

DfT Longer Semi-Trailer (LST) Trial: Trial Evaluation Data Guide

A document for the Department for Transport
September 2014
Issue 3-0



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Summary

The trial and the data gathering requirement

In 2012 DfT launched a trial of High-Volume Semi-Trailers (LSTs), also referred in the industry as Longer Semi-Trailers (LSTs). These units can be up to 15.65m in length, 2.05m longer than the current UK standard of 13.6m.

The trial is designed to monitor the experience of the new trailers in live operations compared to the 13.6m standard units, and also in comparison to the assumptions and forecasts in the DfT LST Impact Assessment in regard to usage, journeys saved (due to the added load space), reductions in carbon emissions, and safety.

In order to inform the evaluation, operators are required to gather data on all LST operations and to submit it periodically to an independent evaluation consultant. This independent body will collate and store the data securely, using it to provide analysis and evaluation support to DfT whilst maintaining the commercial confidentiality of individual company operational information.

Risk Solutions was appointed to the role of independent evaluation consultant for the trial in 2012 and was recently reappointed for 2013-14.

Further details of the DfT impact assessment and consultation, as well as the trial itself can be found on the DfT website at: <https://www.gov.uk/government/policies/providing-effective-regulation-of-freight-transport/supporting-pages/trialling-longer-hgv-semi-trailers>

and also on websites for the Freight Transport Association (FTA) and Road Haulage Association (RHA).

Purpose and content and intended audience for this guide

This document provides all the latest information needed by trial participants to undertake the required data collection. The document replaces all earlier versions¹ of such guidance and may be updated again as required.

The operator's manager or primary contact needs to:

- ensure that their current details are registered with the DfT trial Project Manager.
- read and fully understand the content of this Executive Summary, especially noting the actions and responsibilities in **bold**.
- be familiar with the content of the remainder of the guide.
- **ensure that, if they are not undertaking the data process personally, a trial 'Data contact' is nominated as noted below. Where no Data Contact is nominated, the manager or primary contact will be assumed to fulfil that role.**

The trial 'Data Contact' for every operator needs to:

- ensure their details are registered with Risk Solutions.
- read and fully understand the content of all parts of this guide.
- understand and be able to use the associated excel data gathering tools.
- where appropriate, be able to access data from existing company systems.

Any change in the primary contact or the Data Contact needs to be notified to DfT and Risk Solutions

¹ Earlier versions of the guidance were issued by DfT in September 2013 and April, August and December 2012.

Trial contact information

Department for Transport (Freight Policy Group)

Project Manager: Simon Surtees-Goodall

020 7944 3321 freight@dft.gsi.gov.uk

The Project Sponsor for the trial is Andrew Colski, the head of the Freight Policy Group. All communications should, in the first instance, be directed to the project manager.

Risk Solutions

Paul Brand, Eleanor Baker or Helen Wilkinson

Tel: 01925 413984

email: HVSTTrial@risksol.co.uk or LSTTrial@risksol.co.uk

What data is required?

There are three types of data required:

- **Company Information**
Submitted once only, when the operator enters the trial (when first VSO is granted).
This includes some basic information about the size and nature of business of the operator and a set of summary figures about their non-LST semi-trailer fleet.
- **Qualitative Survey**
Submitted initially when the operator enters the trial and then optionally at later times
This is a set of open questions about the experience of the company, its staff and clients in operating the new trailers. The questions may vary as the trial develops.
- **LST Data**
Submitted every 4 months covering all LST operations in that period
This is the primary trial data and includes
 - An **Aggregated Journey Log** of all LST journeys on the public road network in the period. The log includes details of locations and times, the nature of the journey, load and Mode of Appearance (MOA) types, load weight and two measures of utilisation.
 - A set of **Trailer Reference Information** relating Trailer IDs to their Vehicle Identification Number (VIN), basic design details and numbers of days 'off the road' in the period.
 - An **Incident Log** covering all LST incidents on the public highway and certain types of incident on private property (e.g. in depots, at client sites).

All three sets of data are collected using excel templates provided by Risk Solutions. The manager/primary contact is responsible for ensuring that the latest versions of the templates are in use as they will be updated periodically.

The main body of the guide defines the data requirement in detail and describes the use of the excel templates.

When must data collection start?

Data collection must start from the first day the operator takes the LST on the public road network. **This includes driver training and route/site testing.**

When and how must data be submitted?

Every four months, completed excel files are to be sent **to Risk Solutions (not to DfT).**

At the end of the first period when you operate, it is a requirement that you send the **company information file (CIF) and qualitative survey file (QSF) to Risk Solutions**. At the end of this period you should also send Risk Solutions the completed Excel **data submission file (DSF)**. Thereafter, a completed DSF must be sent to Risk Solutions every four months. Qualitative Survey Files (QSFs) may be requested or submitted periodically.

Draft DSFs are always due by Friday of 2nd full week after the period end.

Risk Solutions will check the files and respond with comments or issues which the operator needs to resolve by the end of the month following the period end.

The schedule for each year 'n' is currently:

Collection Period	Code	Submission Date: End of 2 nd week of	RS Comments Resolved By:
Jan – Apr	201n-P1	May	End of May
May – Aug	201n-P2	September	End of September
Sep – Dec	201n-P3	January	End of January

The exact submission dates for the forthcoming submission will be given in period emails from Risk Solutions and also shown in the footer of all emails from the trial email account.

It is vital that operators develop processes for data gathering and collation that can be completed inside the current one month submission window, *including* any responses to questions or errors noted by Risk Solutions.

Note that the schedule requires data to be submitted within 2 weeks of the end of each collection period to allow 2 weeks for corrections and questions. The aim is to have data finalised and ready for analysis for DfT, 1 month after the period end.

DfT would like to emphasise that:

1. Operators are expected to refine their processes for data collection and checking so that after 1 or 2 submissions, minimal support is required from Risk Solutions.
2. Where the staff collating the data change, the operator is expected to arrange for a suitable handover process so that Risk Solutions do not have to coach new teams to manage the process.

How is the data to be generated?

DfT have clearly stated their intention that the trial be accessible to operators of all sizes.

Excel was therefore selected as the basic tool for data collection as being the most widely accessible format, rather than more advanced tools requiring higher levels of IT resource. The Excel templates have therefore been designed such that they can be completed manually using only basic excel skills and using any version back to Excel 2000.

Operators with only a few LSTs are generally using this manual approach.

Managers should assure themselves that only up to date versions of the Excel Templates are in use. The latest versions of all the files will always be available from the DfT Website at <https://www.gov.uk/government/publications/longer-semi-trailers-trial-data-guidance-and-documentation>.

Where operators have larger numbers of LSTs in operation, manually completing the journey log becomes proportionally more challenging.

Medium sized operators have found it best to integrate the data logging process into the daily or weekly tasks in their planning office so that the data is generated 'as they go along' rather than leaving it to the end of the collection period.

Larger operators (and an increasing number of medium sized companies) with existing logistics management systems or 'telematics' are generally able to download some or all of the journey log data into excel and copy it into the template, completing the remaining data fields manually.

Some operators have had special download reports developed for their systems which generate some, or almost all, of the journey log data in exactly the format required for direct insertion into the template.

Risk Solutions are now actively engaging with some of the providers of software/ telematics to make them aware of the data requirement, so that they can support any of their clients participating in the trial using a single approach to data download. **Hence, where the company has existing logistics management software or telematics systems in place, managers are strongly advised to investigate the possibility of using those systems to generate some or all of the journey log data automatically.**

What technical support is available?

The Risk Solutions team is available to support operators of all sizes in setting up their data collection processes, whether it is giving advice on completing the excel template manually for a single trailer, or liaising directly with the operator's IT or telematics specialists on large scale data download formats. Risk Solutions can provide this support by email or on the phone at any time.

Risk Solutions will perform a number of basic checks on all data files as they are received and will respond to the operator with questions or issues that need resolving. Operators are expected to refine their processes for data collection and checking so that after 1 or 2 submissions, minimal support is required from Risk Solutions and few if any comments or issues are raised.

The support given to individual operators is confidential to Risk Solutions, but where substantial support² appears to be required beyond the first few submissions, OR where 2 consecutive submissions are late (including resolving comments) DfT will be informed and they will then contact the operator to discuss the issues.

What happens if an LST is involved in an incident?

The details of what types of incident must be recorded in the incident log are given in Section 5 of this Trial Evaluation Data Guide.

Given the high profile nature of the trial, it is essential that the Department knows as quickly as possible of any incident involving any injuries, clear risk of injury (a near miss) or serious damage to property. Such events must be notified to DfT immediately by email giving basic details of the event and any injuries or damage to property. DfT will then determine whether further details are required and will liaise with the operator directly.

Where an incident took place wholly on private property to which the public do not have access, only incidents involving injury or a serious risk of injury need to be notified to DfT immediately.

² DfT / Risk Solutions have not yet set the measurement indicator for this, but have agreed that it will take account of both the support time given and the number of LSTs being operated to take account of the likely need for greater support when large datasets are involved. Operators will be made aware of the support measure being used once it has been tested during the September 2014 submission.

DfT will ensure Risk Solutions are made aware of such notifications, but operators may also wish to copy the emails to Risk Solutions directly.

What other information is contained in this document?

Apart from guidance on how to complete the three data templates and then how to check them prior to submission, this document also gives some tips for a smooth implementation of the data process based on the experience of participants during the earlier periods of the trial.

