Dataset Description for: Investigation and Development of a MASH Test Level 6 Barrier - Phase I Dataset

Dataset available at through the UNL Data Repository at: https://doi.org/10.13014/K2J38QQ6

(This dataset supports report **Investigation and Development of a Test Level 6 Barrier, Phase I,** TRP-03-404-18. <u>http://matc.unl.edu/research/research_project.php?researchID=545</u>)

This U.S. Department of Transportation-funded dataset is preserved by the Mid-America Transportation Center in the University of Nebraska-Lincoln Data Repository (<u>https://dataregistry.unl.edu/</u>), and is available at <u>https://doi.org/10.13014/K2J38QQ6</u>

The related final report **Investigation and Development of a Test Level 6 Barrier, Phase I**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/39014

Dataset metadata from the University of Nebraska-Lincoln Data Repository record: Title: Investigation and Development of a MASH Test Level 6 Barrier - Phase I Dataset Creators: Faller, Ronald Organization: Mid-America Transportation Center Sponsor: USDOT Description: Measured tanker vehicle dimensions, system drawings of concepts, calculations of concepts, and final computer simulation models. Data Type: Dataset Data Format: FTL, XLS, XLSX, XLSM, PDF, DEF, R2E, JPEG Keywords: Computer simulation models, calculations, system drawings, tanker vehicle dimensions Identifier: 69A3551747107 Date: 2018-11-05 Date Submitted: 2018-11-01 Orc ID: Ronald Faller https://orcid.org/0000-0001-7660-1572; Jennifer Schmidt https://orcid.org/0000-0003-0909-0850; Joshua Steelman https://orcid.org/0000-0002-8664-7520 DOI Number: 10.13014/K2J38QQ6 Collection: MATC Research Archive

Recommended citation:

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Dataset description and software dependencies, provided by NTL staff:

This dataset contains 6 .zip file collections described below.

Barrier Height Study.zip:

This collection contains 17 subfolders, titled with numerals, ranging from 50 to 90. These titles represent the height, in inches, of the simulated rigidwall barriers. Each subfolder contains 35 files, of which, 34 have a file extension of .k. These file types are generated by LS-DYNA software, available form Livermore Software Technology Corporation (LSTC) << http://www.lstc.com/ >>, and are known as LS-DYNA Keyword files. LS-DYNA is available through subscription or through a 30-day, no fee, demonstration license. These files may also be opened, read, and edited using a basic text editor. The final file is a lsdyna-slurm-tt file, which can be opened with a basic text editor as well.

Concept 3 Simulation.zip:

This collection contains 37 files, of which, 36 have a file extension of .k. These file types are generated by LS-DYNA software, available form Livermore Software Technology Corporation (LSTC) << http://www.lstc.com/ >>, and are known as LS-DYNA Keyword files. These files may also be opened, read, and edited using a basic text editor. The final file is a lsdyna-slurm-tt file, which can be opened with a basic text editor as well.

Concepts.zip:

This collection contains 8 subfolders and a Concept Drawings.dwg file. The subfolders are titles "Concept 1" through "Concept 7" and refer to the various barrier designs brainstormed by the research team and discussed in Chapter 5 of the report. The subfolders contain the following file types: Microsoft Excel .xls, .xlsx., and .xlsm files, which can be opened with Excel, and other free available software, such as OpenRefine; .dwg files, which are AutoCAD drawing files, which NTL staff were able to view with Adobe Acrobat, as well; and, .ftl files, which can be opened with a basic text editor (for more on different types of .ftl files, please visit https://www.file-extensions.org/ftl-file-extension).

Instrumented Wall Simulation.zip:

This collection contains 35 files, of which, 34 have a file extension of .k. These file types are generated by LS-DYNA software, available form Livermore Software Technology Corporation (LSTC) << http://www.lstc.com/ >>, and are known as LS-DYNA Keyword files. These files may also be opened, read, and edited using a basic text editor. The final file is a lsdyna-slurm-tt file, which can be opened with a basic text editor as well.

Tanker Vehicle Dimensions.zip:

This collection contains 11 files, relating to the size of trucks and tankers measured for the study. The files types include: Microsoft Excel .xlsx. files, which can be opened with Excel, and other free available software, such as OpenRefine; and, Adobe Acrobat .pdf files, which can be opened with Adobe Acrobat Reader.

TL-6 Roman Wall Capacity.zip:

This collection contains 5 subfolders, and a summary file related to Roman Wall barriers. The file types present in these subfolders include: Microsoft Excel .xls, .xlsx., and .xlsm files, which

can be opened with Excel, and other free available software, such as OpenRefine; Adobe Acrobat .pdf files; .def files, which can be opened with a basic text editor (for more on .def files, please visit https://www.file-extensions.org/def-file-extension); .r23 files, which are binary data files, and can be opened with a basic text editor; .ftl files, which can be opened with a basic text editor (for more on different types of .ftl files, please visit https://www.file-extensions.org/ftl-file-extension); Picture files, without a files extension, which NTL staff were able to open with Adobe Acrobat; and, .jpeg files, which can opened with a basic image viewing program.

National Transportation Library (NTL) Curation Note:

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<u>https://ntl.bts.gov/public-access</u>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at <u>https://doi.org/10.13014/K2J38QQ6</u> on 2019-08-12. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.