



SPEED COMPLIANCE TOOL USER GUIDE

INTRODUCTION

PURPOSE OF THE DASHBOARD

The Speed Compliance Tool is designed for the interrogation of individual road sections or multiple road sections for the comparison of a range of recorded speeds against the posted speed limit.

The dashboard shows speed limits for individual road segments based on the OS MasterMap Highways network, and seven further values of recorded vehicles speeds at different times of the day and week. Coverage is widespread for the vast majority of roads.

MAP LAYERS

The Speed Compliance Tool allows comparison of the following recorded annual average speeds for each road section;

- All Day Average Everyday
- AM Peak Average 7am – 9am, Monday – Friday
- Off Peak Average 10am – 4pm, Monday – Friday
- PM Peak Average 4pm – 7pm, Monday – Friday
- Evening Average 7pm – 11pm, Everyday
- Night-time Average Midnight – 4am, Everyday
- Weekend Average 7am – 7pm

- All Day 85th percentile Everyday
- AM Peak 85th percentile 7am – 9am, Monday – Friday
- Off Peak 85th percentile 10am – 4pm, Monday – Friday
- PM Peak 85th percentile 4pm – 7pm, Monday – Friday
- Evening 85th percentile 7pm – 11pm, Everyday
- Night-time 85th percentile Midnight – 4am, Everyday
- Weekend 85th percentile 7am – 7pm

And

- Modelled Annual Average Daily Traffic (AADT)

For information on how the data for these layers is collected please see the Speed Compliance Tool Frequently Asked Questions (FAQs).



SPEED COMPLIANCE TOOL USER GUIDE

ACCESSING SPEED COMPLIANCE TOOL

The Speed Compliance Tool is accessed through the Esri ArcGIS Online portal using a Username and Password.

Sign in to RSA / Agilysis with

ArcGIS login

Keep me signed in

[Sign In](#)

[Forgot username?](#) or [Forgot password?](#)

Not a member of this organization?
[Sign in to your account on ArcGIS Online](#)

[Privacy](#)

If you leave it too long before entering your login details you will get a 'Your session has timed out – Please try again' message.

Sign in to RSA / Agilysis with

Your session has timed out. Please try again.

ArcGIS login

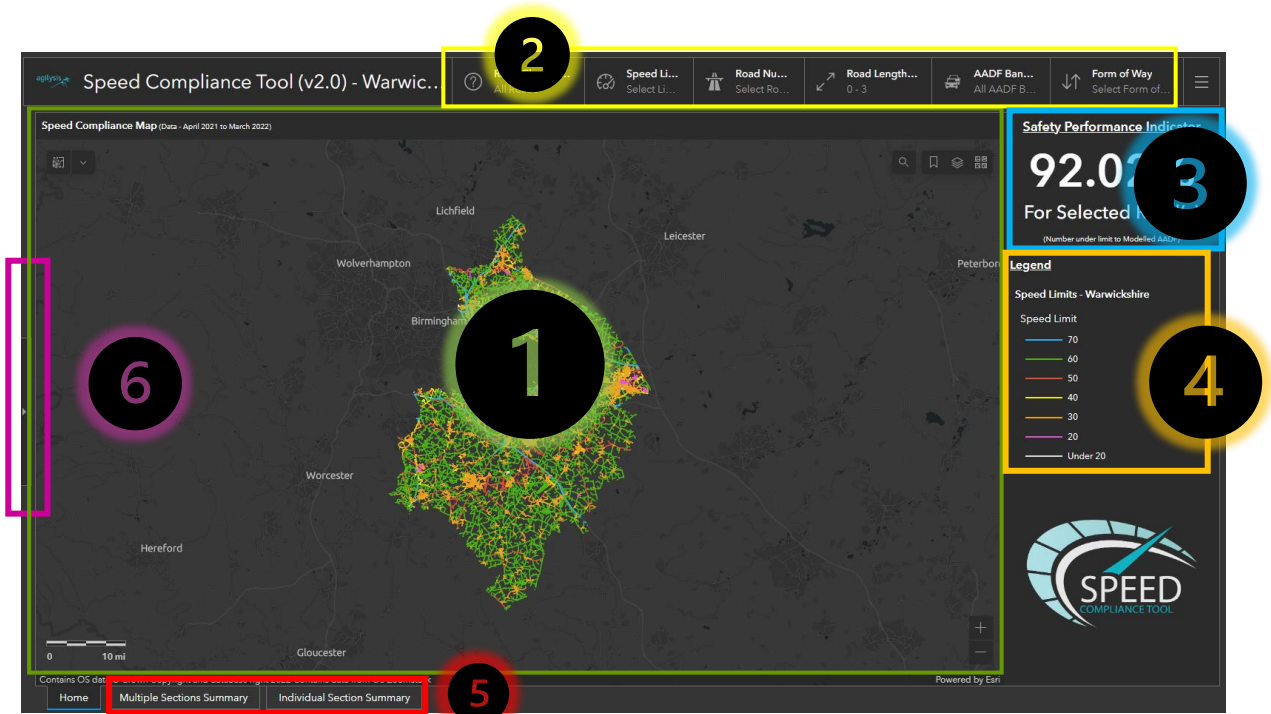
Keep me signed in

[Sign In](#)

SECTION 1: THE DASHBOARD - HOME

DASHBOARD LAYOUT

Once logged into the Speed Compliance Tool you will see the home dashboard page which is split into 6 parts.