The document also contains notes on the protection of the commercially sensitive data and the main rationale for DfT requesting that each data item be included.

What will happen to the data?

This data is essential for the trial and will give us information about how the longer semi-trailers are being used in practice. This will be analysed to see whether the expected benefits of the trial are achieved, in terms of fewer journeys to deliver the same volume of goods at lower cost and with lower emissions. This information will be used to inform any future decisions about the trial and the possible long-term use of longer semi-trailers.

DfT will publish an annual report from Risk Solutions and intermediate data as appropriate.

Table 1: Document Change Log

Ver	Date	Key Changes	Editor	Checked
1-0 – 2-2	April 2012- Dec 2012	Current guide content contained in several smaller documents – some issued by Risk Solutions, others by DfT	Various	Various
2-3	April 2013	First fully 'combined' guide	P Brand	E Baker
2-3b	September 2013	No major changes to process Minor changes to clarifying submission schedule, minor adjustment to incident categories for reporting to DfT	P Brand	E Baker
3-0	September 2014	Updated text to match changes and features in v3-0 templates including new 100% band for utilisation and new checking features. Minor edits to wording on incident reporting and other guidance.	P Brand	H Wilkinson

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1 INTRODUCTION

- 1.1 This document provides all the latest information needed by trial participants to undertake the required data collection. The document replaces all earlier versions³ of such guidance.

Key notes for New Participants

- 1.2 New users will need to read the Executive Summary and most of the guide. This is best done with copies of the Excel Templates through which data is gathered, also in view. The three files are described in Section 2 of the guide.
- 1.3 If you do not yet have a copy of the Company Information File (CIF) (sent to all users when their first Vehicle Special Order (VSO) is granted), please contact Risk Solutions.
- 1.4 **The next section is 'Existing Participants' is not relevant to you, please go to Section 2.**

Key notes for Existing Participants

- 1.5 Participants in earlier trial periods, based on the earlier versions of the guide should note the points which follow as they may modify your data collection process.
- 1.6 The changes are important as they each affect an element of the trial results. They have been agreed between DfT and Risk Solutions following examination of the 2012-2013 trial data. Operators will need to review their process to ensure each of these updates is addressed, where it is relevant to them.
- 1.7 **If you have any questions about moving up to the new template version, do please contact Risk Solutions.**

A	Move to utilisation percentages	<p>The utilisation 'bands' were adopted at the start of the trial as it was not clear whether all operators would be able to provide values of Deck% and Volume% utilisation expressed as actual percentages. However, in analysis of the trial results, using the bands forces us to make quite conservative assumptions. For example, all data in the existing '91-100%' band has to be treated as, on average, only 95% full. If some or all of the loads are in fact 100% full, the resulting benefits are being understated by half, limiting the apparent benefit of running the LSTs. Many operators have already moved to using % values, either based on their quantity data (where the MOA permits it) or on other estimating processes such as knowledge of the client load patterns.</p> <p>DfT / Risk Solutions would like to encourage all operators to review their process for estimating Deck% and Volume% data and wherever possible to move to expressing the values as actual % values, even if these are estimated rounded values.</p>
B	Change to top utilisation 'Band'	<p>We acknowledge that some operators may need to continue using the bands to express their utilisation data. This applies to many very small operators and also where the loading or MOA is irregular. In order to still reduce the conservatism in the top band (=91-100%, from which</p>

³ Earlier versions of the guidance were issued by DfT in September 2013 and in April, August and December 2012. Users of the earlier versions will recognise that whilst this document does contain new information, it is largely the same material edited down from several documents into a single document.

the most vital trial results are derived) we are splitting into two bands. From September 2014 the top bands will be:

95=91-99% NEW FROM SEPT 2014
100=FULL NEW FROM SEPT 2014

The new templates will use the new bands. Data expressed in the old 91-100% band will need to be converted to one or other of the new bands.

Risk Solutions will provide further information to operators on how to convert existing data to the new bands and also on actions they plan to carry out to convert past data, where this is appropriate.

C	Leg Type for empty legs	<p>We have noted an inconsistency in the way operators are expressing the field 'Leg Type' when an LST is not loaded. This is affecting the analysis of the trial data.</p> <p>Some operators always select one of the three 'empty' leg types (1,2 or 8) whereas others continue to express the type based on the nature of the journey (e.g. 4) DC to DC)). We acknowledge that the preferred approach was ambiguous in earlier versions of the guidance.</p> <p>From September 2014, we are making it explicit that where a trailer is not loaded at all, then one of the three 'empty' leg types should be used, with one exception (see below).</p> <p>We understand that for a few operators who generate these leg types automatically from their IT systems, this change may take time to implement. In the meantime, data will need to be amended in the excel file.</p>
D	Use of Leg Type 9) Other when empty	<p>There is one exception to the rule above. Where a trailer is being pulled for testing, training, demonstration, movement for repair/service/MOT, the trailer should be empty, but Leg Type 9) Other should be used. A simple note of the purpose (testing, etc.) should be made in the optional 'CLIENT' field of the DSF.</p> <p>There are very few of these movements and so we decided they did not warrant the creation of a new special Leg Type.</p>
E	MOA for Empties/Waste	<p>As above, there has been some variation in practice here. We have been advising operators during checking that:</p> <p>Where the Leg Type = 1) Empties/Waste Packing the MOA should also be 1) Empties Waste Packing rather than, for example, 'Pallets' or 'Cages' because on such a run there are no goods present.</p>
F	Skeletal Trailers	<p>We have our first skeletal trailers operational on the trial, carrying ISO containers. In consultation with the first user of these designs we have modified the list of body Designs offers in the DSF Trailer Ref Data sheet. We have also agreed a set of special rules for recording the Leg Type, Goods Type and MOA when running these trailers.</p> <p>Full details are given in Appendix D (Table 3) of the new User Guide v3-0 being released for September 2014.</p>
G	Optional Fields	<p>Day of the week is now optional. Multi-drop, if left blank, will now be treated as a statement that there were no intermediate drop points.</p>

2 DATA FRAMEWORK

- 2.1 DfT's rationale for requesting each item of data, which may be of interest to staff who were not involved at the time of trial launch, is given in Appendix A of this guide.
- 2.2 There are three types of data to be collected, each of which has an Excel template file.

Company Information File (CIF)

- 2.3 This is only submitted once, unless major details of the company change during the trial.
- 2.4 An Excel Company Information File (CIF) will be sent to the operator when they enter the trial - when we are notified that their first VSO has been granted.
- 2.5 The CIF asks for basic information about the size and nature of business of the operator and a set of summary figures about their non-LST semi-trailer fleet. The questions in the CIF are summarised in Appendix A.
- 2.6 The CIF covers a range of areas of information and can therefore take some time to complete if information has to be sought from different parts of a large company.
- 2.7 The CIF needs to be completed and returned to Risk Solutions by the end of the data collection and submission cycle in which the operator joins the trial.
- 2.8 If the VSO is only for a short term loan trailer (e.g. for few weeks testing) then the operator may defer completion of the CIF until an application is made for long term operation of LSTs.

Qualitative Survey File (QSF)

- 2.9 This is submitted for every data period - multiple copies can be submitted if companies want to reflect the qualitative experience at different depots.
- 2.10 An Excel Qualitative Survey File (QSF) will be sent to the operator when they enter the trial - when we are notified that their first VSO has been granted.
- 2.11 The QSF is a short set of open questions about the experience of the company, its staff and clients in operating the new trailers. The questions may vary as the trial develops.
- 2.12 The questions in the current QSF are summarised in Appendix C.

LST Data Submission File (DSF)

The Data Submission File

- 2.13 Submitted every 4 months covering all LST operations in that period. This is the primary trial data and includes three main worksheets:
 1. A **Journey Log** of all LST journeys on the public road network in the period. The log includes details of locations and times, the nature of the journey, load and Mode of Appearance (MOA) types, load weight and two measures of utilisation. Data for this sheet may be generated in the Journey Log Tool excel template (see paragraph 5.14).
 2. A set of **Trailer Reference Information** relating Trailer IDs to their VIN, basic design details and numbers of days 'off the road' in the period.
 3. An **Incident Log** covering all LST incidents on the public highway and certain types of incident on private property (e.g. in depots, at client sites).
- 2.14 Further guidance for staff collating the DSF data is given in Section 5 of this guide. Appendix D then gives a technical description of the fields of the journey log data fields which will be of interest to excel specialists, IT staff or Logistics Management/Telematics software providers who need to create data formats or downloads to feed the journey log directly.

3 DATA COLLECTION TIMETABLE

When to start collecting data

- 3.1 All participants must put in place a process to collect journey data from the first day they operate LSTs on the road. This includes testing, trial running, driver training runs (which can be marked with a job code in the journey log as 'training' or 'route testing').
- 3.2 Whilst these journeys are not relevant to the analysis of trailer loading, they are still a part of the trial and are of interest as they show the levels of testing and training that is taking place. They are also vital in case an incident occurs during these operations.

