Date and Time: Tuesday, February 27, 2024 8:55:00AM EST

Job Number: 218103057

Document (1)

1. *Researchers at University of Texas Austin Target Remote Sensing (Analysis of Depths Derived by Airborne Lidar and Satellite Imaging to Support Bathymetric Mapping Efforts with Varying Environmental Conditions: Lower Laguna Madre, Gulf of Mexico)*

Client/Matter: -None-

Search Terms: "Bureau of Economic Geology"

Search Type: Natural Language

Narrowed by:

Content Type	Narrowed by
News	Timeline: Jan 01, 2024 to Jan 31, 2024

Researchers at University of Texas Austin Target Remote Sensing (Analysis of Depths Derived by Airborne Lidar and Satellite Imaging to Support Bathymetric Mapping Efforts with Varying Environmental Conditions: Lower Laguna Madre, Gulf of Mexico)

Tech Daily News

January 5, 2024 Friday

Section: TECHNOLOGY - REMOTE SENSING

Length: 479 words

Body

2024 JAN 05 (NewsRx) -- By a News Reporter-Staff News Editor at Tech Daily News -- Investigators discuss new findings in remote sensing. According to news reporting originating from Austin, Texas, by NewsRx correspondents, research stated, "In 2017, ***Bureau of Economic Geology*** (BEG) researchers at the University of Texas at Austin (UT Austin) conducted an airborne lidar survey campaign, collecting topographic and bathymetric data over Lower Laguna Madre, which is a shallow hypersaline lagoon in south Texas."

Funders for this research include Texas General Land Office; Texas Water Development Board.

The news correspondents obtained a quote from the research from University of Texas Austin: "Researchers acquired 60 hours of lidar data, covering an area of 1600 km^2 with varying environmental conditions influencing water quality and surface heights. In the southernmost parts of the lagoon, in-situ measurements were collected from a boat to quantify turbidity, water transparency, and depths. Data analysis included processing of Sentinel-2 L1C satellite imagery pixel reflectance to classify locations with intermittent turbidity. Lidar measurements were compared to sonar recordings, and results revealed height differences of 5-25 cm where the lagoon was shallower than 3.35 m. Further, researchers analyzed satellite bathymetry at relatively transparent lagoon locations, and the results produced height agreement within 13 cm."

According to the news reporters, the research concluded: "The study concluded that bathymetric efforts with airborne lidar and optical satellite imaging have practical limitations and comparable results in large and dynamic shallow coastal estuaries, where in-situ measurements and tide adjustments are essential for height comparisons."

For more information on this research see: Analysis of Depths Derived by Airborne Lidar and Satellite Imaging to Support Bathymetric Mapping Efforts with Varying Environmental Conditions: Lower Laguna Madre, Gulf of Mexico. Remote Sensing, 2023,15(24):5754. (Remote Sensing - http://www.mdpi.com/journal/remotesensing/). The publisher for Remote Sensing is MDPI AG.

A free version of this journal article is available at https://doi.org/10.3390/rs15245754.

Our news editors report that more information may be obtained by contacting Kutalmis Saylam, Near Surface Observatory, ***Bureau of Economic Geology***, John A. and Katherine G. Jackson School of Geosciences, University of Texas Austin, Austin, TX 78758, United States. Additional authors for this research include Alejandra Briseno, Aaron R. Averett, John R. Andrews.

Keywords for this news article include: University of Texas Austin, Austin, Texas, United States, North and Central America, Remote Sensing, Technology.

Classification

Language: ENGLISH

Document-Type: Expanded Reporting

Publication-Type: Newsletter

Subject: COLLEGES & UNIVERSITIES (90%); EXPERIMENTATION & RESEARCH (90%); GEOSPATIAL DATA (90%); INVESTIGATIONS (90%); JOURNALISM (90%); NEWS REPORTING (90%); SURVEYING & MAPPING (90%); GEOLOGY & GEOPHYSICS (89%); RESEARCH REPORTS (89%); DATA ANALYTICS (78%); WATER RESOURCES (75%); WRITERS (73%); Remote Sensing;Technology (%)

Organization: UNIVERSITY OF TEXAS (93%)

Industry: REMOTE SENSING TECHNOLOGY (92%); COLLEGES & UNIVERSITIES (90%); EARTH OBSERVATION SATELLITES (90%); GEOSPATIAL DATA (90%); NEWS REPORTING (90%); SPACE DATA INDUSTRY (90%); SURVEYING & MAPPING (90%); SATELLITE INDUSTRY (89%); INFORMATION MANAGEMENT & TECHNOLOGY (79%); DATA ANALYTICS (78%); ELECTRONIC SENSORS & DETECTORS (78%); SONAR SYSTEMS (75%); WRITERS (73%)

Geographic: AUSTIN, TX, USA (94%); TEXAS, USA (96%); ATLANTIC OCEAN (92%); CENTRAL AMERICA (79%)

Load-Date: January 5, 2024