25th Annual Hurricane/Wildfire Disaster Geospatial Data Mining Workshop

NASA/UL Lafayette Regional Application Center

University of Louisiana at Lafayette

June

2024

REGIONAL APPLICATION CENTER

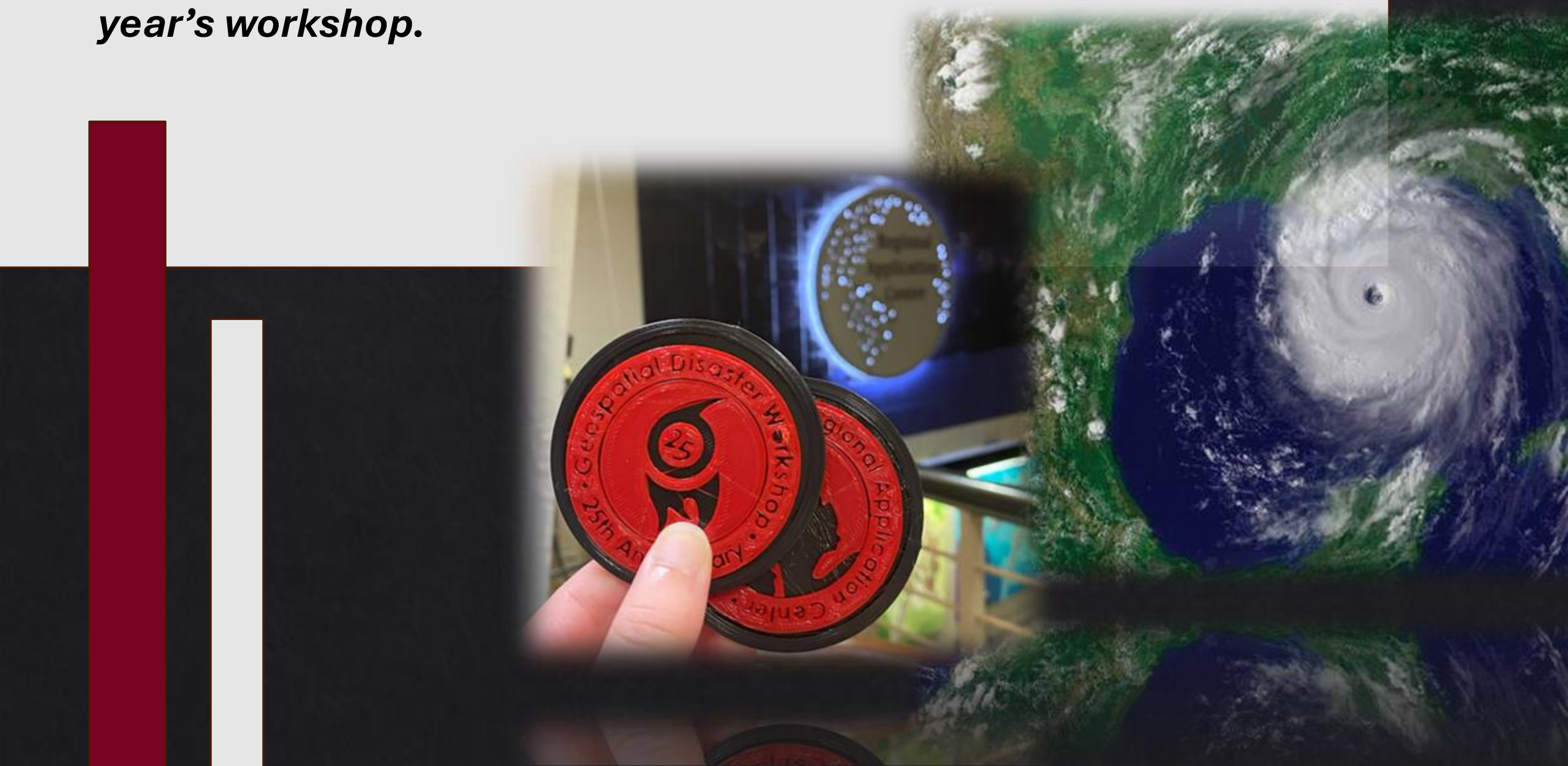
AMERICA VIEW SM

LOUISIANA VIEW .ORG

USGS science for a changing world

25th anniversary of disaster response

Thank you for participating in our 25th Anniversary Hurricane/Wildfire Disaster Geospatial Data Mining workshop. This year, our hybrid In-Person/Virtual Workshop expanded to the LITE Center next door to Abdalla Hall, which helped increase our geospatial responder community and allowed more individuals to be part of this data mining outreach for emergency response. Our workshop hosted 130 in person and 105 virtually, representing 15 countries and 14 U.S. states and territories. This workshop allowed face-to-face engagement with representatives from the federal, state, and local emergency response communities while allowing participation virtually to geospatial emergency responders across the globe. In this brochure, you will find the agenda for the day's activities, presenters' bios, along with a summary and related links for all presentations and agency data covered in this year's workshop.



Workshop Coordinators

Rodney B. Yantis, MLA

Director

NASA/UL Lafayette Regional Application Center, LouisianaView

Rodney Yantis is the Director of the NASA/UL Lafayette Regional Application Center located in the Research Park of the University of Louisiana at Lafayette. He has a Bachelor's degree in Agriculture and a Master's Degree in Landscape Architecture: Landscape Ecology/GIS and Remote Sensing from Louisiana State University. He is currently a board member of the National AmericaView program; Director of LouisianaView; State Contractor to the Louisiana Army National Guard; Contractor to the USGS WARC; NOAA Weather Ready Nation Ambassador and a member of URISA, ASPRS and a project manager for the International Charter Space and Major Disasters.