How often to submit data

- 3.3 Every four months, completed excel files are to be sent **to Risk Solutions (not to DfT)**.
- 3.4 At the end of the first period within which you operate, you must send the **company information file (CIF) and qualitative survey file (QSF) to Risk Solutions**. At the end of this period you should also send Risk Solutions the completed Excel **data submission file (DSF)**. Thereafter, a completed DSF must be sent to Risk Solutions every four months. Qualitative Survey Files (QSFs) may be requested or submitted periodically.
- 3.5 **Draft DSFs are always due by Friday of 2nd full week after the period end.**
- 3.6 Risk Solutions will check the files and respond with comments or issues that the operator needs to resolve by the end of the month following the period end.

Table 2: Data Submission Schedule

Collection Period	Code	Submission Date: End of 2 nd week of	RS Comments Resolved By:
Jan – Apr	201n-P1	May	End of May
May – Aug	201n-P2	September	End of September
Sep – Dec	201n-P3	January	End of January

- 3.7 It is vital that operators develop processes for data gathering and collation that can be completed inside the current one month submission window, *including* any responses to questions or errors noted by Risk Solutions.
- 3.8 **Ideally operators should aim to have data submitted within two weeks of the end of each collection period.**

Waiver Dates

- 3.9 Generally an operator must make their first submission at the end of the first period after they begin to operate one or more LSTs on the road (including training and testing). However, where the first 'on road' data is in the last month of a reporting period the operator may claim a waiver for that data submission cycle, submitting that last month or part month of data in the files for the subsequent reporting period. This 'waiver date' was introduced to avoid operators having to set up and prove their data gathering systems just to submit very small amounts of data.
- 3.10 **Example:** *If Operator X started running his new trailers for testing and training on 17 April 2013, he would not submit data files for 2013-P1, in May 2013. He would include that data in files for 2013-P2, submitted in September 2013.*

4 DATA FILE VERSIONS

Why file versions are important

- 4.1 It is important that users ensure they are using a current version of the excel template files for all their data submissions, as minor changes are being made to the formats as the trial progresses. The changes are mainly in order to prevent data entry or processing problems seen in submissions from earlier periods.
- 4.2 The latest versions of all the files will always be available from the DfT Website at <https://www.gov.uk/government/publications/longer-semi-trailers-trial-data-guidance-and-documentation>
- 4.3 **From the start of the collection for 2014-P2 (May-Sep) all operators must plan to start using the newest editions of the files i.e. v3-0 for two reasons:**
- The utilisation band 91-100% has been split into two separate new bands (>91<100 and 100% Full) – the old bands will no longer work with the new system.
 - To make use of the newest self-checking features we have made available.

If you have limited IT skills/resources available

- 4.4 **If you have limited IT skills available, do not be concerned – just use the latest file versions that are sent out from the start of a new period and if you require any assistance (for example to move your trailer reference data to the new file) please contact us at Risk Solutions.**

If you need to understand the issues or communicate with IT staff

- 4.5 We appreciate that some users who have automatic download reports may need a few weeks to get the minor adjustments made to the new version.
- 4.6 **As ever – if you have any questions in this area, please contact Risk Solutions yourself or have the relevant IT/technical staff do so.**
- 4.7 **During the transition, we have made sure that DSF v3-0 will work with data created to match the earlier v2-x files.**
- 4.8 **Any users still holding version 1-0 or 1-1 files need to discard them and start using the more recent versions as v1 data does not have two key fields and has to be converted manually to be imported into the central database.**

File naming preferences

- 4.9 It is helpful, but not essential, if data files can be submitted with names that make it easy to identify the data period, file version and operators. The file name convention we will be using in Risk Solutions for the trial is shown below. Of course some operators will also need to comply with file naming conventions required by their company, but if it is possible to incorporate the same elements seen below, it would be most helpful.

Which File	CIF, QSF, DSF
Which template version was used	v2-3, v3-0
Which Year and Period	2013-P1, 2013-P2
Which operator Trial ID and name	ID87-BobsTrucks

4.10 Hence examples might be:

- LST-CIF-v3-0a-2013-P2-ID87-BobsTrucks.xls
- LST-QSF-v3-0-2013-P2-ID87-BobsTrucks.xls
- LST-DSF-v3-1-2013-P2-ID87-BobsTrucks-DraftA.xls (this example including a ref to the draft).

4.11 If your company has more than one division registered separately on the trial (i.e. with different DfT Trial ID numbers) then please select a short company name that makes it clear which division the data is from. Use the Trial ID if that is the easiest way of achieving this – e.g:

- LST-DSF-v3-1-2013-P2-ID87-BobsTrucks-Pallets.xls
- LST-DSF-v3-1-2013-P2-ID88-BobsTrucks-Retail.xls.

Excel template caveat

The Excel template files are provided in good faith after a considerable amount of checking and trialling during the first survey year. If any participant finds any errors in the files we will seek to fix them and re-issue as soon as possible. Similarly, while a reasonable effort will be made to support participants in the survey and use of the logs, neither DfT nor Risk Solutions are able to provide a general IT support / Excel advice service.

The sheets are locked using Excel's 'Protect' tool to avoid inadvertent editing of the structure or formulae. There is no password set, so users may 'Unprotect' them if they need to.

5 COMPLETING THE DATA SUBMISSION FILE (DSF)

- 5.1 The LST Data Submission File or 'DSF' is an excel workbook compatible with all versions of Excel back to Excel 2000 (For Windows. It should also work fine in recent versions of Excel for Mac and Linux).
- 5.2 We recommend you read this section of the guide with the most up to date DSF in front of you.

Completing the DSF Journey Log

- 5.3 Most of the data collection effort relates to the journey log in which all movements of LSTs on the public road network must be recorded throughout the trial. Given the length of the trial, it is important that operators develop an efficient process for generating the data that is appropriate to the number of LSTs involved, as well as the size and complexity of their operation. Clearly what is appropriate for a small operator with a single LST will not be the same as what is sensible for a major fleet manager with 90 LSTs working out of five depots, even though the actual data items for a single journey leg are the same in both cases.
- 5.4 This section introduces the data that is to be collected about individual journeys, after which the guide describes different ways of generating that data. All of the approaches described are already in use by participants who joined the trial during 2012.

The journey leg data

- 5.5 The journey leg data needs to be gathered in the DSF worksheet called:

'1) Aggregated Journey Log'

- 5.6 Please note that each entry (a row in excel or 'record') is for a leg from A-to-B, not for a journey which might be a round trip, or include two or three stops. The exception to this is A-to-B multi-stop/drop journeys with five or more intermediate loading/unloading points. How this latter type of journey should be recorded is explained below.
- 5.7 For each leg of the LST journey, the log needs to record the following information.

Table 3: DSF Data Field List

COMPANY, JOB AND TRAILER INFORMATION	LEG INFORMATION	CARGO AND LOADING
Company (& Depot)	Origin Location	Type of Goods
Data Code Stamp	Depart Time	MOA
Job Code (Optional)	Arrival Time	MOA Quantity
Client(Optional)	Dest'n Location	Goods Weight
Date	Journey Leg Type	Volume Utilised
Day of the Week	Distance (mile)	Deck Space Utilised
Company Trailer ID	Distance (km)	Load Limited By Wt
	Incidents	Multi-Drop (see notes)

- 5.8 Appendix A explains DfT's reasons for asking for each data item to be collected.
- 5.9 Appendix D Table 1 gives the meaning of each of these data items and also provides technical information which may be required if the data is to be downloaded from existing IT systems.
- 5.10 The items shown in blue are optional. The items shown in **bold** must be completed by selecting from a list of options (See Appendix D Table 2) which are shown as drop-downs when using the journey log tool.

- 5.11 Multi-Drop** Where the intermediate stops are made to load/unload part of the cargo, the multi-stop field should show the number of stop points if it is five or more. If there are less than five stops, then each part of the journey needs to be recorded as a separate leg (the same as in the DfT Continuous Survey of Road Transport), each of which is marked Multi-drop=1. If Multi-drop is left blank it will be assumed that there were no intermediate drops (=1) rather than being flagged up as an error to be corrected.

Generating the journey log data manually

- 5.12** The journey leg data can be entered into the DSF worksheet manually and some operators are doing so. This is usually in cases where they use very limited numbers of the options for fields such as 'Leg Type' or 'Goods Type'. Where this is the case they just enter the short code number (i.e. '4' for '4') 'DC to DC' for leg type, in fact are able to just copy these field entries down for every row as they are always the same.
- 5.13** However, many smaller/medium operators with only a few LSTs, no download options and a variety of business types, could find it onerous to fill in the DSF form directly and would probably find many errors would arise simple from typing errors. There is therefore a further excel template which can be used to create blocks of journey data manually for later inclusion in the DSF.

The Journey Log Tool (LST Journey Log v3-0.xls or higher)

- 5.14** This excel file is a single worksheet with the same column format as the DSF Aggregated Journey Log. Data collected in this sheet can therefore be easily cut and pasted into the DSF log directly.

