A40 between Abergavenny and the border to England while further west there were 6 cluster sites on the A40 between Carmarthen and Fishguard and another on the A4076 between Haverfordwest and Milford Haven.

Care should be taken when interpreting the cluster sites on the M4, as it is the busiest road in Wales in terms of traffic volume. The M4 measures 133 kilometres in Wales out of a total road network of just over 34,600 km¹ and in 2015 traffic volume on it was 3.68bn vehicle kilometres out of the total Welsh figure of 28.4bn vehicle kilometres ².

Maps showing the TEN-T roads in Wales are on the following page and the accident cluster sites and locations of fatal road accidents are indicated. The accident cluster sites on the Welsh TEN-T network are listed in a series of tables that can be found on the [Statistics & Research website](#).

Where online tables are not provided for roads of the TEN-T routes detailed below, then no Cluster Sites or Fatal accidents have been identified.

Table 1: Accident clusters and fatal accidents on Welsh TEN-T, 2013-15

TEN-T roads	Number of Cluster Sites	Total Accidents at Cluster sites	KSI Accidents at Cluster sites	Fatal Accidents on TEN-T roads
M4	18	69	6	9
A449	3	12	0	7
A48	8	36	2	4
A40	7	30	6	6
A465	8	27	4	6
A4076	1	5	0	1
A55	2	10	0	6
A494	2	11	0	0
A483	1	4	1	3
A5	0	0	0	0
A477	0	0	0	4
M48	0	0	0	0
A550	0	0	0	0

Source: Welsh Government analysis of Stats19 Road Accident data

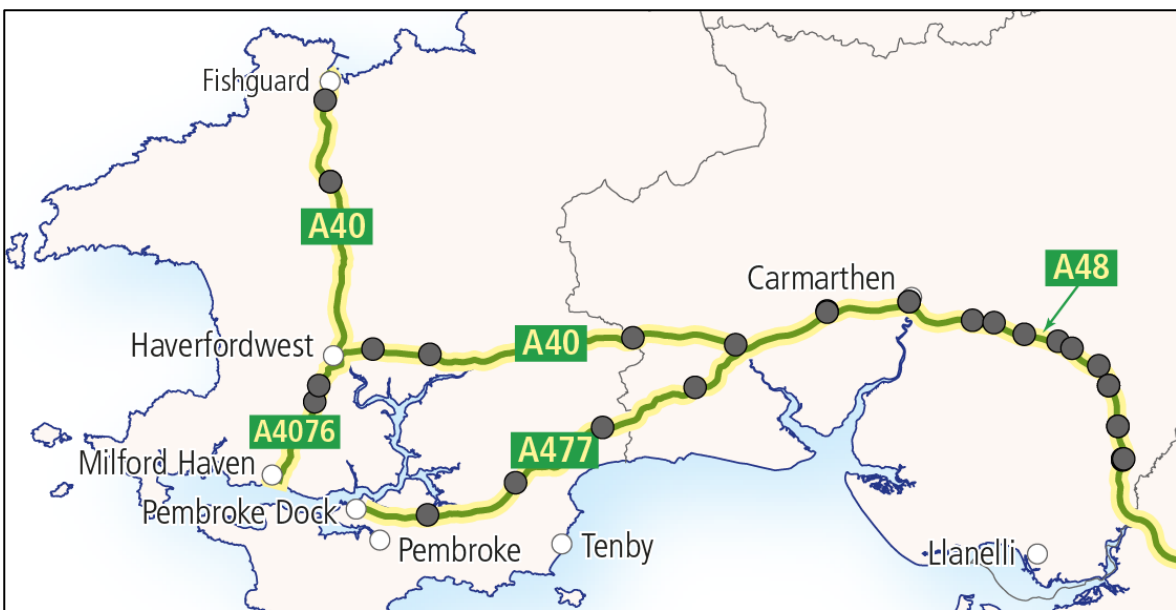
¹ [Road Lengths & Conditions in Wales, 2015-16](#)

² [Road Traffic in Wales 2015](#)