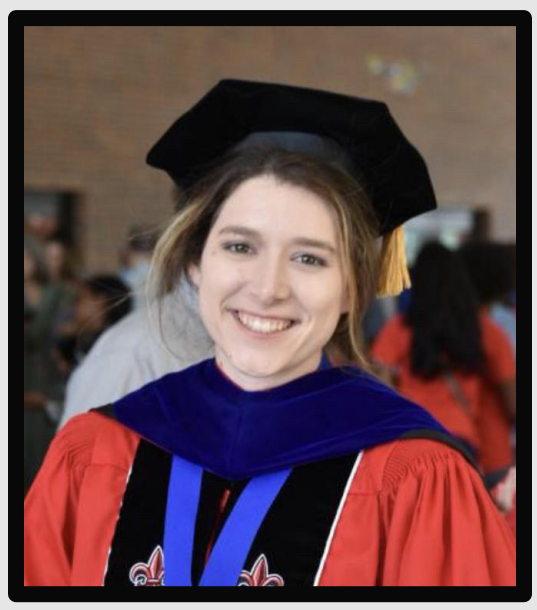
Michelle Fischer

National Map Liaison-AR, LA

United States Geological Survey

Michelle Fischer began her career as a geographer with USGS in 2008, at the National Wetlands Research Center, now the Wetland and Aquatic Reseach Center, where she served as the geospatial team lead for restoration efforts in Louisiana and the gulf coast. She joined to the National Geospatial Program, User Engagement team in December 2023, where she serves as the National Map Liaison to Louisiana and Arkansas. She works to develop partnerships and data acquisition agreements in those states to ensure the availability of elevation and hydrography datasets for a broad range of users and applications.

Workshop Coordinators



Dr. Courtney Poirier Chicola

Postdoctoral Researcher
NASA/UL Lafayette Regional Application Center, LouisianaView

Dr. Courtney is a postdoctoral researcher at the NASA/UL Lafayette Regional Application Center located in the Research Park of the University of Louisiana at Lafayette. She has a Bachelor's degree in Environmental Science, Master's degree in Environmental Resource Science, and a PhD in Earth and Energy Sciences from the University of Louisiana at Lafayette. Her research focuses on ecohydrology, atmospheric chemistry, geoscience education, and GIS/remote sensing. As a member of the National AmericaView and LouisianaView program, she coordinates education outreach materials including the traveling Earth as Art exhibit and undergraduate mentorship program focusing on earth observation and geosciences.