1 Interactive Map

4 Legend

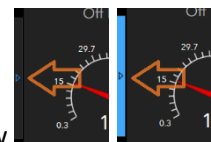
2 Road Filtering Tools

5 Dashboard Tabs

3 Safety Performance Indicator

6 Speed Compliance Filters

Element 6 is a 'hover' panel and is hidden by default. By clicking on the white arrow in the centre of the right edge of the Dashboard, the panel will slide into view. Clicking on this tab

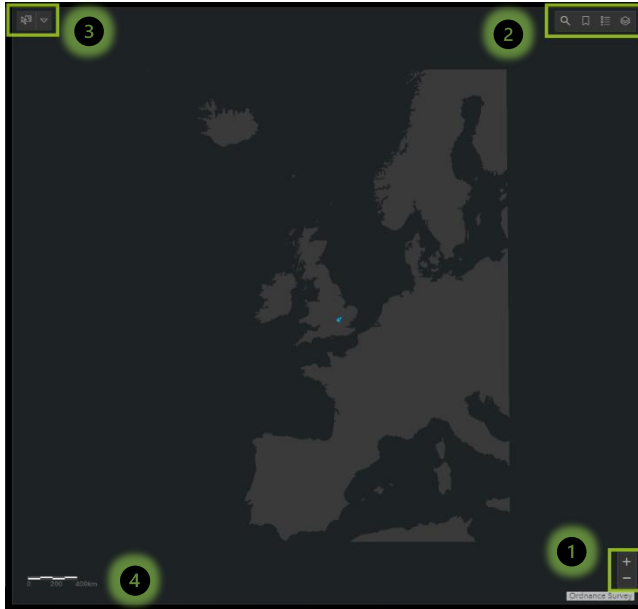


again and the panel will slide out of view. It is discussed in full in the 'Speed Compliance Filters' section.



1.1 INTERACTIVE MAP 1

The Map takes up the centre of the Dashboard and is used to query and select individual or multiple sections of road.



There are several buttons around the edges of the map area, highlighted by green boxes – these are explained below.

NAVIGATION: 1

The easiest way to navigate the map is by using the mouse. You can pan around the map by clicking, holding, and dragging with Mouse button 1 and you can zoom by using the mouse wheel.

The zoom can also be changed by using the **+** and **-** buttons at the bottom right of the map.

INTERACTION 2

There are 4 buttons at the top right of the map

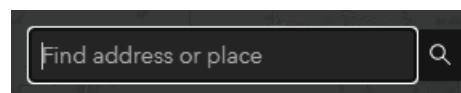


These are (left to right) **1. Search**, **2. Bookmarks**, **3. Layer List**, **4. Basemaps**

1. Search



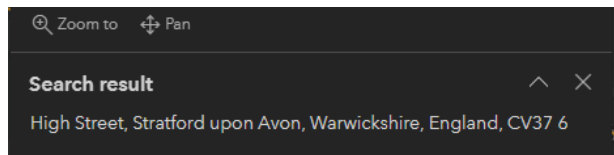
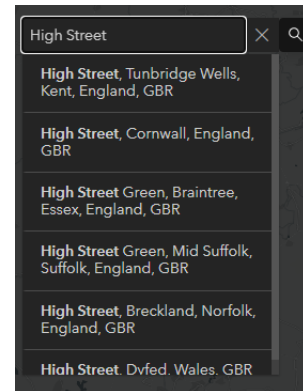
Clicking on the search button brings up the search bar



Typing in the search bar will start to display addresses, narrowing the search. As you type more details a dropdown of possible matches will be displayed.

By clicking on the correct location match, the map will zoom to that location.

A small circle will display showing the centre of the location and a pop-up window will display details of the location.



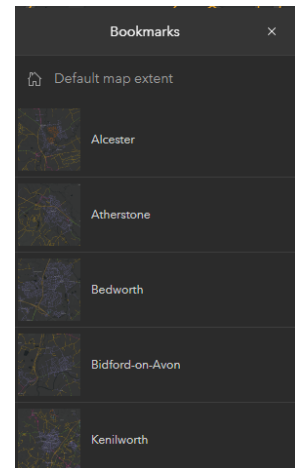
Clicking anywhere on the map will make these disappear.

