

Survivability

Papers Presented at the AIAA SciTech Forum and Exposition
2025

Orlando, Florida, USA
6-10 January 2025

ISBN: 979-8-3313-1837-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

The contents of this work are copyrighted and additional reproduction in whole or in part are expressly prohibited without the prior written permission of the Publisher or copyright holder. The resale of the entire proceeding as received from CURRAN is permitted.

For reprint permission, please contact AIAA's Business Manager, Technical Papers. Contact by phone at 703-264-7500; fax at 703-264-7551 or by mail at 34922 Uvptkug'Xcmg{'Ftkxg.'Uwkg'422, Reston, VA 20191, USA.

TABLE OF CONTENTS

AIRCRAFT SURVIVABILITY

Portable Electronic Devices in Cabin and Cockpit – Analysis of Hazards.....	1
<i>Simon Holz, Jonas Pfaff, Jürgen Kuder, Sebastian Schopferer, Michael May, Victor Norrefeldt, Arnav Pathak, Marie Pschirer, Maximilian Kienberger</i>	
System Theoretic Process Analysis (STPA) for Novel Tiltrotor Aircraft Comprised of Rotary and Fixed-Wing Components.....	18
<i>Natalie Basnight, Alexander P. Hillman, Nancy G. Leveson</i>	
Electromagnetic Shielding Effectiveness for Composite-Built Multi-Rotor Aircraft.....	35
<i>Dylan S. Bumpus, John H. Hansen</i>	

SPACECRAFT AND MATERIALS SURVIVABILITY

Simulation of Pulsed Laser-Metal Interaction Dynamics	52
<i>Jie Zhang, Eric P. Fahrenthold</i>	
A Meta-Analysis of Radio Frequency Interactions in the Ionosphere and Near-Earth Space	56
<i>Murphy Klein, Matthew Chekhlov, Rajiv Thummala, Gregory Falco</i>	
Effect of Matrix Material on Ballistic Limit for Composite Armor.....	74
<i>Aidan C. Ellisor, Woodrow Turbyfill, John H. Hansen</i>	
Fuel Tank Shallow Jet Spurt Characterization and Modeling Using Natural Frequency.....	92
<i>Justin I. Jung, John H. Hansen</i>	

Author Index