Supersonics

Papers Presented at the AIAA SciTech Forum and Exposition 2021

Online 11-15 & 19-21 January 2021

ISBN: 978-1-7138-2642-2

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 Uwptkug'Xcmg{ 'F tkxg.'Uwkg'422, Reston, VA 20191, USA.

TABLE OF CONTENTS

SUPERSONICS

ROBUST LOW-BOOM DESIGN IN PRIMARY BOOM CARPET Atsushi Ueno, Yoshikazu Makino	1
A DECOUPLED METHOD FOR ESTIMATING NON-IDEAL SONIC BOOM PERFORMANCE OF LOW-BOOM AIRCRAFT DUE TO OFF-DESIGN FLIGHT CONDITIONS AND NON- STANDARD ATMOSPHERES	
David S. Lazzara, Todd Magee, Hao Shen, James H. Mabe, Pedro B. Leal, Darren J. Hartl	
THE IMPACT OF DESIGN SPACE CONSTRAINTS ON THE NOISE AND EMISSIONS FROM DERIVATIVE ENGINES FOR CIVIL SUPERSONIC AIRCRAFT Laurens Voet, Prakash Prashanth, Raymond Speth, Jayant Sabnis, Choon Tan, Steven Barrett	26
FORECASTING THE GLOBAL SUPERSONIC BUSINESS AVIATION FLIGHT MOVEMENTS UP TO 2050 Jiajie Wen, Turab Zaidi, Dimitri N. Mavris	47

Author Index