2. Bookmarks

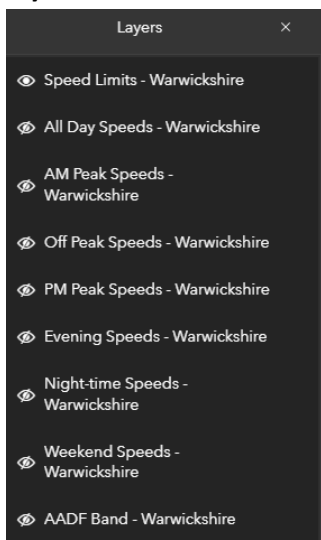
Clicking on the Bookmarks button will display a drop-down list of locations that can be zoomed to directly.



By simply clicking on one of the locations in the list, the map will zoom to a predetermined extent, making it easy to locate larger urban areas on the map.

The 'Default Map Extent' will zoom to the initial Dashboard map view.



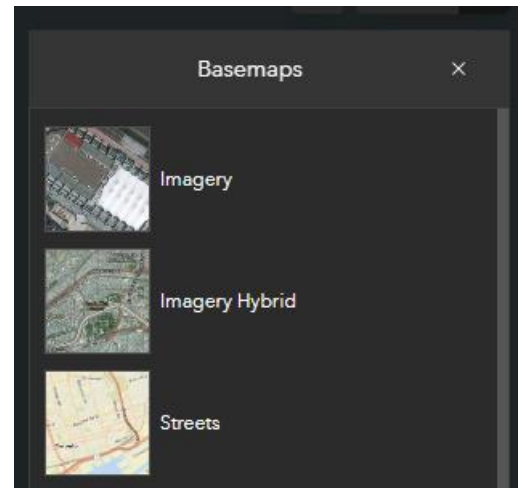
3. Layer List





Clicking on the Layer List button opens the Layer List window displaying the list of available layers. Simply toggle the layer visibility by clicking the Layer On  or Layer Off 

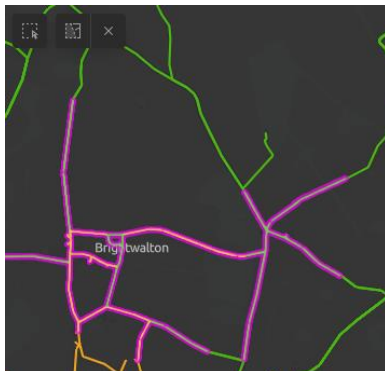
4. Basemaps

Clicking on the Basemaps button will open a window displaying a list of background maps – you can choose any of the basemap formats by clicking on a map in the list.





SELECTION

The final button, top left is the select tool , used to select route sections on the map. When clicking on the button it will change to blue  to show it is active.



Selected features will be highlighted in pink.


If you pan the map away from the selected sections you can quickly navigate back by clicking on the  to show the selected section(s).

Clicking on the cross  next to the 'Show selected' button will deselect all features.

If no features are found  is displayed below the selection tool.


Note: The selection tool only works when the 'Speed Limits' layer is active.

SCALE BAR

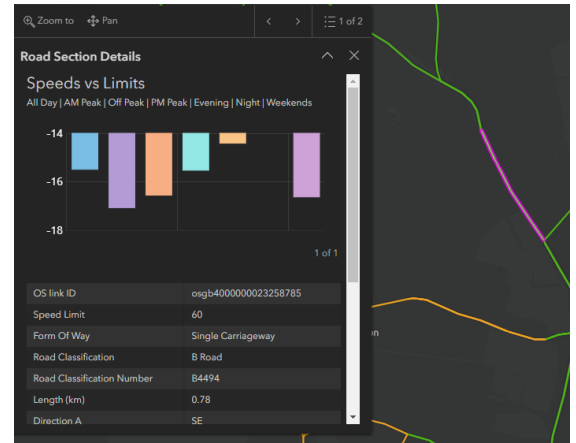
There is a scale bar in the bottom left of the map.  The value displayed will change dynamically with the map scale

ROAD SECTION DETAILS

Clicking on a feature on the map will display a pop-up of attributes about the selected feature. The selected feature will be highlighted on the map.

The pop-up can be closed by either clicking anywhere on the map or by clicking the  button at the top right of the pop-up.

Users can zoom in and out of the bar chart and pan left or right when zoomed in to focus on a specific element.



Note: The attributes displayed will be different for different layers.

When single sections have been selected, attributes may be viewed in larger format on the Individual Section Summary tab. (See Section 3 for more information)

1.2 ROAD FILTERING TOOLS

2



Along the top of the Dashboard are several category selectors. These are used to filter the number of route sections visible and selectable in the map.



Routes may be filtered by;

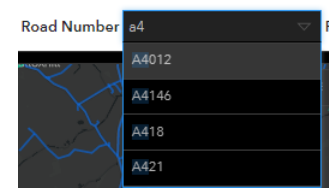
- Road Classification,
- Speed Limit,
- Road Number,
- Road Length
- AADF Bands
- Form of Way

Road class, speed limit, road number, AADF bands and Form of Way are drop-down category selectors. Clicking on the box will display a list of attribute values from which a single or multiple categories may be selected.