Rusti Liner

Assistant Professor, Geography
Chair, Safety & Emergency Preparedness Committee
River Parishes Community College

Professor Liner teaches Geography and Emergency Management courses at River Parishes Community College and Dillard University. She has been teaching college courses since 2010. In 2006, she was promoted to Geospatial Unit Lead for the Hurricane Katrina recovery team in Baton Rouge, LA. She worked for three years in this role and supported 15 other nationally declared disasters from 2004 to 2009. At RPCC, she has developed a concentration of Emergency Management that allows General Studies majors to take up to 18 hours of courses and participate in internship opportunities in various disaster programs across the nation. She is a proud supported or QGIS and uses it exclusively in her interactive GIS courses.

Contents

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June 6th, Day of the Workshop

The 2024 Disaster Workshop was held on June 6th at the Louisiana Immersive Technologies Enterprise (LITE) Center/Regional Application Center near the Cajundome, which was the 25th anniversary of the series.

You can access the 2024 Disaster Workshop Files and Recordings using the link provided.

https://drive.google.com/drive/folders/1jUmNjwqlgSvRiOqzz8PrqkQrbdkL5zuB?usp=sharing

Tyler Stanfield

Meteorologist

National Weather Service – New Orleans/Baton Rouge

Tyler Stanfield is a meteorologist and GIS program lead at the National Weather Service office in Slidell, LA. He received his Bachelor's degree in Meteorology from the University of Oklahoma and Master's degree in Geography from Virginia Tech. Tyler is also part of the Local Chapter Affairs Committee for the American Meteorological Society where he supports local chapters in advancing atmospheric and related sciences, technologies, applications, and services for the benefit of society.

Presentation Title:

GIS and NWS Overview

Link to Slides:

https://drive.google.com/file/d/1nZGRvHlwq7fr2gaR_p3Nm9tDmH2o3H_-/view?usp=sharing

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Marti Calhoun

Meteorologist

National Weather Service – Lake Charles

Marti Calhoun is a Meteorologist and GIS program lead with the National Weather Service (NWS) office in Lake Charles, Louisiana. She received her bachelor's degree from Mississippi State University in Geosciences; Professional Meteorology with a minor in GIS. Prior to joining the NWS, Marti served the state of Mississippi for 2 years as an emergency manager and state meteorologist before transitioning to the state GIS department for some time. Marti has been a part of the Lake Charles staff since 2021 where she now participates in forecast and warning operations while also overseeing GIS projects.

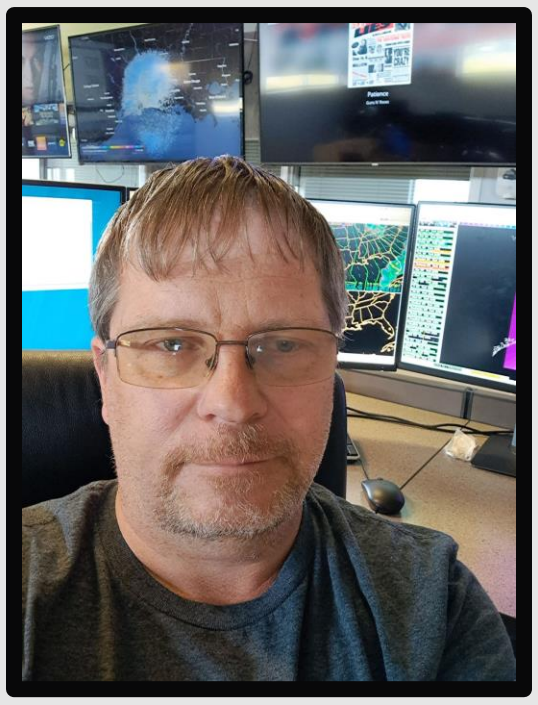
Presentation Title:

GIS and Fire Weather

Link to Slides:

https://drive.google.com/file/d/1nZGRvHlwq7fr2gaR_p3Nm9tDmH2o3H_-/view?usp=sharing