Figure 1 Journey Log Tool (Extract)

DC = National or Reg Dist Centre
(or similar facility such as warehouse)

Select

1) EMPTY FROM DEPOT TO JOB
2) EMPTY BETWEEN JOBS
3) SUPPLIER TO DIST CENTRE
4) DC TO DC
5) To/From RETAIL SITE
6) To/From INDUSTRIAL SITE
7) PALLETISED TRUCKING
8) EMPTY BACK TO DEPOT
9) OTHER LEG TYPE

Distance Miles
Use this column if your data is in miles ONLY if your data is in miles will be converted to km per mile factor 1.61

Distance Km
Use this column if your data is in km. If you entered miles in column it will be converted to km per mile factor 1.61

Incidents on Leg
Blank/YES or/Ref

Lists of valid options for special data items

Commodity / Goods Type
Select
0) NO CARGO
1) EMPTY / WASTE PACKING
2) FMCG (MIXED PRODUCTS)
3) FMCG (SINGLE PRODUCT)
4) RAW MATERIAL/SUPPLIES
5) INDUSTRIAL PRODUCTS
6) BIOMASS / FUEL
7) MAIL / PARCELS
8) OTHER - RETAIL
9) OTHER - NON-RETAIL
10) PALLETS - MIXED/UNKNOWN

Mode of Appearance
Select
0) NONE
1) EMPTY / WASTE PACKING
2) STD PALLETS
3) STD ROLLER CAGES
4) OTHER PALLETS / CAGES
5) PRE-SLUNG GOODS
6) LIVESTOCK
7) LOOSE / BULK
8) MIXED M.O.A.
9) INTERMODAL UNIT / ISO

Goods Wt
Select
NOTE: This is actual or estimated weight of the GOODS ONLY - not the GVW (Values > 35T will be rejected)

VOLUME %
Select
0=EMPTY
25=BELOW 25%
50=26-50%
75=51-75%
90=76-90%
95=91-99%
100=FULL

DECK SPACE %
Select
0=EMPTY
25=BELOW 25%
50=26-50%
75=51-75%
90=76-90%
95=91-99%
100=FULL

UTILISATION: FROM SEPT 2014: PLEASE GIVE ACTUAL ESTIMATES OF % IN PREFERENCE TO BANDS. IF USING BANDS - NOTE NEW 100% TOP CATEGORY

Leg Type	Distance (Miles)	Distance (km)	Incidents on Leg	Type of Goods	Mode of appearance (how goods are packaged into units)	City of Units (Loose/ Bulk/Traps = 1)	Weight of GOODS ONLY (zero if empty)	Estimated % of volume (space, inc height) of trailer	Estimated % of Deck Space Used	Load limited by weight?	Multi-Drop Count
Use drop down or enter option NUMBER (1,2,3 etc)	Miles	km	Blank/YES or/Ref	Use list or enter option number	Use list or enter option number	OPTIONAL	kg	FROM SEPT 14 % VALUES (mandatory)	FROM SEPT 14 % VALUES (mandatory)	Yes/No	If >= 5
From list	(Optional)			From list	From list			% OR FROM LIST OF BANDS	% OR FROM LIST OF BANDS	Yes/No	number
4) DC TO DC	75	121		2) FMCG (MIXED PRODUCTS)	3) STD ROLLER CAGES	48	15,000	75%	95%	No	6
Select				Select	Select			Select	Select	Select	1
Select				Select	Select			Select	Select	Select	
Select				Select	Select			Select	Select	Select	

- 5.15** For those entering journey data manually, using the journey log template has a number of advantages. Where a data field has a list of options to choose from:
- the list of choices is shown above the column (see partial image of the log below)
 - in the entry cell, the user can either
 - make a choice from a drop-down list, or
 - type in the short code number ('2' for '2') Standard Pallets' in Mode of Appearance).
- 5.16** Note that the sheet will ONLY accept valid entries for these fields.
- 5.17** Distances can be entered:
- Directly in km OR
 - In Miles (if that is how you record your data normally) and it will be converted for you.

- 5.18 In the main leg detail columns (not shown in the following extract below):
- Entering the date automatically generates the day of the week
 - Dates and times are automatically formatted properly
 - The company name (and if needed, depot) are entered at the top of the sheet and appear automatically on every row
 - The Date Stamp field is filled in automatically (on most systems).
- 5.19 The file has space for up to 300 leg records. Multiple copies can be saved and pasted into the DSF later one by one to form a single aggregated log. Hence individual logs could be distributed to different depots or drivers for completion.
- 5.20 The sheet is preformatted so it can, if necessary, be printed on A3 paper and filled in by hand and then transcribed to Excel later – a few smaller operators are using this approach. Some others have created their own sheet to collect a subset of the fields (those not available in the office) from the driver along with their other job sheets.

Generating data from existing IT systems

- 5.21 It was always anticipated that the number of LSTs taken up by an operator would most likely reflect the general scale of their wider operation. Consequently, it was also assumed that as the size of the operator increased, so too would the sophistication of their existing data systems and hence the likelihood that some portion of the journey data would be available as a download.
- 5.22 During the first year of the trial we have seen a range of approaches emerging, including:
- Companies with a small group of LSTs deciding to have the log completed in the planning / operations office where all or most of the data needed is available in real time to the office team. The log is completed manually from the data on existing systems screens throughout the day or at the end of each shift. Whilst no download is involved, the data is being generated by existing IT systems.
 - Companies with logistics management / job management / routing or telematics systems from which the main journey details are downloaded as a report (usually directly in excel) and then pasted into the DSF. The missing fields are then completed by the planning / office team as above.
 - Companies with telematics mounted on the trailers or with data links to the tractor telematics and integrated with their logistics/warehousing systems are developing processes which can generate almost all of the log data without further manual input.
 - Companies where further fields are derived from the basic leg details of location, time etc.,
 - a set of simple rules has been added to the download report which generates the leg type, and goods information. An example is deriving the Leg Type based on existing data about the locations which the system states as journey start and end point.
 - the Volume % and Deck Space % fill estimates are automated, based on information from a loading or warehousing system, such as a number of standard pallets loaded.
 - the goods weight can be estimated from either warehousing/load data (common in pallet/parcel operations) or weigh bridge data (entered by hand / in cab terminals).
- 5.23 In the cases described to us by operators, the usual pattern is that excel export is available as a standard option on their existing software and the operator then either:
- Reorganises the data in excel and pastes it into the DSF or
 - Builds a new report which exports the data already in the DSF column order and formatting – or has their software provider do this for them.
- 5.24 As noted earlier, where a software provider can create a tailored report to fit the trial data format, this can often be used (with a little tailoring) for other participants who have the same software / telematics systems.

Completing the DSF Trailer Reference Data

- 5.25 Most of the data required in the DSF Trailer Reference Data sheet only needs to be entered once. It can then be copied and pasted into each period DSF. One column of data is completed for each trailer.

Figure 2: DSF Trailer References Data Sheet (Extract)

LSTs Trial: DATA SUMMARY FILE : TRAILER INFORMATION											
v3-0 Company		Submission Date	TO COPY T-REF DATA IN FROM AN OLD DSF - YOU MUST				NEW 'OWNERSHIP' CELL		Trailers 'Operated under consortium'		
0.0		16/06/2014	1) UNPROTECT THIS SHEET (try right click on sheet tab and UNPROTECT) 2) Copy the data from old sheet and do PASTE VALUES here 3) Enter data for new period in Section 2 as appropriate 4) and select values for new OWNERSHIP field in row 26				DIT have a policy that allows consortia of trial participants to operate each others LSTs as they do with 13.6m units. Policy available from DIT on request		Where trailers are operated by one participant, but are sometimes operated by other participants in a consortium (as per DIT Policy Notes) the trailer must appear here but the following notes apply: 1) The LST can only be operated by other trial participants 2) When operating trailers owned by another participant, the TID, VIN and Registered Keeper rows must be filled in 3) Ownership (row 26) must be set to 'Operated under consortium' 4) All other rows can be left blank as they will appear in the sheet of the owning participant		
Note: Not collecting all detail here - exact dimensions, axle details etc in Model Report. Note: for a batch of identical trailers you can enter one column of data and then copy the cells across for an identical batch of trailers. Remember to then put the correct ID and VIN in each column		Information:	Units / Notes	Number noted: 0							
1) Trailer Identification and VSO details		Log Count by ID	0	1	2	3	4	5	6	7	8
COMPANY TRAILER ID											
VIN		17 characters									
Manufacturer											
VCA Model Report Ref		from VSO									
REGISTERED KEEPER											
Registered Keeper Address											
Post Code											
2) Changes in availability since last submission											
Change in Status (New to Trial, Sold, Scrapped)		List with Drop	Select	Select	Select	Select	Select	Select	Select	Select	Select
Actual / Estimated days Off Road / Unavailable IN PERIOD											
Planned / regular maintenance		number of days									
Damaged / not usable		number of days									
Other reasons		number of days									
**** NEW FIELD May 2014 **** Ownership		List with Drop	Select	Select	Select	Select	Select	Select	Select	Select	Select

- 5.26 Users of earlier version will note the addition of the 'Ownership' field and notes on completing the table when operating a trailer registered to another participant, as part of a consortium.

- 5.27 The data required is listed below. Only Section 2 needs to be updated at each new period.

1) Trailer Identification and VSO details

- COMPANY TRAILER ID, VIN No, Manufacturer, VCA Model Report, Keeper details

2) Changes in availability since last submission

- Change in Status (New to Trial, Sold, Scrapped)
- Actual / Estimated days Off Road / Unavailable due to maintenance, damage etc
- Ownership (Owned, Leased etc.)