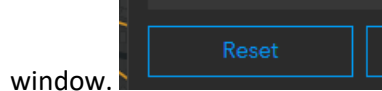
Road number may also be entered manually by typing in the box.

Using the road length filter, the length of selectable features can be limited using minimum and maximum values. The default maximum value will reflect the longest individual section length from all sections shown on the map.

Both values can be typed into the box or can be incrementally increased and decreased by 1m at a time using the  and  buttons.




Any of the filters may be cleared by clicking the reset button at the bottom of the drop-down



window.

Filtering the attribute values via the drop-down category selectors will filter the features shown on the map, the interactive charts for multiple sections (Tab 2) and the Safety Performance Indicator in accordance with the selected criteria.

The drop-down category selectors may be closed by clicking anywhere on the screen.

When you start using the filters a reset button  will appear at the bottom right of the screen. This lets you reset the Speed Compliance Tool to the initial state, resetting all the filters and returning the map to the full extent.

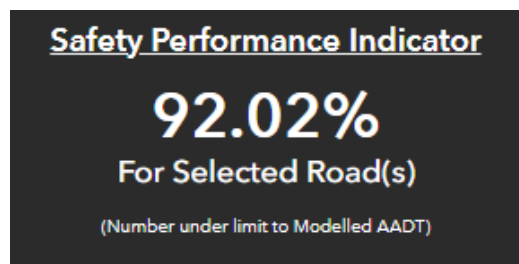
This saves time from having to remember which filters are active when there are a number in use and having to reset each one individually.

1.3 SAFETY PERFORMANCE INDICATOR

3

This shows the number of recorded vehicles with speeds below the registered speed limit as a percentage of total modelled traffic (AADT).

The value applies to the roads selected at any one time and will update as filters are applied to the map layer.

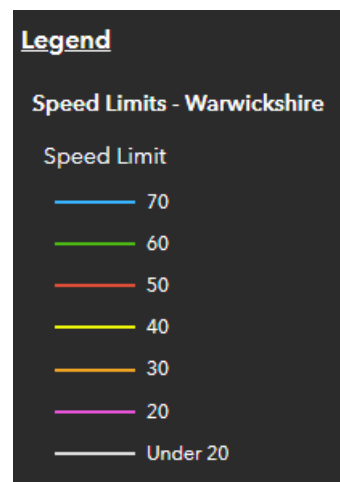


1.4 LEGEND

4

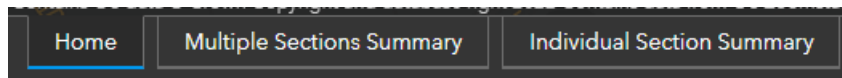
The legend defines the features on display in the map.

It will change in accordance with the map layer on display. When multiple map layers are toggled on at any one time multiple legends will show and can be viewed using the scroll bar to the right of the legend.



1.5 DASHBOARD TABS

5

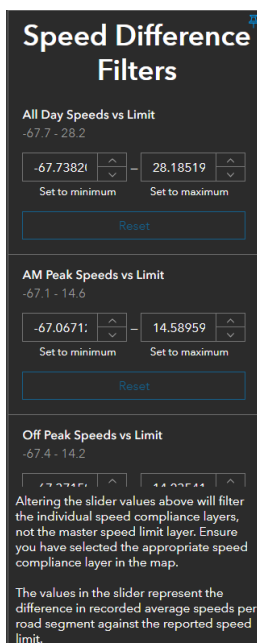


Users can switch between dashboard pages to view different information in the Speed Compliance Tool on all, multiple or single road sections.

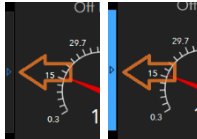
The dashboard page on current display will be highlighted by a blue line below the page title.