Morning Sessions I



Jonathan Brazzell

Service Hydrologist

National Weather Service – Lake Charles

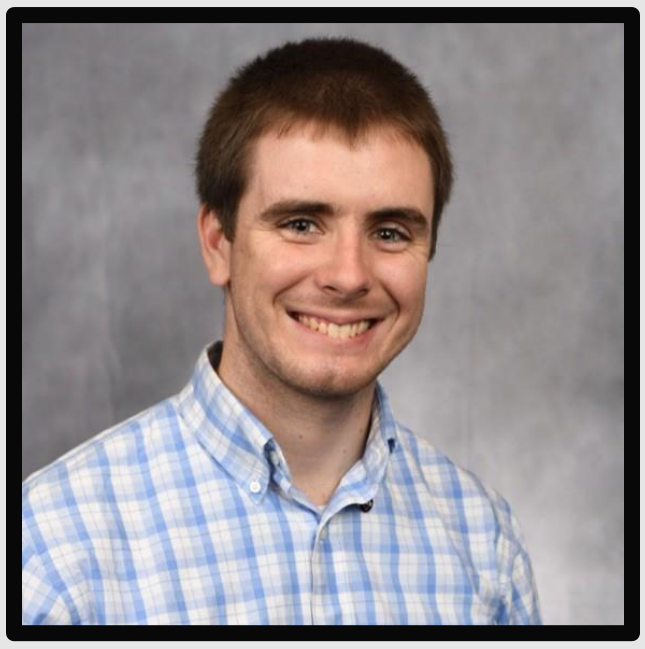
Mr. Brazzell is the Service Hydrologist at the NOAA/ National Weather Service Forecast Office in Lake Charles, Louisiana. In this capacity, he manages the office's hydrologic forecasting program, which issues water level and flood forecasts across 22 counties and parishes in southeast Texas, southwest and central Louisiana. Jonathan has been with the National Weather Service for 26 years and has been stationed in Grand Forks, North Dakota as a Weather Forecaster, then in San Angelo Texas as a Senior Forecaster before moving into his current position at Lake Charles in 2007.

Presentation Title:

National Water Prediction Service

Link to Slides:

https://drive.google.com/file/d/1nZGRvHlwq7fr2gaR_p3Nm9tDmH2o3H_-/view?usp=sharing



Ronan Lucey

Center Response Coordinator, NASA Disasters Program

University of Alabama in Huntsville / NASA Marshall Space Flight Center

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Ronan Lucey is a Research Associate at the University of Alabama in Huntsville Earth System Science Center (UAH ESSC), serving as the Principal Investigator coordinating UAH ESSC's support of several NASA Marshall Space Flight Center (MSFC) activities, including support of the NASA Disasters Program. He serves as a Center Response Coordinator (CRC) for the NASA Disasters Program Disaster Response Coordination System (DRCS) and is a member of the Disasters Program GIS Team. He has significant experience with stakeholder engagement, as well as working with Earth Observation data for disaster applications. Ronan has worked with NASA for approximately 7 years, including almost 5 years working with the Disasters program. He holds a bachelor's degree in Geography from the University of Massachusetts and a master's degree in Earth System Science from the University of Alabama in Huntsville.

Presentation Title:

NASA's Disaster Program

Link to Slides:

http://drive.google.com/file/d/1xjSAlYi-md4r9aWv8QaHAoBMxxRmpB9R/view?usp=sharing

Alex Melancon

Research Associate, UAH Earth System Science Center

University of Alabama in Huntsville / NASA Marshall Space Flight Center

Alexander Melancon is a Research Associate at the University of Alabama in Huntsville's Earth System Science Center (UAH ESSC). Originally from St. Amant, LA, he earned a B.S. in Atmospheric Science at the University of Louisiana in Monroe and a M.S. in Earth System Science from the University of Alabama in Huntsville. Alex supports the NASA Disasters Program during event responses and through funded research activities such as evaluating vendors for the NASA Commercial SmallSat Data Acquisition Program (CSDAP) and the calibration and validation of Synthetic Aperture Radar (SAR) flood mapping algorithms.