3) Trailer Design Summary

- Basic Body Construction, Deck Layout,
- Features such as Refrigerated, Top / Roof Loading, Tail Lift, Self-Loading (Fork-lift, Crane, etc), Walking Floor / Similar
- Additional safety features (sensors, cameras, reversing aids)

4) Trailer Capacity and Dimensions

- Carrying capacity (kg) (Plated), Volume capacity (cubic metres) and Trailer width [m], length [m], height (Measured according to the EU directive procedure rather than coupled height) [m]

5) Axle Configuration and detail

- Overall Steering Arrangement – i.e. number of steerable axles and the type of mechanism, Axles / Suspension Structure and Tyres
- Axle details (Axle 1 nearest Kingpin) for AXLE 1, 2, 3
 - Design Max Load [kg]
 - Lift / Retractable (Yes/No)

- 5.28 Please note that unless the trailer is altered - perhaps by having new equipment added to it – only Section 2 needs to be updated with new information for each data period.

DSF Incident Log

- 5.29 DfT have defined some important requirements for reporting any road collision incidents which may occur involving one of the LSTs.

Direct reporting To DfT

- 5.30 The first is that serious incidents need to be reported to them as soon as possible.

DfT Comment on Incident Reporting

The incident log “.....is the sheet we hope you will have least to do with. Given the high profile nature of the trial, however, it is essential that the Department knows as quickly as possible of any incident involving any injuries, a clear risk of injury (a near miss) or serious damage to property. This is because it may be something we need to inform Ministers about, act upon urgently to ensure safety, or on which we may need to provide responses to enquiries from MPs or the media. If you are unsure please contact us on the contact details shown below.

We know there has been a certain amount of concern that if any of these vehicles is involved in a serious accident, the trial could be immediately halted. While we cannot second-guess what Ministers may decide in any given set of circumstances, it is important to remember that the intention of the trial is to compare the performance of these longer semi-trailers against that of the existing fleet. We realise that accidents will sometimes occur. Among other things, the trial needs to look for evidence of whether or not the longer semi-trailers are more susceptible to accidents than the existing fleet. We will only know this if the trial uncovers a trend that can be linked to the extra length.”

Please report serious incidents directly to the DfT Project Manager

Simon Surtees-Goodall on 020 7944 3321 freight@dft.gsi.gov.uk

Recording in the Incident Log

- 5.31 The second requirement is that a wider range of incidents needs to be recorded in the incident log sheet in the DSF, to provide a wider picture of the number and types of incidents that may occur.
- 5.32 **The log must be completed for all incidents occurring on the public highway OR on private property with public access (e.g. retail parks, motorway service areas etc. involving:**
- **Injury or serious risk of injury (near miss),**
 - **Damage (to the operator’s vehicle or to property) or,**
 - **Obstruction to traffic (e.g. LST problems negotiating junction)**
- NB – with the exception of the last bullet, these are the same requirements for reporting an incident to DfT at the time.*
- 5.33 **The log must also be completed for all incidents occurring on private property (with no public access) which result in injury or representing a serious risk of injury (near miss).**
- 5.34 The log asks for the details of the incident under six headings:
- A) Incident References, linking the event back to the journey log and any internal operator incident recording system.
 - B) Incident Time and Location.
 - C) Injuries / Damage based on a slightly modified version of the injury levels used in the national STATS19 incident recording by the police. The STATS19 injury level descriptions are included in a sheet (3b) in the DSF for reference.

- D) Incident and Progression Coding, using a subset of the STATS19 codes which the user can select using drop-down lists.
- F) Additional Description, where a basic narrative can be entered. This should describe the incident in sufficient detail to support the operator's judgement of whether the fact that the trailer involved was an LST was a factor in the accident occurring or its outcome in terms of injury or damage. The final column asks the operator to articulate that judgement by choosing from a list of options.

5.35 Please note that while the STATS19 codes have been used as a framework, the entry in this log in no way replaces official STATS19 report which may be generated should the police attend a road collision event.

6 DSF SELF-CHECKING FEATURES

- 6.1 **Each operator is responsible for checking their data before submitting it to Risk Solutions.**
- 6.2 **Once operators have been in the trial for 1 or 2 submission periods, they are expected to be able to submit data with very few errors and hence to require very limited support from Risk Solutions**
- 6.3 However, when the files arrive we will carry out some simple tests. Where an issue is identified, the file is returned back to the user with some explanation of the problem and a suggestion of what action needs to be taken.
- 6.4 Given the quantity of data that some operators will generate in the DSF, mainly in the journey log, some self-checking sheets have been built into the more recent versions of the file. These perform some of the same simple checks carried out by Risk Solutions.
- 6.5 Many of the checks will only work if data is entered:
- using **Paste > (Special) Values** in Excel, AND
 - is continuous – i.e. there are no empty rows in the middle of the data (Aggregated Journey Logs sheet and Incident Log sheet) or empty columns (the Trailer Ref Data sheet).
- 6.6 The results of checks are shown in a number of ways:
- **Totals Checking**
The Data Checking sheet records the number of some common errors and omissions detected in the sheets.
 - **Colour Highlighting**
Within each of the data entry sheets errors in inputs are highlighted using colour wherever possible.
 - **Error and Omission counts**
Any non-zero values are shown in Rows 3 and 4 of the Aggregated Journey Logs sheet.
- 6.7 Hints for using these are given in the sections which follow.

Please note that:

- 6.8 **We cannot identify and highlight every possible error. We cannot highlight in colour every error we can detect in the error counts, and we cannot count every error we can highlight with colour. So please:**
- **Enter data carefully in the logs as far as possible to ensure that it is correct in the first place**
 - **Check both the error counts and the colour highlighting**
 - **Carry out spot checks from time to time on data quality for example that:**
 - **distances entered are consistent with the start and end locations and times**
 - **locations are being entered with consistent names**
 - **correct Leg Type, MOA and Goods types are being used for your operations**
 - **Volume Utilisation is not greater than the Deck Utilisation.**
- 6.9 **Please also note that some of the checking features may not work fully in very old versions of Excel (filtering by colour was not enabled pre-excel 2007).**

The Data Check Sheet

- 6.10 The first section of this sheet checks for a very common error – i.e. obvious distance, weight or multi-drop values that exceed a set of default thresholds which are:

		Default Check Threshold
1	Max DISTANCE (km) on a single leg	900
2	Max GOODS WEIGHT (kg) on a leg	30,000
3	Maximum Multi-Drop	10

- 6.11 Values that exceed these values will be identified as an error.
- 6.12 The operator may change these thresholds used in the data checking process from defaults that more closely suit their business. The default thresholds are:

Section A) Checking overview

- 6.13 Section A provides a summary of the checks carried out in the rest of the Data Check sheet. It provides a rapid overview of any issues detected.

Section B) Checks on the Aggregated Data Logs sheet

- 6.14 The first check carried out on this sheet is to make sure data is entered in consecutive rows. If data gaps are detected a warning is flagged in cell F12 as some of the checks will not work properly if this is the case. **Please close up the gaps.**
- 6.15 The rest of this section of the data check sheet records the number of common errors and omissions detected in the various columns of the sheet and where we can provide some information about how these might have arisen. Common errors include entering data in an incorrect format (e.g. a date as a text field, or an incorrect format for a Leg Type (e.g. “1) EMPTY” instead of “1) EMPTY FROM DEPOT TO JOB”).

Section C) Checks on the Trailer Ref Data sheet

- 6.16 For this sheet we have highlighted errors on three inputs:
1. That a VIN number has been entered for each trailer ref number entered.
 2. Whether days off road have been entered if there has been an incident – if there are none it flags up a warning as this could be an omission.
 3. That trailer ownership has been entered for each trailer ref number entered.

Section D) checks on the Incident Log sheet

- 6.17 One check is carried out on this sheet – whether an assessment of whether the incident was LST related or not (Column X) has been filled in.

Colour highlighting of gaps and errors

Aggregated Journey Log sheet

Finding problem rows in a big log

- 6.18 At the head of each data column (in Rows 3 and 4) the error and omission counts provided in the Data Check sheet are also recorded.
- 6.19 To help identify where the errors and omissions are in a big log we have provided three features:
- Colour coding of cells containing an identifiable error or omission

- Colour coding in Column A to identify rows where we have identified inconsistent data entries along the row, and
- Excel filters to help track down the rows with the errors.

Colour coding of cells

6.20 The following colour coding is used:

Empty	Invalid / inconsistent	Unusual / unexpected value
-------	------------------------	----------------------------

- 6.21 The pale orange cells may not be incorrect, but are flagged up as a warning.
- 6.22 As you correct the data the colour coding should disappear and the error and omission counts should reduce.
- 6.23 Colour highlighting in Column A indicates if entries in each row are consistent - so for example if an empty Leg Type is entered are all the other non-optional entries consistent with the trailer being empty (Goods type = 0) NO CARGO, Goods Wt = 0 etc.). If an issue is detected then the corresponding cell in Column A will light up Orange.

Excel column filters

- 6.24 The DSF has Excel 'filters' set up on the Aggregated Journey Log sheet to make it easier to track down rows which need editing, when the log is large.
- 6.25 Many users will be familiar with how these work already. If not, this explanation may be helpful, enabling the user to check and correct data without further support from Risk Solutions.

Using Column Filters To Check and Correct Data

At the top of each column in the log, where the name of the data field appears, the cell has a drop-down arrow (▼). By clicking the arrow you will see all the values in the column in alphabetical or numeric order and the option to select 'All' or individual values. Hence if you are trying to find a distance which is too large, you use the distance column filter, 'unselect' the 'all' box and scroll down until you find the value(s) you want and click the selection box on one or more of them. The sheet will then hide all other rows except the ones you ticked.