1.6 SPEED DIFFERENCE FILTERS


6

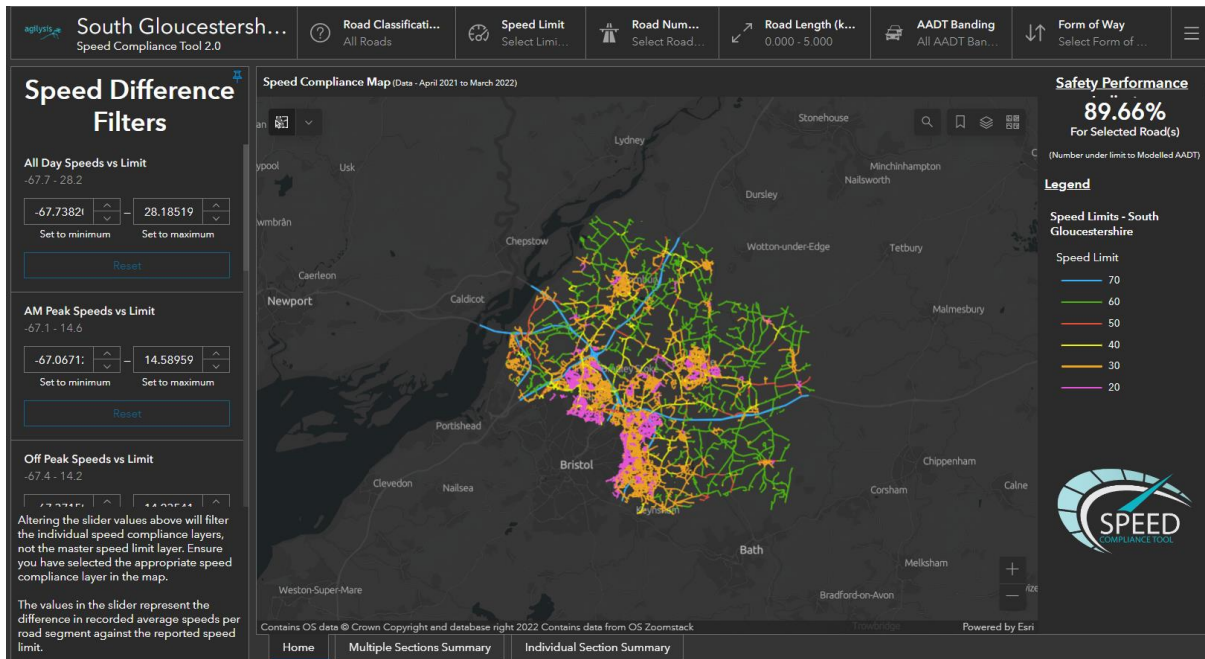



The 'Speed Difference Filters' is a hover panel that is hidden by default.

By clicking on the white arrow  in the centre of the right edge of the Dashboard, the panel will slide into view. Clicking on this arrow


again the panel will slide out of view. 

The panel can be pinned in place by clicking on the  icon, at the top right of the panel to stop it obscuring the map. The map will resize to fit.



Clicking on the  icon will return the panel to a 'hover' panel and it can be hidden when not needed.

There are 7 filters on the panel that correspond to the 7 speed time periods. They work in conjunction with the corresponding map layers'.

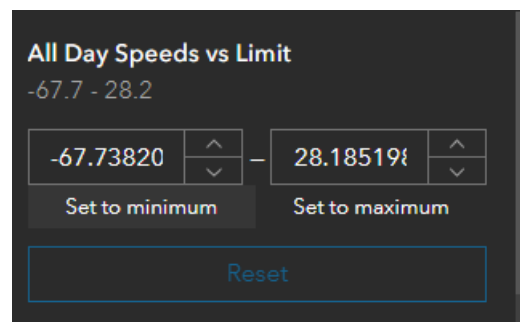
You need to make sure the correct layer is selected from the layer list. 


The values in each filter represent the difference in recorded average speeds, relative to each time period, against the reported speed limit. The minimum and maximum values represent the maximum difference in speeds under the speed limit (-ve value) and the maximum difference in speeds above the speed limit (+ve value).

The values can be adjusted by changing the value in the box

On changing either the minimum or maximum value the corresponding map layer adjusts the number of road sections displayed.

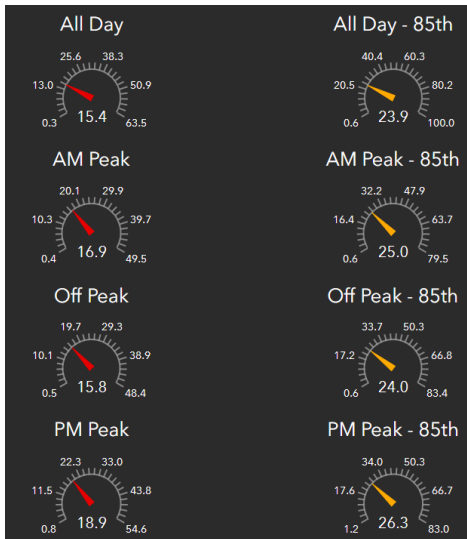
The values do not automatically reset when the hover panel is closed so remember to click on the reset button under each.



These filters will also be reset when you click on the Dashboard reset button .

SECTION 2: MULTIPLE SECTIONS SUMMARY

The second page of the Speed Compliance Tool dashboard shows series of dials illustrating the average and 85th percentile vehicle speed (mph) for multiple road sections. There are two dials for each of the 7 time periods.



By default each dial will show the average or 85th percentile speed value for all roads.

The minimum and maximum speeds on the dials are the minimum and maximum average or 85th percentile speeds recorded for that time period.

