Technical Report Documentation Page

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7. Author(s) Beben, M.S., Weed D.B.	8. Performing Organization Report No.
9. Performing Organization Name and Address FAA Civil Aerospace Medical Institute PO Box 25082 Oklahoma City, OK 73125	10. Work Unit No. (TRAIS)
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15. Supplementary Notes

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16. Abstract

This project was an investigation of multiple transport category airplane Type III door dimension changes to evaluate its general impact on safety and egress speed. The goal was to provide rule makers with a generalizable result to address requests to modify airplane exits for the purpose of increasing the allowed number of passengers per door exit rating. Participants exited the door types in both an individual and group setting. There were 160 participants through six different Type III doors, of which three are currently in operation, and three are experimental. The doors that had a smaller step-up and step-down height had the fastest average egress times and the shortest range of egress times. The finding that a smaller step-up/step-down height results in a quicker egress may have implications for the certification of airplanes with Type III exits with smaller step-up/step-down heights than allowed by regulation.

17. Key Word	18. Distribution Statement
Type III Exits, Evacuation, Cabin Safety	Document is available to the public through the National Transportation Library: https://ntl.bts.gov/ntl

19. Security Classification (of this report)	20. Security Classification (of this page)	21. No. of Pages
Unclassified	Unclassified	8

Plan Overview

A Data Management Plan created using MyApp

Title: Emergency Exit Operation and Location

Creator: Melissa Beben

Affiliation: United States Department of Transportation (DOT) (transportation.gov)

Principal Investigator: David Weed

Contributor: Levi Breeding

Funder: United States Department of Transportation (DOT) (transportation.gov)

Template: U.S. Department of Transportation: Data Management Plan (DMP)

Project abstract:

This research project was requested by AIR-600 to help address requests by airframe manufacturers to increase the number of seats allowed on an airframe by the addition of type-III exits (exit ratings). This increase would be justified by making the type-III exit opening larger and closer to the floor of the airplane.

This project is an investigation of multiple transport category airplane Type III door dimension changes to evaluate its general impact on safety and egress speed. The goal is to provide rule makers a generalizable result to address requests to modify airplane exits for the purpose of increasing the allowed number of passengers per door exit rating.

Start date: 10-01-2021

End date: 08-23-2024

Last modified: 01-11-2024

Emergency Exit Operation and Location

Persistent Link

Include the persistent identifier (PID) that is associated with the dataset.

Persistent Link: https://doi.org/10.21949/1504583

Recommended Citation

The recommendeded data citation to be used when citing the dataset.

Recommended Citation:
U.S. Department of Transportation, Bureau of Transportation Statistics. (2003). Omnibus Household Survey (OHS) 2003-02 [datasets]. https://doi.org/10.21949/1504583

Change Log

Document the changes that are made to the DMP, any and all changes should be noted to ensure a more complete documentation.

Change Log:
2021-07-29: Initial DMP written

CONTENTS

Include a table of contents, in order to better organize the DMP.

CONTENTS:

0. Dataset and Contact Information

Please provide the following information:

- **Name of the dataset or project for which data is being collected**
- **Project number, contract number, or other number used to link this DMP**
- **Name of the person submitting this DMP -ORCiD of the person submitting this DMP**
- **Email and phone number of the person submitting this DMP**
- **Name of the organization for which the person submitting this DMP is working for**
- **Email and phone number for the organization**
- **Link to organization or project website**
- **Date the DMP was written**

0. Dataset and Contact Information:

Emergency Exit Operation and Location

Project number TBD

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https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/cami/

07/29/2021

1. Data Description

Name the data, data collection project, or data producing program.

1. Data Description:

Emergency Exit Operation and Location

Describe the purpose of your research.

This project is an investigation of multiple transport category airplane Type III door dimension changes to evaluate its general impact on safety and egress speed. The goal is to provide rule makers a generalizable result to address requests to modify airplane exits for the purpose of increasing the allowed number of passengers per door exit rating.

Describe the data that will be generated in terms of nature and scale (e.g., numerical data, image data, text sequences, video, audio, database, modeling data, source code, etc.).

Describe methods for creating the data (e.g., simulated; observed; experimental; software; physical collections; sensors; satellite; enforcement activities; researcher-generated databases, tables, and/or spreadsheets; instrument generated digital data output such as images and video; etc).

Data collection will be pen and paper for demographic and anthropometric information. Video data will be collected with the assistance of the CAMI iZone team who will record participants egressing through Type III exits at 60 frames per second (fps) in high definition (HD). Additional recording in and around the simulator will be accomplished using the FlexSim built-in video data collection system, consisting of Go-Pro cameras recording 60 fps in HD. Breakdown of the video and all data entry will take place in rooms 108 and 110. Microsoft Office Excel 2016 and IBM SPSS version 23 will be used for all data entry and analyses.