Some more recent versions of Excel also allow you to filter on colour. Selecting this option will allow you to filter on all orange cells or all blue cells.

Colour highlighting in the Trailer Ref Data sheet

- 6.26 Colour coding in the Trailer Ref Data sheet shows where data should be entered (blue) once a Trailer ID has been entered.
- 6.27 The sheet will refuse to accept VIN numbers that are not 17 characters long.
- 6.28 The sheet will highlight unusual values for fields such as the trailer dimensions and axle loads.

Colour highlighting in the Incident Log sheet

- 6.29 Colour coding in the Incident Log sheet shows where data should be entered once a Trailer ID has been entered. It also detects errors in entering dates (incorrect format or unusual dates) and requires that the narrative field be greater than 20 characters.
- 6.30 **If you are struggling to find or correct errors highlighted in the sheet or think there are errors that are not being highlighted, please contact Risk Solutions for support.**
- 6.31 If you need to liaise with your IT specialists external providers to arrange for download of data from existing systems, **Appendix D provides a list of the exact formats required for the main data fields used in the system.**

7 COMMERCIAL DATA SECURITY AND CONFIDENTIALITY

- 7.1 DfT and Risk Solutions are aware that submission of the detailed journey leg data may not have been explicitly or clearly stated as part of the commitment entered into by participants when they applied to join the survey, although this was always the intention.
- 7.2 This is data which may be regarded as commercially sensitive.
- 7.3 **DfT and Risk Solutions have agreed the following:**
1. That the Excel data files will NOT be passed to DfT for any purpose. The files will:
 - a. be held on Risk Solutions' secure systems (or those of any future successor contractor filling this role) – i.e. secure servers or encrypted hard disks.
 - b. only be available to those evaluation project team members with a need for access
 - c. be used solely for analysis in connection with this trial
 - d. not be used to make direct comparisons between competitors
 - e. be analysed in a way that does not permit easy identification of individual participants
 - f. be securely deleted from Risk Solutions' systems at the end of the trial (or on change of contractor)
 2. That participants are requested to include the detailed journey leg data in their (Excel) Data Submission File, in order that,
 - a. the full data from the trial population of LSTs is gathered in a single place for possible later, more detailed analysis, should this prove necessary in the course of the trial;
 - b. simple questions arising from the online survey may be quickly analysed from the data detail without reference back to the participants;
 - c. errors in data arising from formatting or other issues can be quickly resolved, again, without recourse to the participants
- 7.4 **Any operator with concerns in this area should contact Risk Solutions as early as possible.**

8 SPECIAL CASES

The instructions in this section are only relevant to some operators.

Data from Multiple Depots

- 8.1 A few participants have asked whether they can gather or even submit their data at depot level, rather than at company level.
- 8.2 Although we experimented with this option in the early part of the trial, what such participants have actually done so far is produce their raw Excel Data files at Depot Level, but then amalgamate them into a single file for submission. So whilst they are gathering data in the depots, the submission is done as a company.
- 8.3 Experience with gathering of data in depots has been positive for some operators, but it has also shown that it requires careful planning, as each time a new depot takes on some LSTs, a new person needs to learn how to use the DSF. There are also issues associated with new staff (drivers and depot teams) learning from the experience of their colleagues, rather than 'starting from scratch'.
- 8.4 **If you wish to discuss depot level data gathering and some of the experience gained so far in the trial, please contact Risk Solutions.**

Data records for Skeletal LSTs

- 8.5 Skeletal trailers present a special case for the data collection, as there is a legal ruling that the ISO container or Swap body which is attached to the skeleton is deemed to be part of the **cargo** rather than part of the **Trailer**. We therefore need to define the treatment of these loads in a manner which both reflects that ruling and fits in with the analysis formats for the trial.
- 8.6 We have agreed the following principles following consultation with the first operator to bring skeletal trailers on to the trial:
 - 1. The Intermodal Unit (ISO or swap body) is treated as part of the LOAD not the trailer. As a result, a trailer with an empty ISO container on board is loaded, not empty and the leg type must reflect this.
 - 2. Where an empty unit is loaded OR where the unit itself contains empties or waste packing, the Goods Type will be shown as '1) Empties Waste Packing' as the unit is akin to an empty pallet or cage. However, the MOA will be noted as the special option 9) Intermodal Unit / ISO.
- 8.7 A complete table illustrating all the logical cases for a skeletal trailer has been given in Appendix D, Table 3 of this user guide.

9 TIPS FOR SMOOTH IMPLEMENTATION

- 9.1 Based on the experience gained in the first two data collection periods we strongly recommend the following tips, especially when you first enter the trial.

Start early:

- 9.2 Plan your data collection process as soon as you apply for a VSO – do NOT leave it until the end of the data collection period.

9.3 **Consider whether existing data can be downloaded**

There have been several cases of staff assuming they have to manually transcribe quite large amounts of data from screens and print-outs into the DSF. Generally, if you can see data on a screen in an existing company system, there is a very good chance it can be downloaded to excel. So:

- Talk to your IT people (if you have them) or the software provider.
- Look in the software's manual or help system for 'Export'.
- Contact Risk Solutions as other participants may be using the same system.

9.4 **New Entrants – start the CIF as soon as you get it**

- When first entering the trial you will receive the excel Company Information File (CIF). You may need some time to gather the information needed to complete the company and historical data questions.

Management Issues

9.5 **Consider nominating a Data Contact with skills that match the task**

- As the primary contact for the trial you do NOT have to deal with the data yourself. Many companies have nominated a DATA CONTACT to liaise directly with Risk Solutions
- Ideally, give the data collation task to a team member with some experience of using Excel for basic data entry and cutting/pasting. Please do not leave this to the period end.

9.6 **Pass on the guidance documents**

- Check that all the guidance is handed over if the staff change and make sure whoever is handling the data is provided with it, and reads it.

Excel / Data Issues

9.7 **Test your data process using dummy data or during test/trial operations**

- Test your process early in the data period using dummy or early live data and if necessary consult Risk Solutions for assistance.

9.8 **Gather data continually or in small batches**

- Gather / download data weekly or monthly – not all at the end of the data period. This applies whether you are completing all the data manually, or just seeking to fill in missing fields in a download from another IT system.

9.9 **Sanity check your data before submitting**

- Use the self-checking features of the DSF to look for gaps or 'odd' values before submitting. More than 50% of problems which resulted in data being returned to the user were simple failures to 'sanity check' the data **before** sending it in.
- Overall, the general experience from the first year was that once operators had 'cracked it' the process was manageable by both large and small operators alike.

9.10 **If in any doubt – please contact Risk Solutions and ask, even if the question appears simple, rather than allowing a small problem to build up into a big one!**

APPENDIX A: DFT RATIONALE FOR DATA REQUIREMENT

The notes in this appendix have been edited from a DfT document outlining their rationale for the extent of the data being requested. The 'We' in these notes refers to DfT.

Company Information File (CIF)

We ask for three years' information as this helps to ensure that it reflects your true situation (in current circumstances in particular, one year's information might not be properly representative).

We need the information on size of business and total number of employees because of the requirement on Government to monitor the impact of measures on small or medium enterprises; this is something that we had to cover in the Impact Assessment and that we need to verify through the trial.

The information on the nature of your operation allows us to assess whether the longer semi-trailers are likely to be used by a broad spread of operators.

The section about your preparation for LST Trial / operations gives us background information on the way in which participants are using their vehicles that will help us to assess whether or not the original research was correct in assuming that the introduction of these vehicles would not be likely to have implications for infrastructure.

The questions about your Non-LST fleet provides an initial benchmark information that we need in order to ensure that the comparisons with the standard articulated fleet established through the trial are robust. Again, we are asking for three years' data to ensure we have a representative picture. Although this is not the only comparison being considered, it is a starting point.

Qualitative Survey File (QSF)

The QSF provides an opportunity for operators to convey the experience of operating the LSTs from the perspective of a range of staff and the business as a whole.

LST Data Submission File (DSF)

Aggregated Journey Log

Job Code: there is no obligation to enter anything here but it could be useful for you in cross-checking if there are any queries.

Client Code: providing this will allow the Department to get a clear picture of the type of operations where the longer semi-trailers are being used in practice. The Impact Assessment that was derived from the initial research and the consultation in 2011 contained a number of assumptions on the type of operations – gathering this information will help us to review the original Impact Assessment and adjust it if necessary. In later years we may look at refining this to a set of generic client types from which you select.

Date/Time: self-explanatory – time is of specific interest to see the balance of peak/off-peak or day/night usage of the new trailers

Company trailer ID: this means we can cross-reference all the information to the specific trailer; if there were to be a number of incidents, this would give us an indication of whether there was a specific design that was particularly vulnerable. Specifically, it links to the trailer VIN, via the information given in the Trailer Reference Information sheet.

Journey leg details / Distance: this also helps build up a picture of the manner in which these vehicles are operating, and provides data for the assessment of the increased efficiency that they allow.

Incidents on leg: this column just takes a straight 'yes' or 'no'; the actual reporting of incidents is done on the Incident Log (see below).

Type of Goods: this is also to help us verify the assumptions in the research and the Impact Assessment on the type of loads for which these vehicles are most likely to produce the anticipated benefits.

