

Investigation of Land Subsidence in the Houston-Galveston Region of Texas by Using the Global Positioning System and Interferometric Synthetic Aperture Radar, 1993-2000: Usgs Scientific Investigations Report 2012-5211



Filesize: 7.73 MB

Reviews

It becomes an awesome publication that I actually have actually read. It really is written in simple terms and not difficult to understand. Once you begin to read the book, it is extremely difficult to leave it before concluding.
(Talia Cormier)

INVESTIGATION OF LAND SUBSIDENCE IN THE HOUSTON-GALVESTON REGION OF TEXAS BY USING THE GLOBAL POSITIONING SYSTEM AND INTERFEROMETRIC SYNTHETIC APERTURE RADAR, 1993-2000: USGS SCIENTIFIC INVESTIGATIONS REPORT 2012-5211

[DOWNLOAD PDF](#)

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.Since the early 1900s, groundwater has been the primary source of municipal, industrial, and agricultural water supplies for the Houston-Galveston region, Texas. The region's combination of hydrogeology and nearly century-long use of groundwater has resulted in one of the largest areas of subsidence in the United States; by 1979, as much as 3 meters (m) of subsidence had occurred, and approximately 8,300 square kilometers of land had subsided more than 0.3 m. The U.S. Geological Survey, in cooperation with the Harris-Galveston Subsidence District, used interferometric synthetic aperture radar (InSAR) data obtained for four overlapping scenes from European remote sensing satellites ERS-1 and ERS-2 to analyze land subsidence in the Houston-Galveston region of Texas. The InSAR data were processed into 27 interferograms that delineate and quantify land-subsidence patterns and magnitudes. Contemporaneous data from the Global Positioning System (GPS) were reprocessed by the National Geodetic Survey and analyzed to support, verify, and provide temporal resolution to the InSAR investigation. The interferograms show that the area of historical subsidence in downtown Houston along the Houston Ship Channel has stabilized and that recent subsidence occurs farther west and north of Galveston Bay. Three areas of recent subsidence were delineated along a broad arcuate (bowshaped) feature from Spring, Tex., southwest to Cypress, Tex., and south to Sugar Land, Tex., with subsidence rates ranging from 15 millimeters per year (mm/yr) to greater than 60 mm/yr. Multiyear interferograms near Seabrook, Tex., within the historical subsidence area and nearby Galveston Bay, show several fringes of subsidence (approximately 85 millimeters from January 1996 to December 1997) in the area; however it is difficult to determine the subsidence magnitude near Seabrook because many of the InSAR fringes...



[Read Investigation of Land Subsidence in the Houston-Galveston Region of Texas by Using the Global Positioning System and Interferometric Synthetic Aperture Radar, 1993-2000: Usgs Scientific Investigations Report 2012-5211 Online](#)



[Download PDF Investigation of Land Subsidence in the Houston-Galveston Region of Texas by Using the Global Positioning System and Interferometric Synthetic Aperture Radar, 1993-2000: Usgs Scientific Investigations Report 2012-5211](#)

Other Kindle Books



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...

[Read Document »](#)



Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age

Adams Media Corporation. Paperback. Book Condition: new. BRAND NEW, Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age, David Dutwin, TV. Web Surfing. IMing. Text Messaging. Video...

[Read Document »](#)



Using Graphic Novels in the Classroom, Grades 4-8

Teacher Created Materials. Paperback / softback. Book Condition: new. BRAND NEW, Using Graphic Novels in the Classroom, Grades 4-8, Melissa Hart, Since todays young readers live in a highly visual world, its no surprise that...

[Read Document »](#)



Fart Book African Bean Fart Adventures in the Jungle: Short Stories with Moral

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Black White Illustration Version! BONUS- Includes FREE Dog Fart Audio Book for...

[Read Document »](#)



Read Write Inc. Phonics: Pink Set 3 Storybook 8 in the Night

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. Tim Archbold (illustrator). 201 x 148 mm. Language: N/A. Brand New Book. These engaging Storybooks provide structured practice for children learning to read the Read...

[Read Document »](#)