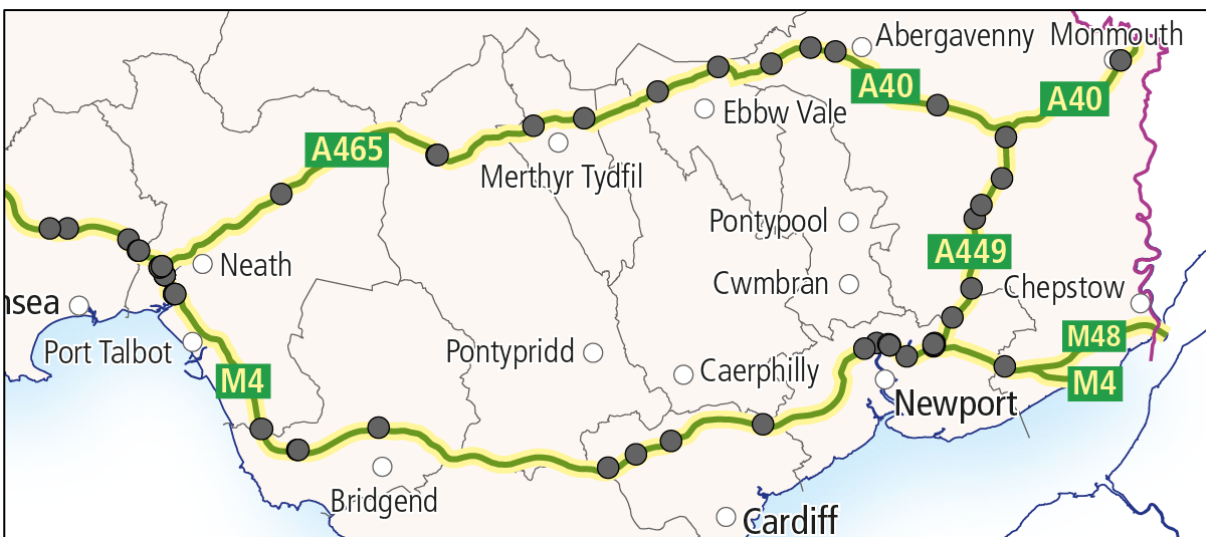
Map 2: Accident clusters on TEN-T in North Wales, 2013-15



Map 3: Accident clusters on TEN-T in South-west Wales, 2013-15

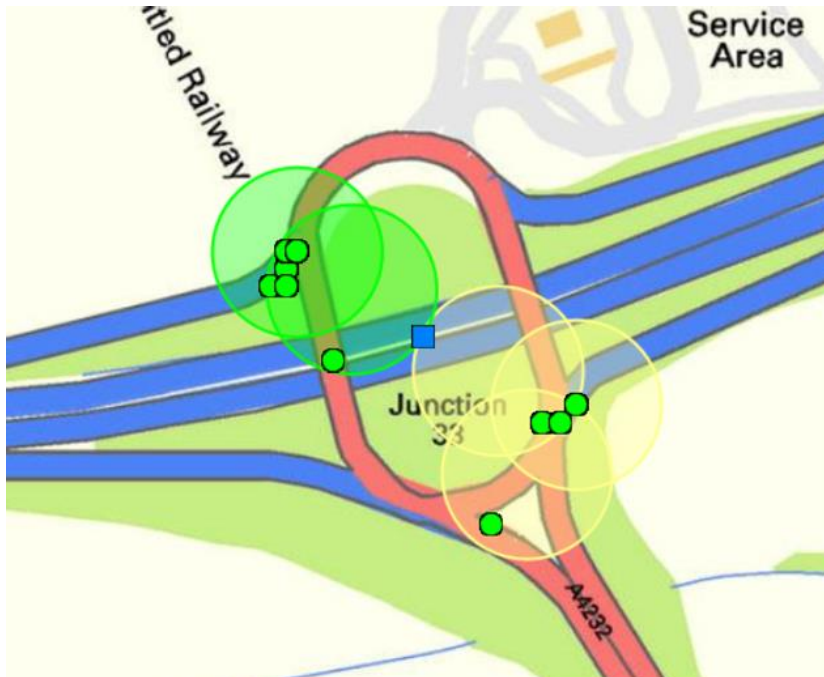


Map 4: Accident clusters on TEN-T in South-east Wales, 2013-15



Methodology for identifying clusters

An example of a cluster site is illustrated below with the collisions recorded around Junction 33, Cardiff West along the M4. As shown, there is an overlap in terms of accidents across some of the cluster sites though we have used 'unique' accidents for the purpose of total accidents at cluster sites, so those accidents in the overlaps are counted only once.



Exclusions

The purpose of this bulletin is to provide information on the high accident concentration sections on the TEN-T, as required by the European Directive. It does not provide information on cluster sites and fatal collisions across all the trunk roads or country roads network (maintained by the Local Authorities). Additionally it does not reflect Welsh Government's priorities for addressing collision sites in Wales.