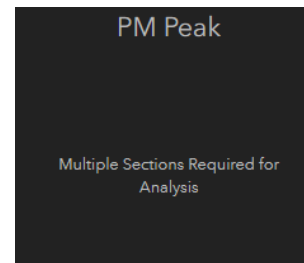
The dials will update in the following instances –

- When any of the road filters are applied
- When multiple roads are selected using the selection tool.

The number of sections to which the speeds on the dials relate is confirmed at the top of the page.

Multiple Section Details: Average Vehicle Speeds (mph) of 42,279 selected sections

If a single road section is selected the dials are replaced by a 'Multiple Sections Required for Analysis' message.



If insufficient data is available within an individual time period from which to calculate average or 85th percentile speeds then the message 'No Data' will be displayed.

SECTION 3: INDIVIDUAL SECTION SUMMARY

When a single road section is selected in the map on the Home tab of the dashboard, a detailed breakdown of the speeds are provided on this tab.

The tab has been designed in a suitable format from which data may be copied to an alternative output format, or from which screenshots may be taken in order to share the results of road section analysis with others.

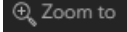
Note: Any screenshots of the map must include the copyright statement (see Section 6 for more information)

Above the map are details about the selected road section.


This will include road number (if applicable), section length, speed limit, direction of flow A & B, road class and form of way.

Road Section: A45 | Length: 1.42km
Speed Limit: 50mph | Direction - A: SE / B: NW
A Road - Dual Carriageway

3.1 MAP

The map can be focused on the selected section by clicking on the 'Zoom to'  button at the top of the pop-up on the Home Tab.



The map style may be changed by clicking on the icon in the top right corner of the map  and selecting one of the map options in the drop-down list.

3.2 SUMMARY DETAILS

Below the map is a summary of compliance levels for the selected section including;

- the percentage and number of recorded speeds over the registered speed limit
- the percentage and number of recorded speeds over the relative ACPO threshold
- the percentage and number of recorded speeds more than 15mph above the registered speed limit
- the all day average and all day 85th percentile speed.

Percent over Limit	Number over Limit
31.9%	7,664
Percent over ACPO	Number over ACPO
3.1%	749
Percent over 15mph Above	Number over 15mph Above
0.0%	7
All Day Average Speed	All Day 85 th Average Speed
47.6mph	52.8mph

3.3 FULL DETAILS

On the right-hand side is a detailed breakdown of average and 85th percentile speeds in both combined and individual directions of flow for each of the 7 time periods. Plus the difference between the combined flow average speed and the registered speed limit in each time period.

The right-hand side offers a full breakdown of average speeds combined and bi-directional, 85th percentile speeds, combined and bi-directional and the difference between the combined direction average speed and posted speed limit across each of the 7 time periods for the selected road section.

All Day (Everyday)						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
47.64	47.64		52.85	52.85		-2.36
AM Peak 07:00 to 09:00 Monday to Friday						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
43.20	43.20		52.63	52.63		-6.80
Off Peak 10:00 to 16:00 Monday to Friday						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
46.84	46.84		51.81	51.81		-3.18
PM Peak 16:00 to 19:00 Monday to Friday						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
47.58	47.58		55.34	55.34		-2.42
Evening 19:00 to 23:00 Everyday						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
45.99	45.99		50.97	50.97		-4.01
Nighttime 00:00 to 04:00 Everyday						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
44.47	44.47		51.10	51.10		-5.53
Weekend 07:00 to 19:00						
Both Directions	Direction A	Direction B	85th - Both Directions	85th - Direction A	85th - Direction B	Difference
45.94	45.94		55.68	55.68		-4.06

Note: The 'Individual Section Summary' will display data when multiple sections are selected but must only be used for single sections of road.

SECTION 4: DATA ANALYSIS SCENARIOS

The following steps outline how users can interrogate the dashboard to reveal data for typical scenarios.

4.1 IDENTIFYING ROUTES SUITABLE FOR SIGNED ONLY 20MPH LIMITS

This example demonstrates how users might search for existing 30mph routes where average speeds are 24mph or less and therefore might be suitable for a signed only 20mph limit.

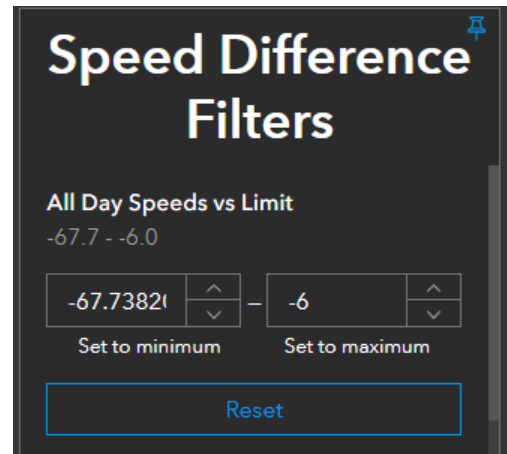


Step 1. Filter the map by 30mph speed limit

Step 2. Toggle on the appropriate time period layer, such as All Day or Off-Peak speeds and toggle off the Speed Limits layer.