Presentation Title:

NASA's Disaster Program

Link to Slides:

http://drive.google.com/file/d/1xjSAlYi-md4r9aWv8QaHAoBMxxRmpB9R/view?usp=sharing

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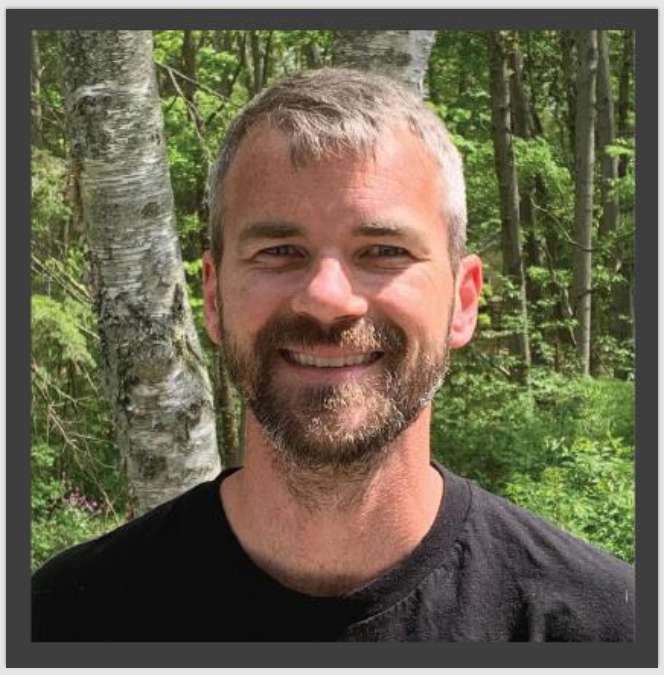

Benjamin Rance

Community Resilience Project Lead

FEMA Headquarters, Resilience Analysis Branch

Benjamin Rance is the Project Lead for Community Resilience in the Resilience Analysis Branch at FEMA Headquarters. Since 2019, Benjamin has been responsible for engaging with federal partners, State agencies and local Emergency Managers to provide resources and guidance into community development actions to increase resilience and preparedness for communities and individuals. In addition to working at FEMA, he has over six years of experience working in international community development for the Peace Corps, both overseas and in Washington, DC. Benjamin loves supporting the State of Louisiana, especially when he can support in-person and eat all of the boudin balls, crawfish etouffee and cracklins.

Presentation Title:

New Tool, Who Dis? Updated Resilience Analysis and Planning Tool for Emergency Managers

Link to Slides:

https://drive.google.com/file/d/1QB5L4FYf1zdMgckvqOKQLgn5ft3UirLZ/view?usp=sharing

Morning Sessions II

Timothy Newman

National Land Imaging Program Coordinator

USGS National Land Imaging Program

Timothy Newman is the Program Coordinator for the National Land Imaging Program and the Acting Program Coordinator for the Land Change Science Program. He serves as the Program Coordinator for the $100 million per year USGS National Land Imaging (NLI) Program, which develops and operates the Landsat satellites and provides the Nation's portal to the largest civil archive of remotely sensed land data in the world. As Program Coordinator, Tim is responsible for the NLI-related activities of nearly 150 Federal Government personnel and 300 contractor staff at six locations across the Nation, including the Earth Resources Observation and Science (EROS) Center in Sioux Falls, South Dakota. Tim's USGS headquarters office is responsible for providing program policy, oversight and guidance, formulating and executing budgets, interfacing with senior Administration and Congressional staff, building international earth observation partnerships, interacting with the aerospace and remote sensing industries, and overseeing the development of remote sensing science and applications. Before he came to the USGS, Tim served in the U.S. Air Force in a variety of space-related activities, retiring as a Lieutenant Colonel.

Presentation Title:

USGS National Land Imaging "Landsat Next" Update

Link to Slides:

https://drive.google.com/file/d/1gvMqSdW5YmfUq7eUPsNsvqB6yQcGX02g/view?usp=sharing

Tim Osborn

Central Gulf Coast Regional Navigation Manager

NOAA Office of Coast Survey

Tim oversees surveying and mapping of Gulf Coast waters, navigation channels, ports, waterways, and coordinates the NOAA OCS response activities during hurricanes and severe incidents. He participates in the planning and implementation of new programs such as densification of NOAA's tides and water level programs and installations (including PORTS, and IOOS related activities) in the Gulf of Mexico. He works with local state and coastal communities on coastal projects including restoration projects, artificial reef programs, new navigation and port installations and the surveying and mapping of marine debris.

