

# Road Network Performance and Congestion Monitoring

Since 2002 Mott MacDonald has innovated and developed technical solutions to become the market leader in congestion monitoring and network performance analysis. Using GPS sourced datasets such as Trafficmaster Historical Journey Time Data we offer a wide range of services from Origin - Destination calculations through to calculation of national performance indicators such as National Indicator 167 and Public Service Agreements. We help transport authorities to deliver on their network performance monitoring requirements and produce outputs for a range of transport planning and monitoring applications.

Our team has evolved and expanded, now comprising 12 experts specialising in GIS, software and database development and data analysis for the transport industry. Our range of skills and analytical experience provides our clients with unique opportunities to develop their transport planning and congestion monitoring capability

We offer road network performance and congestion monitoring services in two ways:

**strat-e-gis Congestion** - Our web-based GIS where licensed users are able to analyse traffic and congestion data online.

**Data Analysis Services** - Consultancy services providing bespoke data analysis on behalf of local authorities and other clients.

## strat-e-gis Congestion

An easy to use web-based GIS that allows licensed users to locate an area of interest and analyse congestion on any set of roads they require. strat-e-gis Congestion has many pre-defined queries to assist the user to extract information for specific times, dates, vehicle types and map average speeds or delays. Once a user has defined the query criteria, the results can be downloaded as a Microsoft Excel spreadsheet, GIS file, high quality image or Microsoft Word document.

Potential uses for strat-e-gis Congestion outputs include:

- NI167/PSA Indicator calculations
- Model Calibration
- Accessibility modelling
- Route analysis
- Pre and Post Scheme evaluation etc
- Local Transport Plans(LTP)

## Benefits:

- Provides alternative data source to manual journey time surveys
- Considerable time saving in accessing and using GPS based journey time data such as Trafficmaster Historical Journey Time Data
- Produces isochrones using real speeds rather than assumed default speeds or speed limits
- Provides offsite hosting and backup of the GPS based journey time data
- Avoids the need for transport authorities to purchase specialist hardware and software required to store and use the GPS based journey time data locally

## Data Analysis Services

We offer a range of traffic and transport data analysis and GIS services tailored to support individual network performance and congestion monitoring needs. Having supported the Department for Transport and Highways Agency over a number of years developing their national PSA monitoring programmes, places us in a key position to understand network monitoring requirements and the associated analysis of GPS based journey time data on a national and local scale. This with our long standing and close relationship with several major local transport authorities gives us a unique range of experience and appreciation of user needs. Our team of specialists continue to develop and innovative solutions for local, regional and national transport authorities to support a range of requirements, including;

- National and local network performance monitoring (including LAA NI 167 and urban PSA indicator calculations)
- Route and Hotspot Area analysis
- Scheme appraisal and evaluation
- Local and national transport studies
- Bus monitoring (including GPS data collection and processing)
- Origins and Destination matrices
- Travel Time Isochrone creation
- Route asset inventory capture and analysis
- Model Calibration
- Accessibility modelling

## Benefits:

- Provides a tailored solution designed for specific one-off project requirements
- Opportunity to use more advanced data analysis and GIS techniques
- Allows incorporation of a wide range of data sources such as traffic counts, incidents or route inventory
- Offers consultancy services to help design specific projects and studies

If you would like to find out anything more about these services, please contact us by email at:  
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