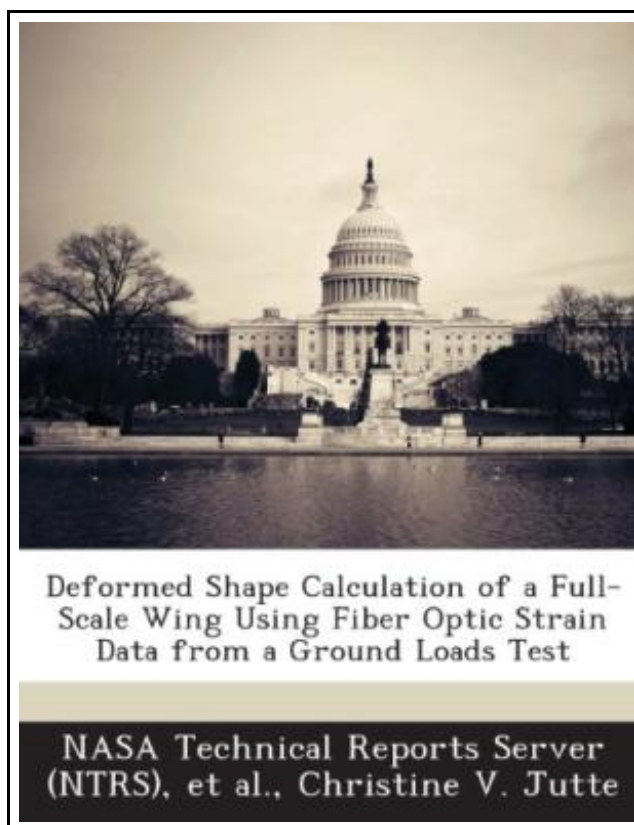


## Deformed Shape Calculation of a Full-Scale Wing Using Fiber Optic Strain Data from a Ground Loads Test (Paperback)



Filesize: 8.16 MB

### ***Reviews***

*The book is fantastic and great. It normally will not cost an excessive amount of. I am just easily could possibly get a satisfaction of reading a published ebook.*  
*(Edgar Witting)*

## DEFORMED SHAPE CALCULATION OF A FULL-SCALE WING USING FIBER OPTIC STRAIN DATA FROM A GROUND LOADS TEST (PAPERBACK)

[DOWNLOAD](#)

To save **Deformed Shape Calculation of a Full-Scale Wing Using Fiber Optic Strain Data from a Ground Loads Test (Paperback)** PDF, you should click the link listed below and save the file or gain access to other information that are in conjunction with DEFORMED SHAPE CALCULATION OF A FULL-SCALE WING USING FIBER OPTIC STRAIN DATA FROM A GROUND LOADS TEST (PAPERBACK) ebook.

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.A ground loads test of a full-scale wing (175-ft span) was conducted using a fiber optic strain-sensing system to obtain distributed surface strain data. These data were input into previously developed deformed shape equations to calculate the wing's bending and twist deformation. A photogrammetry system measured actual shape deformation. The wing deflections reached 100 percent of the positive design limit load (equivalent to 3 g) and 97 percent of the negative design limit load (equivalent to -1 g). The calculated wing bending results were in excellent agreement with the actual bending; tip deflections were within +/- 2.7 in. (out of 155-in. max deflection) for 91 percent of the load steps. Experimental testing revealed valuable opportunities for improving the deformed shape equations robustness to real world (not perfect) strain data, which previous analytical testing did not detect. These improvements, which include filtering methods developed in this work, minimize errors due to numerical anomalies discovered in the remaining 9 percent of the load steps. As a result, all load steps attained +/- 2.7 in. accuracy. Wing twist results were very sensitive to errors in bending and require further development. A sensitivity analysis and recommendations for fiber implementation practices, along with, effective filtering methods are included.



[Read Deformed Shape Calculation of a Full-Scale Wing Using Fiber Optic Strain Data from a Ground Loads Test \(Paperback\) Online](#)



[Download PDF Deformed Shape Calculation of a Full-Scale Wing Using Fiber Optic Strain Data from a Ground Loads Test \(Paperback\)](#)

## Related Books



[PDF] **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 . (Paperback)**

Follow the link beneath to download "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 . (Paperback)" PDF document.

[Download PDF »](#)



[PDF] **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 (Paperback)**

Follow the link beneath to download "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 (Paperback)" PDF document.

[Download PDF »](#)



[PDF] **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) (Paperback)**

Follow the link beneath to download "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) (Paperback)" PDF document.

[Download PDF »](#)



[PDF] **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) (Paperback)**

Follow the link beneath to download "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) (Paperback)" PDF document.

[Download PDF »](#)



[PDF] **A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home (Paperback)**

Follow the link beneath to download "A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home (Paperback)" PDF document.

[Download PDF »](#)



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

Follow the link beneath to download "The First Epistle of H. N. a Crying-Voyce of the Holye Spirit of Loue. Translated Out of Base-Almayne Into English. (1574) (Paperback)" PDF document.

[Download PDF »](#)

