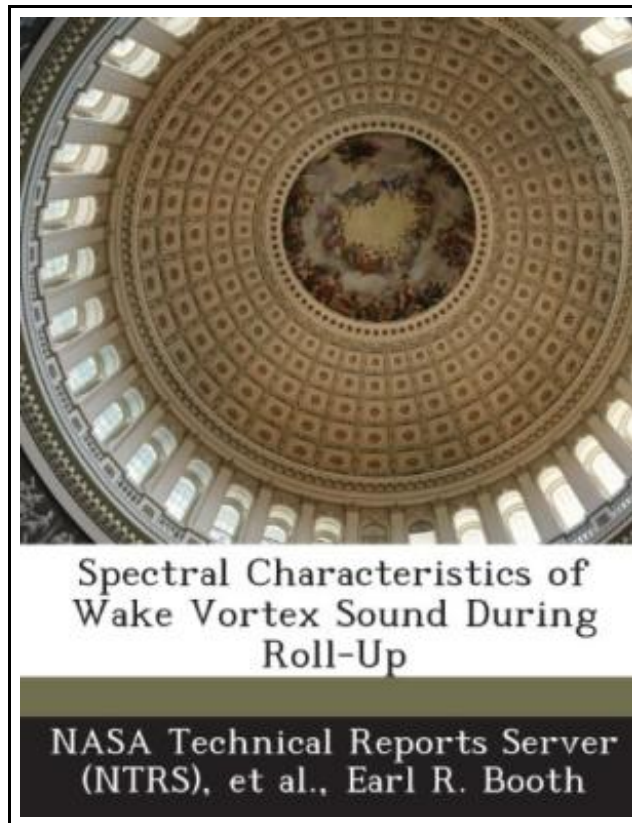


## Spectral Characteristics of Wake Vortex Sound During Roll-Up



Filesize: 6.79 MB

### ***Reviews***

*It in a of the best publication. It really is rally intriguing throgh reading through period of time. You will not feel monotony at anytime of your own time (that's what catalogs are for relating to in the event you request me).*

*(Dr. Pat Hegmann)*

## SPECTRAL CHARACTERISTICS OF WAKE VORTEX SOUND DURING ROLL-UP

[DOWNLOAD](#)

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This report presents an analysis of the sound spectra generated by a trailing aircraft vortex during its rolling-up process. The study demonstrates that a rolling-up vortex could produce low frequency (less than 100 Hz) sound with very high intensity (60 dB above threshold of human hearing) at a distance of 200 ft from the vortex core. The spectrum then drops o rapidly thereafter. A rigorous analytical approach has been adopted in this report to derive the spectrum of vortex sound. First, the sound pressure was solved from an alternative treatment of the Lighthill s acoustic analogy approach [1]. After the application of Green s function for free space, a tensor analysis was applied to permit the removal of the source term singularity of the wave equation in the far field. Consequently, the sound pressure is expressed in terms of the retarded time that indicates the time history and spacial distribution of the sound source. The Fourier transformation is then applied to the sound pressure to compute its spectrum. As a result, the Fourier transformation greatly simplifies the expression of the vortex sound pressure involving the retarded time, so that the numerical computation is applicable with ease for axisymmetric line vortices during the rolling-up process. The vortex model assumes that the vortex circulation is proportional to the time and the core radius is a constant. In addition, the velocity profile is assumed to be self-similar along the aircraft flight path, so that a benchmark vortex velocity profile can be devised to obtain a closed form solution, which is then used to validate the numerical calculations for other more realistic vortex profiles for which no closed form solutions are available....

[Read Spectral Characteristics of Wake Vortex Sound During Roll-Up Online](#)[Download PDF Spectral Characteristics of Wake Vortex Sound During Roll-Up](#)

## Other PDFs



**Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now...

[Download Book »](#)



**Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

[Download Book »](#)



**Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can download...

[Download Book »](#)



**Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .**

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can usually...

[Download Book »](#)



**The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574)**

Eebo Editions, Proquest, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now...

[Download Book »](#)

**Hope for Autism: 10 Practical Solutions to Everyday Challenges**

Seaborough Enterprises Publishing, United States, 2015. Paperback. Book Condition: New. Initial ed.. 203 x 127 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Hope for Autism: 10 Practical Solutions to Everyday

[Download Document »](#)

**THE Key to My Children Series: Evan s Eyebrows Say Yes**

AUTHORHOUSE, United States, 2006. Paperback. Book Condition: New. 274 x 216 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.THE KEY TO MY CHILDREN SERIES: EVAN S EYEBROWS SAY YES is about

[Download Document »](#)

**Never Invite an Alligator to Lunch!**

Lucky Me Publishing, LLC, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. NEVER Invite an Alligator to Lunch! delivers a fun,

[Download Document »](#)

**Ohio Court Rules 2013, Practice Procedure**

Createspace, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Superseded by 2014 Edition. This title is available, but should be relied

[Download Document »](#)

**Ohio Court Rules 2012, Practice Procedure**

Createspace, United States, 2011. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Superseded by 2013 Edition. This title is available, but should be relied upon

[Download Document »](#)