

Fire, Wind, and Waves

CAMI Research Infrastructure Upgrade Report

Presented to: 10th Triennial International Fire and
Cabin Safety Research Conference

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**Federal Aviation
Administration**



Introduction

- **Civil Aerospace Medical Institute (CAMI)**
 - Human Protection and Survival Research Laboratory
 - Cabin Safety Research Team
- **David Weed**
 - Team Coordinator



Outline

- **Flexsim**
- **Firelab**
- **Water Survival Research Facility (WiWaves)**
- **Future Research**



Flexsim

- **Flexible Aircraft Cabin Simulator (Flexsim)**



Flexsim



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Firelab (AFRL)

- **Original Equipment**

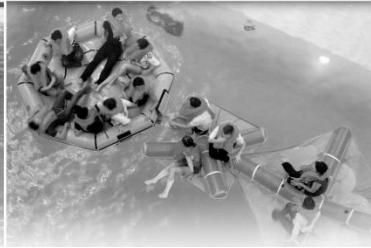
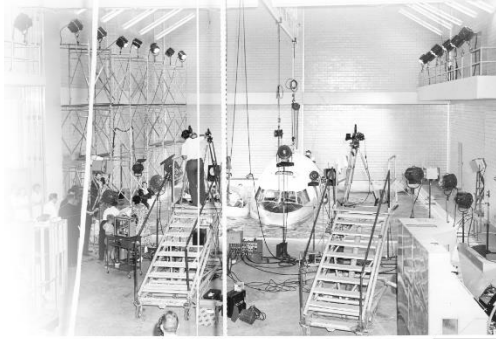


Firelab (AFRL)

- **Purpose Built**
 - FLAME Aviation
- **Fire Scenarios**
- **Crew Procedures**
- **Observation area**



Water Survival Research Facility



WiWaves



WiWAVES

The Wind and Wave Evacuation & Survival Research Facility (WiWAVES) is designed for the Civil Aerospace Medical Institute (CAMI) group which is a part of the Federal Aviation Administration (FAA). This unique research facility is used by the government and the aerospace industry to perform research and

testing of land and water evacuation survival equipment for both small and large aircraft. This facility will be the only one in the world that can create ocean type environments with waves up to 10 foot tall along with 27 knot winds.



VIEW 1 - LOBBY PERSPECTIVE



VIEW 2 - LOBBY PERSPECTIVE



VIEW 3 - LAB TANK PERSPECTIVE



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Future Research

- **Ditching Exit Ratings Evaluation**
- **Extended Reality for Research/Cert**
- **Water Survival Equipment Evaluation**
- **Passenger Education - Luggage**



End

- **Questions?**
- **Comments?**

- **Thank you!**



WiWaves – Agreements/Contacts

- **For usage agreements starting FY24/FY25:**
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