Discuss the period of time data will be collected and frequency of update.

Question not answered.

If using existing data, describe the relationship between the data you are collecting and existing data.

Question not answered.

List potential users of the data.

Question not answered.

Discuss the potential value of the data have over the long-term for not only your institution, but also for the public.

Question not answered.

If you request permission not to make data publicly accessible, explain rationale for lack of public access.

Question not answered.

Indicate the party responsible for managing the data.

Question not answered.

Describe how you will check for adherence to this data management plan.

Question not answered.

2. Standards Employed

List in what format(s) the data will be collected. Indicate if they are open or proprietary.

Question not answered.

If you are using proprietary data formats, discuss your rationale for using those standards and formats.

Question not answered.

Describe how versions of data be signified and/or controlled.

Question not answered.

If the file format(s) you are using is(are) not standard to your field, describe how you will document the alternative you are using.

Question not answered.

List what documentation you will be creating in order to make the data understandable by other researchers.

Question not answered.

Indicate what metadata schema you are using to describe the data. If the metadata schema is not one standard for your field, discuss your rationale for using that scheme.

Question not answered.

Describe how will the metadata be managed and stored.

All paper records created during the course of this study will be kept in a locked file cabinet maintained by the Protection and Survival Laboratory, Cabin Safety Research Team, in the CAMI building. Electronic data collected during this research project will be kept on a password protected, external storage drive, kept in a locked filing cabinet when not in use.

Indicate what tools or software is required to read or view the data.

Question not answered.

Describe your quality control measures.

Question not answered.

3. Access Policies

Describe what data will be publicly shared, how data files will be shared, and how others will access them.

Question not answered.

Indicate whether the data contain private or confidential information. If so:

- **Discuss how will you guard against disclosure of identities and/or confidential business information.**
- **List what processes you will follow to provide informed consent to participants.**
- **State the party responsible for protecting the data.**

Question not answered.

Describe what, if any, privacy, ethical, or confidentiality concerns are raised due to data sharing.

Question not answered.

If applicable, describe how you will deidentify your data before sharing. If not:

- **Identify what restrictions on access and use you will place on the data.**
- **Discuss additional steps, if any you will use to protect privacy and confidentiality.**

Question not answered.

4. Re-Use, Redistribution, and Derivative Products Policies

Name who has the right to manage the data.

4. Re-Use, Redistribution, and Derivative Products Policies:

These data are managed by the Bureau of Transportation Statistics. The data are in the public domain, and may be re-use without restriction. Citation of the data is appreciated. Please use the following recommended citation:

U.S. Department of Transportation, Bureau of Transportation Statistics. (2003). Omnibus Household Survey (OHS) 2003-02 [datasets]. https://doi.org/10.21949/1504583

Indicate who holds the intellectual property rights to the data.

Question not answered.

List any copyrights to the data. If so, indicate who owns them.

Question not answered.

Discuss any rights be transferred to a data archive.

Question not answered.

Describe how your data will be licensed for reuse, redistribution, and derivative products.

Question not answered.

5. Archiving and Preservation Plans

Discuss how you intend to archive your data and where (include URL).

Question not answered.

Indicate the approximate time period between data collection and submission to the archive.

Question not answered.

Identify where data will be stored prior to being sent to an archive.

Question not answered.

Describe how back-up, disaster recovery, off-site data storage, and other redundant storage strategies will be used to ensure the data's security and integrity.

Question not answered.

Describe how data will be protected from accidental or malicious modification or deletion prior to receipt by the archive.

Question not answered.

Discuss your chosen data archive's policies and practices for back-up, disaster recovery, off-site data storage, and other redundant storage strategies to ensure the data's security and integrity for the long-term.

Question not answered.

Indicate how long the chosen archive will retain the data.

Question not answered.

Indicate if the chosen archive employs, or allows for the recording of, persistent identifiers linked to the data.

Question not answered.

Discuss how your chosen data repository meets the criteria outlined on the Guidelines for Evaluating Repositories for Conformance with the DOT Public Access Plan page.

Question not answered.

6. Policies Affecting this Data Management Plan

Include policies that the data management plan was created to meet, such as the DOT public access plan.

6. Policies Affecting this Data Management Plan:
This data management plan was created to meet the requirements enumerated in the U.S. Department of Transportation's "Plan to Increase Public Access to the Results of Federally-Funded Scientific Research" Version 1.1 << https://doi.org/10.21949/1520559 >> and guidelines suggested by the DOT Public Access website << https://doi.org/10.21949/1503647 >>, in effect and current as of Month(Write out) Day(XX), Year(XXXX).