Routes on the Welsh element of the Trans-European Road Network (TEN-T):

- M4: Entire length (English border to Pont Abraham roundabout)
- M48: Entire Length (English border to M4 J23 Rogiet)
- A48: Pont Abraham to Carmarthen (Pont Abraham roundabout to Pensarn roundabout junction with A40)
- A40: Carmarthen to Fishguard Harbour (Pensarn roundabout to Goodwick roundabout)
- A477: St Clears to Pembroke Dock (St Clears roundabout junction with A40 to Waterloo roundabout)
- A40: English Border to Abergavenny (English border to Hardwick roundabout junction with A465)
- A449: Raglan to M4 Motorway (Raglan junction with A40 to Coldra roundabout junction with M4)
- A465: Abergavenny to Neath (Hardwick Roundabout junction with A40 to Llandarcy roundabout junction with M4)
- A55: English Border to Holyhead (English Border to Holyhead port end of A55)
- A494: Ewloe to Deeside Park (Ewloe junction with A55 to Deeside Park interchange with A550)
- A550: Deeside Park to English Border (Deeside Park interchange with A494 to English border)
- A5: English Border to Halton (English border to Halton roundabout junction with A483)
- A483: Chirk to English border (Halton roundabout junction with A5 to English border)
- A4076: Haverfordwest to Milford Haven (Salutation Square roundabout to Victoria Bridge roundabout)

Key quality information

1 Context

The cluster site criterion of four personal injury accidents in three years in a 100m radius is contained in the Welsh Government document entitled “Guidelines for the Submission of Road Safety Schemes”. Below is an extract from the section of this document that deals with the identification of sites:

"The assessment of the network should involve the study of collision patterns for a specified period (e.g. 3 years) according to location, circumstances and the vehicles and casualties involved and to subsequently compare them with national and regional averages The current criterion used for selecting clusters is 4 personal injury collisions in a 3 year period within a 100m radius."

These sites, and the sites of fatal accidents, were identified using the ‘Welsh Government Accident Recording and Analysis Program’ to analyse Stats19 Road Accident data.

1.1 Related Publications

Related publications are available from the following link:

[Welsh Government Statistics & Research: Transport](#)

2. Definitions

Accidents/Road Accidents: A personal injury accident which occurs on the public highway.

KSI Accident: A road accident in which one or more casualties are Killed or Seriously Injured.

3. Relevance

There are a variety of organisations that use the Welsh road traffic accident and casualty data. The Welsh Government uses road traffic collision and casualty data to help set road safety policy. It is also used for performance indicators, both for the Welsh Government’s Transport Strategy and for some Health Performance indicators. They are also component indicators in the Welsh Government’s Child Poverty, Programme for Government and Sustainable Development indicators.

Other users include Highway Authorities, covering the Welsh Government, which is responsible for the motorway and trunk road network, and local authorities, which are responsible for other roads in Wales. Other bodies involved in road safety include the Safety Camera Partnership, Trunk Road Agents, and Police & Community Safety Partnerships.

4. Accuracy

The statistics refer to personal injury accidents on public roads reported to the police and forwarded to the Welsh Government. The police compile statistical data about road traffic accidents and casualties (called Stats19 data) for the Welsh Government and the Department for Transport (DfT). This follows police attendance at accidents that involve any personal injury, together with members of the public reporting personal injury accidents directly to the police.

There is some possibility of under-reporting and under-recording as well as for the misclassification of accidents though these are minimised by local authorities and the Welsh Government

conducting a number of data validations. For example, Welsh Government data analysts may query the location of an accident with a police force when the grid reference of an accident is in a different local authority to the one specified in the data return. These issues are discussed in more detail in a Statistical Article '[Quality Report for Welsh Road Casualties](#)'.

This data is obtained from administrative sources and thus may be affected by changes in procedures within those systems.

This article also summarises the sources and methods used to compile the road accident and casualty figures for Wales. It also reviews the quality of the resulting figures in terms of the six dimensions of statistical quality of the European Statistical System. The aim is to provide background information about road casualty statistics for Wales in a single document for all users of the published statistics.

5. Timeliness and punctuality

Statistics on Police recorded road casualties for Wales in 2015 were first published on 28 June 2016 and are being followed by a number of Statistical Bulletins that are intended to provide users with more information. Related publications are available from the [Statistics & Research website](#).

Results for Great Britain were published by the Department for Transport in June 2016 in "[Reported road casualties in Great Britain main results: 2015](#)".

6. Accessibility and clarity

This Statistical Bulletin is pre-announced and then published on the [Statistics & Research website](#). Road Accident statistics for Wales will be added to the [StatsWales website](#) in due course:

7. Comparability and coherence

One accident may give rise to several casualties. Casualties are subdivided into killed, seriously injured and slightly injured categories. Casualties reported as killed include only those cases where death occurs in less than 30 days as a result of the accident. They do not include those who died as a result of natural causes (e.g. heart attack) rather than as a result of the accident, nor do they include confirmed suicides.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016 and this release does not include any of the national indicators.

Information on indicators and associated technical information - [How do you measure a nation's progress? - National Indicators](#)

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

Further details

The document is available at:

<http://gov.wales/statistics-and-research/accident-cluster-sites-fatal-road-accidents/?lang=en>

Next update

May 2018

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided to:

stats.transport@wales.gsi.gov.uk

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