

README for “Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress, DOT/FAA/AM-21/01 [supporting datasets: videos]”.

Civil Aerospace Medical Institute (CAMI), Federal Aviation Administration (FAA), U.S. Department of Transportation (USDOT)
2023-04-26

LINKS TO DATASET

A. Dataset archive link:

<https://doi.org/10.21949/1528610>

B. Link to related report:

<https://doi.org/10.21949/1524433>

SUMMARY OF DATASET

These 60 video recordings represent the visual recordings of the measurement of the two research objectives of the study “Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress,” DOT/FAA/AM-21/01. The first objective was to determine what percentage of the American population, based on anthropometric measurements, would not be able to sit in transport airplane passenger seats at the currently narrowest and even narrower seat pitch. Second, this study sought to determine the effect of seat pitch and seat width on individual egress time during an aircraft evacuation.

The 12 videos with file names which start with the phrase "ExpSeatingMockupDay..." record participants sitting in or attempting to sit in a seat mock-up that matched the narrowest seat pitch they would experience in the evacuation trials, and to attempt to sit in or to sit in a seat mock-up of a narrower seat pitch than what would be presented in the evacuation trials. (See pages 9 and 10 of the related report for more information.) Each video is about 2 hours long, and shows a single camera view from the perspective of the left wall of an aircraft. The video records participant actions as each participant attempts to sit in the center seat of the third of three rows, and then the center seat of the second of three rows. The recordings are color video, without a soundtrack. Participant faces are blurred to protect individual privacy.

The 48 videos with file names that start with "R01.mp4" and increment to "R48.mp4" are the recordings of the evacuations from CAMI FlexSim. (See pages 11 through 13 of the related report for more information.) Each video is about 45 seconds long, with the frame divided into 4 quarters, showing three views of the evacuation, and a single title slide with the date of the evacuation trial, and the trial number, which matches the file number on the recording. The view in the upper left of the frame is a view overhead and behind the flight attendant supervising the evacuation. The view in the upper right of the frame shows the exterior of the simulator to record how participants exit. The view in the lower right of frame shows the view from the rear of the simulator, as participants evacuate away from the camera to the front of the simulator. The lower left of the frame is the title slide. In the center of the frame is a timer, counting up the total time of the evacuation. The recordings are color video, without a soundtrack. Participant faces are blurred to protect individual privacy.

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A. GENERAL INFORMATION

0. Title of Dataset:

“Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress, DOT/FAA/AM-21/01 [supporting datasets: videos]”

1. Description of Dataset:

These 60 video recordings represent the visual recordings of the measurement of the two research objectives of the study “Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress,” DOT/FAA/AM-21/01. The first objective was to determine what percentage of the American population, based on anthropometric measurements, would not be able to sit in transport airplane passenger seats at the currently narrowest and even narrower seat pitch. Second, this study sought to determine the effect of seat pitch and seat width on individual egress time during an aircraft evacuation.

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2.A. Dataset archive link:

<https://doi.org/10.21949/1528610>

2B. Link to related report:

<https://doi.org/10.21949/1524433>

3. Authorship Information:

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4. Date of data collection and update interval:

20191119 to 20200112; Collected only once, no updates.

5. Geographic location of data collection:

Oklahoma City, OK

6. Information about funding sources that supported the collection of the data:
6973GH-19-C-00102

B. SHARING/ACCESS & POLICIES INFORMATION

0. Recommended citation for the data:

U.S. Department of Transportation, Federal Aviation Administration, Civil Aerospace Medical Institute. 2021. Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress, DOT/FAA/AM-21/01 [supporting datasets: videos]. <https://doi.org/10.21949/1528610>

1. Licenses/restrictions placed on the data:

These data are in the Public Domain.

2. This dataset and its documentation were created and shared 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 April 26, 2023.

C. DATA & RELATED FILE OVERVIEW

1. File List

A. Filename:

README_FAA_AM_21_01_Egress_Videos_20230427_0335.txt

Short description:

The README.txt file that includes human-readable information about the data, variable definitions, contact information, and other contextual information. The file you are reading now.

B. Filename:

README_FAA_AM_21_01_Egress_Videos_20230427_0335.pdf

Short description:

A PDF version of the README.txt file that includes human-readable information about the data, variable definitions, contact information, and other contextual information.