Presentation Title:

Coastal Landscape Changes and Storms…Issues of Sea Level Rise and Vulnerability

Link to Slides:

https://drive.google.com/file/d/1SD2luoEtx2cpb8KtjU7doK-tTKBmmJTZ/view?usp=sharing

Mike Budde

Geographer

U.S. Geological Survey (USGS) Earth Resources Observation and Science Center

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Mike Budde is a geographer at the US Geological Survey (USGS) Earth Resources Observation and Science Center in Sioux Falls, SD. Budde is the project manager for the Famine Early Warning Systems Network and acts as the USGS Liaison to the International Charter Space and Major Disasters. In addition to his role as an Executive Secretariat member of the Charter, he also functions at the Authorized User (AU) for the United States, which allows him to activate the Charter on behalf of emergency managers in the US and other countries without an AU, as needed.

Presentation Title:

The International Charter Space and Major Disasters – Overview and Wildfire Response

Link to Slides:

https://drive.google.com/file/d/1XsY9iqm9gfDm_v5RczKswCELLxtYkpGx/view?usp=sharing

Dean Mierau

Emergency Operations Coordinator

U.S. Geological Survey (USGS) Earth Resources Observation and Science Center

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Dean Mierau, a native of Rushford, Minnesota, graduated from Winona State University in 1996 with a degree in Hydrogeology and later attended graduate school at Saint Mary's University and graduated with a Master of Science Degree in Resource Analysis. He also attended Reserve Officer Training Corps (ROTC) and was commissioned as Information Warfare Officer. He spent 5 years teaching GIS/Remote Sensing at Saint Mary's University. After 911, he went on active duty until 2013, when he took a job with the Air Force as their Geospatial Information Officer at Minot ND Air Force Base. Spent 3 years in balmy Minot before joining EROS and is currently the Emergency Operations Liaison.

Presentation Title:

USGS EROS Emergency Operations Overview

Link to Slides:

https://drive.google.com/file/d/1b7RbZ2aal7P3kNFjAa4P72ZaSC_uWT-f/view?usp=sharing

Afternoon Sessions I

Brenda Ellis

Lead IT Customer Support Analyst

U.S. Geological Survey (USGS) Earth Resources Observation and Science Center

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Brenda Ellis is a KBR contractor supporting the Technical Support Services Contract at the USGS EROS Data Center in Sioux Falls SD. She leads the Emergency Operations Team at EROS as well as provides critical support for emergency managers both Domestic and International. Brenda's expertise with Hazards Data Distribution System (HDDS) and Collection Management Tool (CMT) allow her to perform her duties with utmost efficiency and professionalism.

Presentation Title:

Hazards Data Distribution System (HDDS) and Collection Management Tool (CMT)

Link to Slides:

https://drive.google.com/file/d/1b7RbZ2aal7P3kNFjAa4P72ZaSC_uWT-f/view?usp=sharing

Kurtis Nelson

Physical Scientist

USGS EROS Fire Science Team

Kurtis Nelson is a physical scientist with the U.S. Geological Survey's Earth Resources Observation and Science Center in Sioux Falls, SD. He manages multiple wildfire-related programs both research and operational encompassing fire risk, fuels mapping, fire behavior modeling, burn severity mapping, post-fire recovery monitoring, fuel treatment effectiveness and more. He is also a qualified GIS Specialist on a National Complex Incident Management Team and for the Department of Interior National Burned Area Emergency Response Team.

Presentation Title:

USGS Data and Tools for Wildfire Preparedness, Response, and Recovery

Link to Slides:

https://drive.google.com/file/d/1s9IfSE7JZNrLMOUapA9Q4qUff490ER2D/view?usp=sharing

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Elizabeth Joyner

Community Coordinator

NASA Earth Science Data Systems (ESDS) Program

Elizabeth Joyner serves on the NASA Earth Science Data Systems (ESDS) Program -Web Strategy and Communications Team as the Community Coordinator and works across the program to promote the use of NASA data and resources with end users. Elizabeth is a seasoned science outreach specialist and brings more than 25 years of experience working with government agencies, non-profits, and education institutions. Elizabeth taught for over 10 years in both public and private school, as well as worked in informal settings such as Virginia Space Grant Consortium, SC Space Grant, SC Sea Grant Consortium, NOAA/NSF's Center for Ocean Sciences Education Excellence, and the American Geosciences Institute.

