

History

Papers Presented at the AIAA SciTech Forum and Exposition
2025

Orlando, Florida, USA
6-10 January 2025

ISBN: 979-8-3313-1831-4

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

BEYOND TRADITIONAL NARRATIVES IN AEROSPACE HISTORY

Some Topics on the History of Rocket Propulsion in Italy.....	1
<i>Antonio Di Biase</i>	
Neurodivergence: Challenging Marginalizing Biases and Highlighting the Benefit of Neurodiversity in Engineering and Aerospace	163
<i>Patrick W. Goulding</i>	
Bringing Space to Earth: Should We Retrieve Historic Space Objects?.....	182
<i>Matt A. Bille, Michael Ferguson, Aubrey Farrell, Courtney Williams, Rachel Tillman</i>	

HISTORICAL PERSPECTIVES ON AEROSPACE POLICY

How Airport Service Quality and Accessibility Are Mutually Dependent	197
<i>Igor Dos Santos , João A. Camarotto, Luiz A. Tonin</i>	
Thinking Critically About Historical Failures: How Young Professionals Can Expand Their Innovation and Problem-Solving Capacities	217
<i>Stephanie V. Butron</i>	
80 Years of Mistakes Made in Store Separation	240
<i>Alexis Cenko</i>	
Why Did We Stop Flying the Apollo and Why Did the Space Shuttle Transportation System Miss Its Primary Goal?.....	248
<i>John W. Robinson, Russel E. Rhodes</i>	
Space Laws, Regulations and Standards the Past and Need for the Future	254
<i>John W. Robinson</i>	

HISTORY OF INSTITUTIONS AND DESIGN METHODOLOGIES

Reexamining Busemann’s Wing Sweep Theory – a Modern Explanation of Classic Wartime Test Results	261
<i>Arvind G. Iyer, Timothy T. Takahashi</i>	
On the Design Implications of Elliptical and Bell-Shaped Lift Distributions	284
<i>Amogh S. Kulkarni, Timothy T. Takahashi</i>	
The AIAA Niagara Frontier Section: Past, Present and Future	296
<i>Walter O. Gordon</i>	
The History of the AIAA Student Branch at the University of California San Diego	331
<i>Brandon Vinh</i>	
The History of Tri Models.....	353
<i>Kevin R. Burns, Chris Athaide</i>	

MULTI-MODAL TRANSPORTATION

Regional Air Mobility Flight Demand Modeling in Tennessee State 368
Kamal Acharya, Mehul Lad, Houbing Song, Liang Sun

Data-Driven Approach Toward Vertiport Placement for Urban Air Mobility Operations: Case
Studies in South Korea 385
Shinkook Cha, Juchan Lee, Chungho Park, Yujin Kim, Youngjae Lee, Junghyun A. Kim

Author Index