



Exhaust Nozzle Plume Effects on Sonic Boom Test Results for Isolated Nozzles

By -

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 28 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Reducing or eliminating the operational restrictions of supersonic aircraft over populated areas has led to extensive research at NASA. Restrictions were due to the disturbance of the sonic boom, caused by the coalescence of shock waves formed off the aircraft. Recent work has been performed to reduce the magnitude of the sonic boom N-wave generated by airplane components with focus on shock waves caused by the exhaust nozzle plume. Previous Computational Fluid Dynamics (CFD) analysis showed how the shock wave formed at the nozzle lip interacts with the nozzle boat-tail expansion wave. An experiment was conducted in the 1- by 1-ft Supersonic Wind Tunnel at the NASA Glenn Research Center to validate the computational study. Results demonstrated how the nozzle lip shock moved with increasing nozzle pressure ratio (NPR) and reduced the nozzle boat-tail expansion, causing a favorable change in the observed pressure signature. Experimental results were presented for comparison to the CFD results. The strong nozzle lip shock at high values of NPR intersected the nozzle boat-tail expansion and suppressed the expansion wave. Based on these results, it may be...



READ ONLINE
[5.73 MB]

Reviews

This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You wont feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).

-- **Prof. Kirk Cruickshank DDS**

This kind of book is every little thing and taught me to looking ahead of time and a lot more. I am quite late in start reading this one, but better then never. I found out this book from my dad and i encouraged this pdf to find out.

-- **Justus Hettinger**

Relevant Kindle Books



Animalogy: Animal Analogies

Sylvan Dell Publishing. Paperback. Book Condition: New. Cathy Morrison (illustrator). Paperback. 32 pages. Dimensions: 9.8in. x 8.4in. x 0.4in. Compare and contrast different animals through predictable, rhyming analogies. Find the similarities between even the most incompatible animals... bat is to...



The Whale Tells His Side of the Story Hey God, Ive Got Some Guy Named Jonah in My Stomach and I Think Im Gonna Throw Up

B&H Kids. Hardcover. Book Condition: New. Cory Jones (illustrator). Hardcover. 32 pages. Dimensions: 9.1in. x 7.2in. x 0.3in. Oh sure, well all heard the story of Jonah and the Whale a hundred times. But have we heard it from the perspective of the...



When Santa Claus Prayed

Xulon Press. Paperback. Book Condition: New. Paperback. 28 pages. Dimensions: 9.0in. x 8.1in. x 0.3in. Dad, youre wrong about Santa Claus! I cant sit on baby Jesuss lap or even see him! I cant send letters to Jesus! Santa Claus is the star...



Good Night, Zombie Scary Tales

Feiwei & Friends. Paperback. Book Condition: New. Iacopo Bruno (illustrator). Paperback. 112 pages. Dimensions: 8.2in. x 5.4in. x 0.2in. Welcome. Have a seat. Ignore the shambling undead outside. Let us tell you a story. But be warned. Good Night, Zombie isnt just any...



God Loves You. Chester Blue

Henry and George Press. Paperback. Book Condition: New. Ursula Andrejczuk (illustrator). Paperback. 140 pages. Dimensions: 8.0in. x 5.2in. x 0.3in. BEAUTIFUL NEW ILLUSTRATIONS BRING THE STORY TO LIFE! A charming book about a mysterious bear that shows up in the right place at just...



Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 52 pages. Dimensions: 9.0in. x 6.0in. x 0.1in. Still finding it getting your way around your Kindle Fire Wish you had the answers to all your frequently asked...