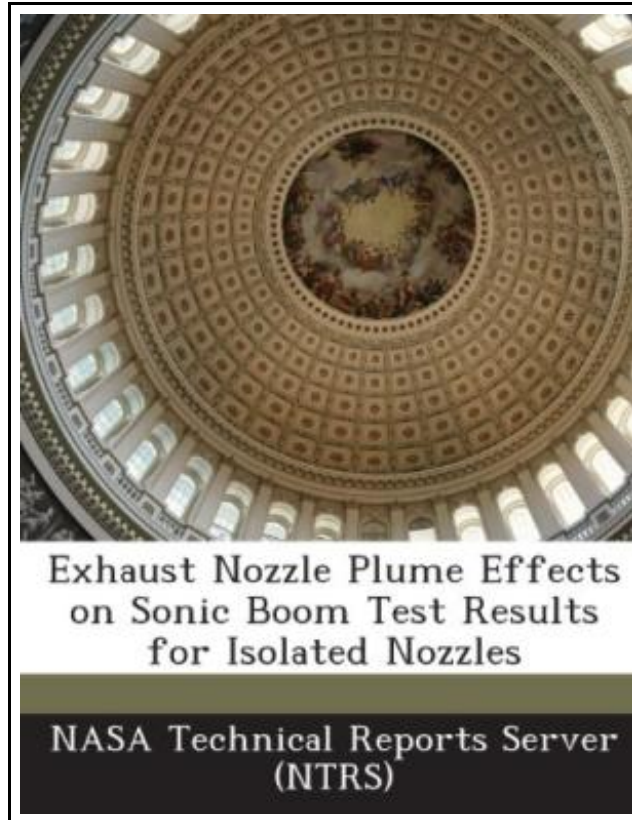


Exhaust Nozzle Plume Effects on Sonic Boom Test Results for Isolated Nozzles



Filesize: 4.6 MB

Reviews

This ebook may be worth a read, and far better than other. It is among the most incredible ebook i have read. You will like the way the article writer publish this publication.
(Candace Raynor)

EXHAUST NOZZLE PLUME EFFECTS ON SONIC BOOM TEST RESULTS FOR ISOLATED NOZZLES



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 feasible to reduce the boat-tail expansion for a future supersonic aircraft with under-expanded nozzle exhaust flow by modifying nozzle pressure or nozzle divergent section geometry. This item ships from La Vergne, TN. Paperback.



[Read Exhaust Nozzle Plume Effects on Sonic Boom Test Results for Isolated Nozzles Online](#)



[Download PDF Exhaust Nozzle Plume Effects on Sonic Boom Test Results for Isolated Nozzles](#)

Other 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...

[Save PDF >](#)



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...

[Save PDF >](#)



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 Jesus lap or even see him! I cant send letters...

[Save PDF >](#)



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...

[Save PDF >](#)



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...

[Save PDF >](#)