Step 3. Using the Speed Difference Filters in the hover bar on the left-hand-side of the screen enter a maximum speed difference value of -6.

[Remember to use the filter that matches the selected time period layer]



The sections shown on the map should now reflect all sections where average speeds are greater than or equal to 6mph lower (24mph) than the registered speed limit of 30mph. This can be checked by clicking on a section and reading the average speed in the pop-up window.

BEFORE speed difference filter applied



AFTER speed difference filter applied



4.2: IDENTIFYING 20MPH ROUTES WITH NON-COMPLIANCE

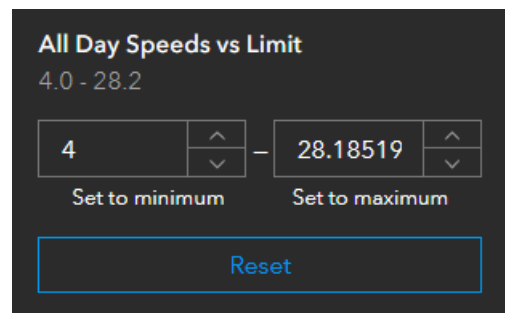
This example demonstrates how users might identify existing 20mph routes where there is non-compliance and therefore where extra attention may be required to lower vehicle speeds.

Step 1. Filter the map by 20mph speed limit



Step 2. Toggle on the appropriate time period layer, such as All Day or Off-Peak speeds and toggle off the Speed Limits layer.

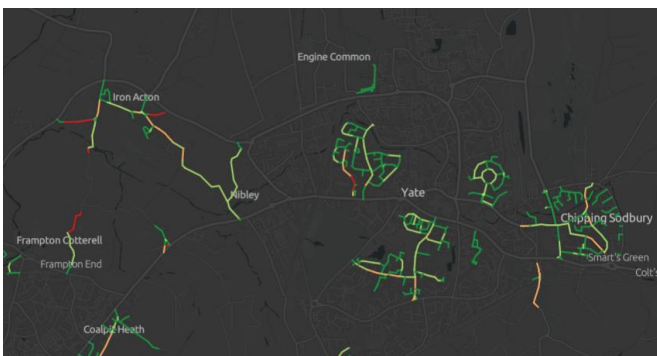
Step 3. Using the Speed Difference Filters in the hover bar on the left-hand-side of the screen enter a minimum speed difference value of 4.



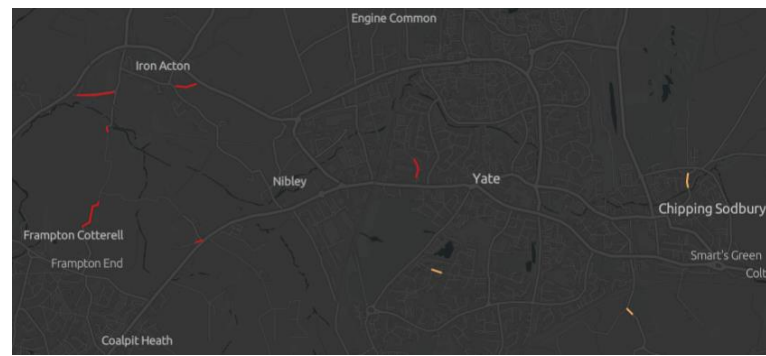
[Remember to use the filter that matches the selected time period layer]

The sections shown on the map should now reflect all sections where average speeds are greater than or equal to 4mph above (24mph) the registered speed limit of 20mph. This can be checked by clicking on a section and reading the average speed in the pop-up window.

BEFORE speed difference filter applied



AFTER speed difference filter applied

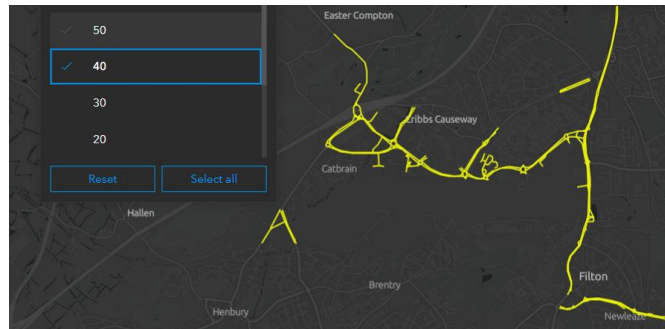


Users may wish to adjust the maximum speed difference value to capture routes where average speeds are between 20 and 24mph but where 85th percentile speeds are above 24mph.