C. Filename:

README_FAA_AM_21_01_Egress_Videos_20230427_0335.json

Short description:

The machine-readable .json metadata file based on DCAT-US metadata schema v1.1, <https://resources.data.gov/resources/dcat-us/>

D. Filename:

[Enter filename here; File E should always be a TXT version of the data management plan (DMP) related to the data: REQUIRED].txt

Short description:

The human-readable data management plan associated with this dataset.

E. Filename:

[Enter filename here; File F should always be a PDF version of the data management plan (DMP) related to the data: REQUIRED].pdf

Short description:

A pdf version of the human-readable data management plan associated with this dataset.

F. Filenames; List of Video File Names and Files Sizes:

Short description: The list of the 60 video files that comprise this total dataset, and their file sizes.

F.1: 12 Video Files that record participants sitting in or attempting to sit in a seat mock-up. These video files are too large to compress into a single ZIP file, so are presented individually.

File Name	Size in KB	Run Time HH:MM:SS
ExpSeatingMockupDay-01(david.weed@faa.gov).mp4	1,541,462	01:44:52
ExpSeatingMockupDay-02(david.weed@faa.gov).mp4	1,561,550	01:46:09
ExpSeatingMockupDay-03(david.weed@faa.gov).mp4	1,576,202	01:47:11
ExpSeatingMockupDay-04(david.weed@faa.gov).mp4	1,639,563	01:51:29
ExpSeatingMockupDay-05(david.weed@faa.gov).mp4	1,376,566	01:33:34
ExpSeatingMockupDay-06(david.weed@faa.gov).mp4	1,388,684	01:34:26
ExpSeatingMockupDay-07(david.weed@faa.gov).mp4	1,273,705	01:26:38
ExpSeatingMockupDay-08(david.weed@faa.gov).mp4	1,709,048	01:56:11
ExpSeatingMockupDay-09(david.weed@faa.gov).mp4	1,474,469	01:40:16
ExpSeatingMockupDay-10(david.weed@faa.gov).mp4	1,160,580	01:18:54
ExpSeatingMockupDay-11(david.weed@faa.gov).mp4	1,173,335	01:19:44
ExpSeatingMockupDay-12(david.weed@faa.gov).mp4	1,371,484	01:33:15

F.2: DATA_FAA_AM_21_01_Egress_Videos_Evacuation_20230426_1700.zip

This ZIP file contains 48 Video Files that record participants evacuating the FlexSim. The run time for each video is about 45 seconds.

File Name	File Size in MB
R01.mp4	11
R02.mp4	10
R03.mp4	9
R04.mp4	9
R05.mp4	11
R06.mp4	10
R07.mp4	10
R08.mp4	10
R09.mp4	12
R10.mp4	11
R11.mp4	10
R12.mp4	10
R13.mp4	12
R14.mp4	11
R15.mp4	11

R16.mp4	10
R17.mp4	10
R18.mp4	9
R19.mp4	10
R20.mp4	9
R21.mp4	10
R22.mp4	9
R23.mp4	9
R24.mp4	9
R25.mp4	10
R26.mp4	11
R27.mp4	9
R28.mp4	10
R29.mp4	11
R30.mp4	9
R31.mp4	11
R32.mp4	10
R33.mp4	10
R34.mp4	9
R35.mp4	9
R36.mp4	9
R37.mp4	11
R38.mp4	10
R39.mp4	11
R40.mp4	10
R41.mp4	10
R42.mp4	9
R43.mp4	10
R44.mp4	9
R45.mp4	11
R46.mp4	9
R47.mp4	10
R48.mp4	10

D. METHODOLOGICAL INFORMATION

1. Description of methods used for collection/generation of data:

See the report 'Effects of Airplane Cabin Interiors on Egress I: Assessment of Anthropometrics, Seat Pitch, and Seat Width on Egress,' pages 7 to 23 for an explanation of methodology, study design, and recording equipment.

2. Software-specific information needed to interpret the data:

The data files can be opened with any current video player.

E. README UPDATE LOG

2023-04-26: README created by Leighton Christiansen <https://orcid.org/0000-0002-0543-4268>, Data Curator, National Transportation Library, leighton.christiansen@dot.gov