



Masters Dissertation Scheme Project form



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| Company / Organisation Name: | West Midlands Fire Service |
| Team / Department: | Organisational Intelligence |
| Address: | |

Provisional title for project:

Understanding the potential for a fully utilised Blended Fleet

Short description of the problem that would be addressed by the project:

The traditional, 20th Century, model of UK Fire Service response is a “one size fits all” model, with a standard fire appliance with 4 or 5 riders responding to all types of call. This model has its strengths, in that the crew is large enough and the appliance carries enough equipment to be able to deal effectively with most small incidents. It has therefore traditionally been considered safer. However, it could be considered inefficient, when it can be demonstrated that the majority of incidents require fewer personnel and equipment. WMFS would like to explore evidence around a blended fleet further, investigating spatial patterns of risk and response, to better understand the operational environment, and determine how best a blended fleet and people-based mobilising could be employed to serve the communities of the West Midlands.

Short description of the data sources that would be used in the project, and how they would be used

AVLS Data – GPS data for each appliance, giving location, speed, time.
 Mobilisation data – details of the incident type.
 Callsign data – giving status of vehicle by time.

Would any work by the student need to be carried out on site at the Company with the exception of supervisory meetings?

Not necessary, but very welcome both on fire stations, and at HQ.

Any issues of data confidentiality and IPR that would need to be resolved

Some anonymisation required on incident data, but we could potentially do that at this end.

Essential skills

GIS / Data Analysis

Desirable skills

Social science / interview / questionnaire analysis

Preferred degree programmes (if any)

Not specified, but clearly a GIS / data background would be beneficial.

Preferred selection method

Web meeting discussion.

Support and training offered by the company

Support, desk at HQ if required, visits to fire stations, working from fire stations if required.

Financial assistance offered by the company

£500 stipend

Any other comments

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If there are any questions about the 2023 programme, please contact Richard Arnold at richard.arnold@ucl.ac.uk