Mode of appearance / Quantity of Units / Weight of goods carried / Estimated % of volume & % deck space) / Load limited by weight?: this information will help us to quantify the benefits by giving us data from which we can assess the increase in tonnes per lorry mile. This in turn will give us a more representative view of the carbon reduction than a straight comparison of fuel use would do.

(The trouble with just reporting on fuel consumption, without including load data, is that there could be any number of factors that affect this one way or another. For a start, the additional length of the trailer is likely to affect the fuel consumption so a straight comparison between a 13.6m trailer and a 15.65m trailer could be misleading.)

Multi-Drop: multi-drop journeys may treat runs with 5 or more drops as one data record (leg). For 1,2,3 or 4 drops, each part of the journey should be recorded as a separate Leg. This is the same principle as the DfT Continuous Heavy Goods Survey which will be familiar to most operators.

Trailer Reference Information

Relates the usage of a trailer to its VIN and some basic design information.

Some of the design data would be included in the VSO data, but much of it is not, such as the body construction, presence of features such as refrigeration. (An important example, since chilled trailers necessarily have perhaps 30% empty volume above the goods to allow for circulation and this needs to be considered in volume utilisation data.

Incident Log

Trailer ID / Job code / Company incident ref / Date incident recorded and reported: these columns will enable us to keep track of the circumstances of any incidents and cross-relate them to the vehicle.

Date / Time / Location (by road) / Location (by description): these will enable us to know what the driving environment was (for instance, trunk road at a time when there would be a steady traffic flow, built-up area in quiet hours)

Road User Category of Injured Person / Level of Injury/ Damage to vehicle or load / Damage to property: these will provide information on the degree of severity and the nature of any injuries.

Please note that we are using STATS19 injury levels: these are explained on the next tab in the workbook. **Please also note** the more detailed lists of category of injured person. For the most part these should be reasonably self-explanatory, but just to clarify:

- The driver of the HGV counts as 'HGV occupant';
- 'Pedestrian' means a member of the general public who is not in/on another vehicle;
- 'Company staff' and 'Client staff' are staff members not in the vehicle at the time of the incident.
- **It is vital that we have information on all injuries, so you will see that you are asked to fill in a separate row for each person injured in any incident.**

Vehicle location / Incident location etc: these build up the picture of what happened and the extent to which the trailer length may or may not have been a factor

Additional details: these allow you to enter a certain amount of additional relevant information. They will also allow you to enter 'near misses'; these could cover anything like having difficulty negotiating a roundabout, finding that the tail-swing narrowly misses parked vehicles, street furniture or buildings when turning corners, etc. The important thing is to record enough detail to describe the event and to include any details related to the trailer being an LST rather than a standard 13.6m.

We know there has been a certain amount of concern that if any of these vehicles is involved in a serious accident, the trial could be halted. While we cannot second-guess what Ministers may decide in any given set of circumstances, it is important to remember that the intention of the trial is to compare the performance of these longer semi-trailers against that of the existing fleet. We know that accidents will sometimes occur. Among other things, the trial needs to look for evidence of whether or not the longer semi-trailers are more susceptible to accidents than the existing fleet. We will only know this if the trial uncovers a trend that can be linked to the extra length.

APPENDIX B: CIF (COMPANY INFORMATION FILE) QUESTIONS (V3-0)

An outline of the CIF questions in use for every new entrant in to the trial.

(1) COMPANY AND LST TRIAL INFORMATION

- 1-1 Organisation Information
- 1-2 Respondent Details
- 1-3 Business Scale at end of last 3 years. Can be a best estimate if exact values are not easily available. Can be end of calendar or financial year depending on your data.
- 1-4 What is the PRIMARY or LARGEST part of your operation?
- 1-5 What, if any, systems do you use to generate and manage key data?
(As with all data, this will remain confidential. The purpose in asking is to allow us to see what the primary sources of data are in the trial) and to enable us to ensure we can keep all the main software systems providers informed about the data element of the trial so that they can support trial participants effectively).
Select products/suppliers from a list given.
- 1-6 What special limits have you put on your LST operations (Tick as many as apply)
- 1-7 Actual or Estimated Date of LSTs entering service

(2) NON-LST SEMI-TRAILER FLEET INFORMATION

- 2-1 Fleet Size and Body Design Mix
 - 2-1-1 Non-LST Trailer Fleet Size
 - 2-1-2 Non-LST Trailer Fleet Basic Design
- 2-2 Fleet Utilisation Measures
 - 2-2-1 Non-LST Trailer Fleet Utilisation
 - 2-2-2 Trailer Availability. Number of days across all the operational fleet - estimated back in 2-1-1 as shown
 - 2-2-3 Proportion of Journeys/Legs where the available DECK SPACE filled is (list of bands):
 - 2-2-4 Proportion of Journeys/Legs where the available VOLUME filled is (list of bands)
 - 2-2-5 Proportion of Journeys/Legs where load was limited by weight:
 - 2-2-6 Proportion of trips by JOURNEY TYPE ‘
 - 2-2-6a If 'Other' is >10% please indicate journey type please describe usage
- 2-3 Goods Transported

Estimate of the actual average for your non-LST semi-trailer fleet for 2012 for

 - 2-3-1 Nature of Goods Transported
 - 2-3-1 MODE OF APPEARANCE of Goods Transported
- 2-4 Incidents Involving Non-LST Semi-Trailers

We are aware that different companies will hold differing levels of detail on incidents involving their regular fleet. In this section, apply common sense in terms of the materiality of the incidents and where appropriate, give estimates

 - 2-4-1 Incidents Involving Injury
 - 2-4-2 Known Injuries
 - 2-4-3 Accidents where Police Involved
 - 2-4-4 Accidents by location
 - 2-4-5 Damage to Other Vehicles & Property
 - 2-4-6 Damage to Your Vehicle (Ignore minor damage if in depot etc)

APPENDIX C: QSF (QUALITATIVE SURVEY FILE) QUESTIONS (V3-0)

This Excel sheet differs from the others in three ways.

1. It can be filled in more than once in a single period – for example if the operator would like to submit a copy from each depot to reflect their differing experiences.
2. Not all the questions need to be answered every time it is completed.
3. The questions may change from time to time as the trial develops.

The questions shown here are those used in 2012-P2 and 2013-P1.

Revised or replacement questions may be issued in later periods.

3-1 Did you encounter any issues or problems with incorporating the LSTs into your operation?

3-1a If you answered 'Yes' to Q1, in which areas did you encounter problems (tick all that apply)?

During loading / During driving / Negotiating client depots / Other

3-1b: If you answered 'Yes' to Q1, please describe the issues or problems you encountered:

3-2 Did you undertake any special training of staff in advance of operating the LSTs?

3-2a If you answered 'Yes' to Q2, which staff underwent training (tick all that apply)?

Loading/ depot staff / Drivers / Planners/ Managers / Other (please specify)

3-2b If you answered 'Yes' to Q2, please briefly describe the training that was given to staff:

3-3 Did you undertake any other special preparation in advance of operating the LSTs? (e.g. staff training, physical changes to loading areas or depots, changes to planning or operations processes etc.)

3-3a If you answered 'Yes' to Q3, please describe the preparations you made

3-4 Have you had any feedback (positive or negative) from any of the staff and/or other groups listed here on the introduction of the LSTs? (tick all that apply)

Loading/ depot staff / Drivers / Planners / Managers / Clients / General Public / Local Authorities or Politicians / Lobby Groups / Other (please specify)

3-4a If you answered 'Yes' to Q4, please briefly summarise the feedback (positive or negative) you received.

3-4b How would you summarise the feedback you have received (Across all groups together)?

3-5 Have you chosen to operate the LSTs in a more restrictive way than your other semi-trailers?

3-5a If you answered 'Yes' to Q5 please describe any restrictions you imposed and the reasons for them:

3-6 Overall, what is your view of the performance of the LSTs for your business?

APPENDIX D: DSF JOURNEY DATA FIELDS (V3-X)

Note for operators entering data manually into the Journey Log Tool

If you are collecting your data in the Journey Log Tool and then pasting it into the DSF, you do not need to read this section. You just need to ensure you start using v3-1 (or higher) of both the Journey Log Tool and the DSF, for all data starting from 1 September 2014.

The tables overleaf give a more detailed description of each data field in the journey log.

This information will be of interest in any case where the operator is creating their own data gathering or collating tools, or more likely, in setting up a standard export or report from an existing IT system. In order to ensure the data created using these methods is 100% compatible with data from other operators, the format of key data fields is important.

The key examples are

- date and time fields need to be in Excel Date/Time format
- text fields need to be **Text** or **General**
- numeric fields need to be **Number** or **General**
- percentage fields need to be **Percent format** (which can be forced by simply including a % symbol after any number)

The second important area is where responses to the trial bespoke fields are being generated or derived from existing IT systems and the actual entry is being created automatically. These include Leg Type, Goods Type, MOA and Estimate Volume % or Deck Space % Utilised. Here it is vital that the text (or 'string') generated matches the standard values exactly.

Existing users from periods prior to 2014-P2 need to note that the utilisation options have been changed and hence any embedded copies of the text lines in automated reports needs to be updated. We apologise for this change, but judged that we needed to make this adjustment before the numbers of trial participants increased further.

Special category lists for LST trial in Trailer Reference and Incident Log Sheets

Other specialised category lists are used in the DSF Trailer Reference Data and Incident Log sheets. However, they are not detailed here as it is expected that operators will simply fill in these data directly into a copy of the worksheet. If participants wish to generate this data by another means and hence require the detailed formats/options used, please contact Risk Solutions for information on how to unlock the file.