4.3 IDENTIFYING ROUTES WITH CONGESTION

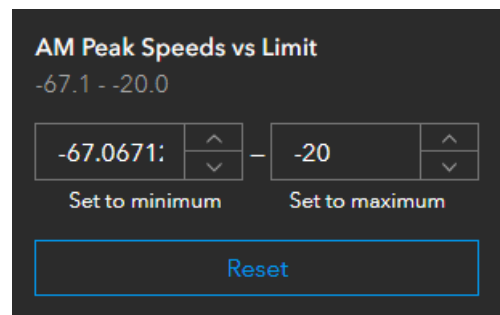
The Speed Compliance Tool could be used to identify routes where congestion occurs during peak travel periods, indicated by significantly reduced average speeds. The following steps outline an example of how the Tool can be used in this way.

Step 1. Filter the map by a speed limit of choice



Step 2. Select the AM Peak Speed or PM Peak Speed time period layer

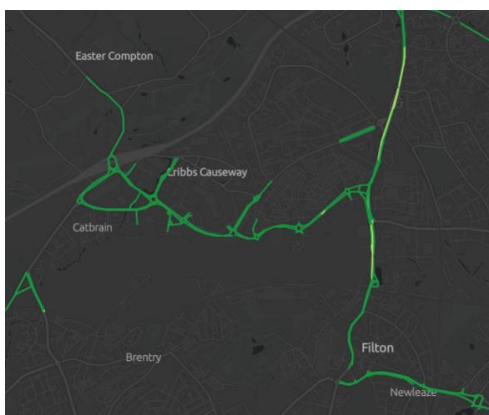
Step 3. Using the Speed Difference Filters in the hover bar on the left-hand-side of the screen enter a maximum speed difference value, for example -20.



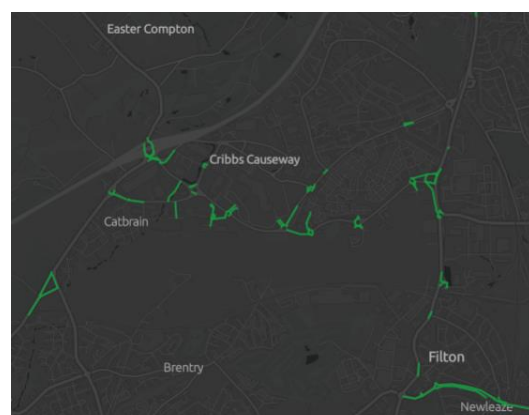
[Remember to use the filter that matches the selected time period layer]

The sections shown on the map should now reflect routes where average speeds are more than 20mph below the registered speed limit which could be used as an indicator of congestion. This can be checked by clicking on a section and reading the average speed in the pop-up window.

BEFORE speed difference filter applied



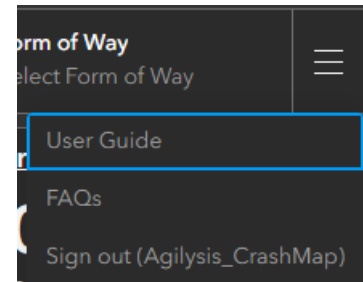
AFTER speed difference filter applied



SECTION 5: SUPPORTING DOCUMENTS

A copy of the User Guide and FAQs accompanying the Speed Compliance Tool are available from the menu button in the top right of the screen.

From this point users may also sign out of the tool when ready to end the session.



SECTION 6: LICENSING AND SHARING OF SCREEN SNIPS/GRABS

A number of customers have asked for guidance about licensing and copyright when sharing screen grabs from the speed compliance tool with in emails and reports for customers or engineering reports that may be made public. We supply the following guidance to do this and have also included this in the licence terms and conditions for the Speed Compliance Tool which we ask all new users to accept.

The following needs to be added to keep Ordnance Survey happy:

© Crown Copyright and database rights [2023] OS [*client name, *OS licence number]

You need to put in your own authority name and your OS licence number and this is your responsibility to obtain from Ordnance Survey

Please also add:

© Agilysis – Speed Compliance Tool 2023

This is a requirement, so that people know where the data came from.

Regarding sharing, you need to refer to this:

<https://beta.ordnancesurvey.co.uk/customers/public-sector/public-sector-licensing#psga-your-psga-licence-commitments-title>

These are the PSGA sharing rules which covers the base network and you may already be familiar with if you share maps or plans. In summary:

- (you can) Use OS data in your day-to-day activities to support your operations and meet your public task
- Share OS data, and your OS derived data, with other public sector organisations who are also licensed under a PSGA member licence (police, FRS etc).
- (share with) Contractors; (and for) Public Viewing



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- Do not use it to make financial gain or in any 'competing activity'. You cannot charge contractors for the data as that is 're-selling'.

It is your responsibility to read the terms and conditions but it's reasonable for you to:

- Send maps or plans with associated data to other public sector users
- Send limited details to members of the public or other third parties e.g. Schools as long as they are aware they can't break any of the licencing restrictions. Perhaps say it's for 'personal use only and must not be published without permission'
- Use the data in reports

Some of the data comes from a third party (Basemap) and they are happy for their data to be shared under the same conditions.