Table 4: Journey Log Data Fields and Validation/Formatting Requirement

Col	Title	Description (<i>Purpose</i>)	Validation / Format
A	Row	Log row number (only required in log file)	
B	Company (& Depot)	Hidden and automatically generated in Log file – revealed in Data Submission File (DSF) <i>Depot only if DfT notified of depot submission</i>	Text with '>>' delimiter i.e. Company>>Depot
C	Data Code Stamp	Hidden and automatically generated in Log file – revealed in DSF A coded reference to the originating log file it is actually the exact Excel DATE/Time when the file was last saved.	Excel 'General' – numeric If not from LOG File leave blank or insert own ref.
D	Job Code (Optional)	Company unique reference for the leg/journey. One code may apply to several consecutive journey legs.	Text Company's own format.
E	Client(Optional)	Name or reference to client for whom the goods are being carried	Text
F	Date	Date of journey START	Date dd-mmm-yy
G	Day of Week (Optional)	Three letter format (Mon, Tue, Wed etc.) of journey START <i>Provides a cross-check on dates in data</i>	Text – 3 Char ddd format (Mon, Tue etc.)
H	Company Trailer ID	Company normal trailer ID (T146, ET4076 etc.). <i>Allows easy reference to trailer - VIN/TIN matching in DSF sheet</i>	Text – as used by company
JOURNEY INFORMATION FOR EVERY POINT TO POINT LEG.			
I	Origin Location	Town (and Postcode) of Origin	None – free text
J	Depart	Time of departure from origin 24hr Format hh:mm	Time format (no date part)
K	Arrive	Time of arrival at destination 24hr Format hh:mm	Time format (no date part)
L	Destination	Town (and postcode) of Destination	None – free text
M	Journey Leg Type	Special set of journey descriptions, based on the likely market uses for LSTs from the trial feasibility and impact report	Text from Valid Options as in Table 2
N	Distance (mile) (Optional)	Distance travelled in miles if that is your raw data format. If you enter data here it will be converted to km in column O.	Number – Zero Decimal Places (can be integer)
O	Distance (km)	Distance travelled in km. If you enter data here it will override (permanently) the conversion from miles of data in column N. This is the only distance unit used in summary and analysis	Number – Zero Decimal Places (can be integer)
P	Incidents	If any reportable incident occurs during the journey then record YES or company assigned incident references <i>Allows later matching of incident data to journey information</i>	Text Default / Empty is blank (not zero)
CARGO AND LOADING INFORMATION			
Q	Type of Goods	Not the standard DfT commodity list – a special shortened set of options for this trial	Text from Valid Options as in Table 2
R	MOA	Mode of Appearance - the way the goods are present and loaded	
S	MOA Quantity (Optional)	Number of units of the Mode (Pallets etc). For Bulk goods or Livestock use 1. For Empties, use 0 (Automated in LOG File)	Automatic – Zero or Positive whole number.
T	Goods Weight	The weight of goods loaded in kg. (i.e. If from weighbridge data, need to remove weight of tractor unit and trailer)	Kg Numeric – no decimals
U	(Estimated) Volume Utilised	From data, central estimate (based on knowledge of load and trailer, or driver best estimate).	Revised Sept 2014 Preferred: % value 2 nd Option: List of bands (overleaf)
V	(Estimate) Deck Space Utilised	FROM SEPTEMBER 2014-P2 (template v3-0 onwards) the preferred format is an actual % value – even if it is estimated. Where this cannot be generated, the use of the 'bands' is acceptable, but operators must update their data entry to use the new top bands replacing the old 91-100% band Volume% cannot be greater than Deck %!	
W	Load Limited By Wt	Was the trailer less than 100% loaded due to 44 tonne limit or trailer load limit	Text - 'Yes' or 'No'
X	Multi-Stop	Multi-drop/pickup journeys with 5 or more stops, can be recorded on a single row. Simply enter number of drop/pickup stops here.	Integer. Default=1 - Any value >=5 then valid.

Table 5: Special Trial 'Valid Options' Lists

EXISTING USERS: THE TEXT FOR SOME OF THESE OPTIONS CHANGED AT v3-0 AND YOU MAY NEED TO MAKE ADJUSTMENTS TO YOUR SYSTEM IF YOU HAVE NOT ALREADY DONE SO – PLEASE SEE NOTE BELOW

Some of the data to be collected for the trial is likely to be part of the normal information gathered by companies and is similar to that required by DfT when operators contribute to the Continuous HGV Surveys. However, this trial differs from regular data gathering because it needs to

- a. Gather data about TRAILERS, rather than whole vehicles or tractor units
- b. Gather data in order to verify specific claims / forecasts that have been made in regard to the costs and benefits of permitting LSTs in the UK

Four of the data fields requested therefore have bespoke lists of response options and validation in the log will ensure only these are used.

Note to IT/Data Analysts Creating Data from Corporate Systems
For these fields the LOG file requires the full option text. However, the DATA SUBMISSION FILE will accept just the number of the option to generate the results in the Summary worksheet. (I.e. Journey Type '4) DC to DC' can be coded simply as '4', 90=76-90%' as '90'). Hence when generating this bespoke data from existing systems or to insert into such data, only the numeric code from the option need be created if this is easier.

JOURNEY LEG TYPE (Column M)	TYPE OF GOODS (Column Q)
1) EMPTY FROM DEPOT TO JOB 2) EMPTY BETWEEN JOBS 3) SUPPLIER TO DIST CENTRE 4) DC TO DC 5) To/from RETAIL SITE 6) To/from INDUSTRIAL SITE 7) PALLETISED TRUNKING 8) EMPTY BACK TO DEPOT 9) OTHER LEG TYPE NOTE From Sept 2014 if the trailer is n loaded then an empty leg type (1,2 or 8) should be used	0) NO CARGO 1) EMPTIES / WASTE PACKING 2) FMCG (MIXED PRODUCTS) 3) FMCG (SINGLE PRODUCT) 4) RAW MATERIAL/SUPPLIES 5) INDUSTRIAL PRODUCTS 6) BIOMASS / FUEL 7) MAIL / PARCELS 8) OTHER - RETAIL 9) OTHER - NON-RETAIL 10) PALLETS - MIXED/UNKNOWN
MODE OF APPEARANCE (Column R)	VOLUME % (Column U) & DECK % (Column V)
0) NONE 1) EMPTIES / WASTE PACKING 2) STD PALLETS 3) STD ROLLER CAGES 4) OTHER PALLETS / CAGES 5) PRE-SLUNG GOODS 6) LIVESTOCK 7) LOOSE / BULK 8) MIXED M.O.A 9) INTERMODAL UNIT / ISO	Preferred Approach: (from Sept 2014) Actual % values or estimates Excel % format required. If inserting data manually simply add the % symbol. If creating data from existing IT systems ensure % format is generated) Alternative: Select appropriate band from list 0=EMPTY 25=BELOW 25% 50=26-50% 75=51-75% 90=76-90% 95=91-99% NEW FROM SEPT 2014 100=FULL NEW FROM SEPT 2014 NB: Note from Sept 2014 the old 91-100% band has been replaced with the new top bands as shown. This is to reduce conservatism in the treatment of the top band in trial analysis

Table 6: Special Arrangements for Skeletal Trailers and Loads

See section 7.2 for discussion of data recording for skeletal trailers.

	Scenario	Client (Optional)	Leg Type	Type of Goods	MOA	Quantity	Goods Wt	Est Deck / Vol % Utilised	Logic
A	Loaded container for reward	Optional	Any Loaded Leg Type	Any except 0) No Cargo	9) INTERMODAL UNIT / ISO	1	Goods + ISO	1-100%	All fields treated as per other LSTs, but noting that: a) ISO weight is included as part of the goods weight b) MOA used to flag up that it is an ISO (i.e. not the MOA of what is inside the container) c) Utilisation refers to utilisation INSIDE the ISO as this is what is of interest on the trial
B	Empty (bare skeletal)	Optional	Any empty Leg Type (1,2,8)	0) NO CARGO	0) NONE	0	Zero	0%	All fields treated as per other empty LSTs
C	ISO containing empties and waste packaging	Optional	Any Loaded Leg Type	1) EMPTIES / WASTE PACKING	9) INTERMODAL UNIT / ISO	1	Empties + ISO	1-100%	Both (C) and (D) are as per other LSTs carrying empties / waste packing with one exception. Normally the MOA would be 1) Empties / Waste Packing - but here we would use MOA to flag that it is in an ISO.
D	Empty back from job (empty ISO)	Optional	4) DC TO DC	1) EMPTIES / WASTE PACKING	9) INTERMODAL UNIT / ISO	1	ISO	0%	We need the flag to ensure we treat these as a special case. It is also logical in that you cannot bring the 50ft ISO back on a 13.6m trailer
E	Testing or demo	Descriptor such as: Testing, Training, Service, Demo etc	9) OTHER LEG TYPE	As case (B) or (D)	As case (B) or (D)	As case (B) or (D)	As case (B) or (D)	0%	9) Other Leg Type is already our advice for all testing / demo running - operators then put and indication of the use in the optional CLIENT field (Testing, Service, Demo, Training etc) Rest of field as per (B) or (D) indicating whether the ISO was present