Presentation Title:

Harnessing NASA Earth Observation Data for Effective Disaster Response

Link to Slides:

https://drive.google.com/file/d/1eZX2egvoGtvUap_7xYQYkZ3bxpmjXVmv/view?usp=sharing

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Austin Dixon

WebEOC Administrator

LA Governor's Office of Homeland Security & Emergency Preparedness

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For the last nine years, Austin has served the public as WebEOC Administrator and Crisis Action Team member at the Louisiana Governor's Office of Homeland Security & Emergency Preparedness (GOHSEP). He develops, designs, and manages Critical Information Systems applications at GOHSEP, including WebEOC, Virtual Louisiana, ReadyOp, and GOHSEP's ArcGIS Online organization.

Presentation Title:

LA GOHSEP WebEOC and Geospatial Data Resources

Link to Slides:

https://drive.google.com/file/d/1p60FafGvWcfLYSlsUPjcQj69qso1mMQY/view?usp=sharing

Afternoon Sessions II

Jim Williams

Operations Officer

Louisiana Business Emergency Operations Center (LABEOC)

Jim Williams is the Operations Officer for the Louisiana Business Emergency Operations Center (LABEOC), which is located on the UL campus in Abdalla Hall. He has a Bachelor of Science Degree in Industrial Technology from the University of Louisiana at Lafayette and a Master's Degree in Business Administration from Louisiana State University at Shreveport. He is a PhD Candidate in Public Policy from Liberty University in Lynchburg, Virginia. Jim is a retired Army Lieutenant Colonel with 27 years of service. As a member of the Louisiana National Guard, he served in numerous disaster responses in the state, except those that occurred during his overseas deployment, specifically Hurricane Katrina and the BP oil spill. Jim now directs the public response to natural and manmade disasters for the private sector through the LABEOC.

Presentation Title:

LABEOC – Geospatial Data and the Decision-Making Process

Link to Slides:

https://drive.google.com/file/d/1Hy_dENwezYRniOdc5JstQcnZZsWVzbKN/view?usp=sharing

Brad Doucet

Director – DOTD Enterprise Support Services

Louisiana Department of Transportation and Development

Brad has over 25 years of experience providing technical, financial, and policy advice and support to a wide variety of customers. He is a veteran of the United States Navy, spent a brief period working as a Banking Analyst in the private sector, and has served in various IT and administrative roles at DOTD for over 20 years. Additionally, he serves as the Director of the Louisiana Statewide Topographic Mapping Program. Brad holds a B.S. in Management, Summa Cum Laude, and a Master of Public Administration, both from LSU.

Presentation Title:

LA DOTD Topo-Update and Geospatial Data Resources

Link to Slides:

https://drive.google.com/file/d/1hFQ_ceNUrzUT27ni5ZvVgxKFZEvcwRxu/view?usp=sharing

Jason Carr

Enterprise GIS Manager

Louisiana Department of Transportation and Development

Jason Carr is the Enterprise GIS Manager for LaDOTD. He provides the vision and overall management of the Enterprise GIS at LaDOTD as well as manages the GIS Unit within the Office of Planning, Data Collection and Management Systems Section (21). Since 2017, he has facilitated the modernization of LaDOTDs GIS including the development of a suite of web applications for emergency response during storm events impacting Louisiana. Prior to public service, he worked as a GIS consultant for 19 years and has over 26 years of GIS development and management expertise. He is a graduate of LSU with a Bachelor's of Science in Geography.

Presentation Title:

LA DOTD Topo-Update and Geospatial Data Resources

Link to Slides:

https://drive.google.com/file/d/1hFQ_ceNUrzUT27ni5ZvVgxKFZEvcwRxu/view?usp=sharing

Afternoon Sessions II

Dustin Smith

Location and Survey Section

Louisiana Department of Transportation and Development

Dustin Smith has been an employee of LADOTD since 2013, working in Location and Survey Section with the Remote Sensing Photogrammetric and LiDAR units. He is a Part 107 license holder who specializes in UAV collected Photogrammetric and Lidar data, the creation of 3d drainage maps, and the processing of Statewide Topographic Mapping Initiative LiDAR data. He is also working on the statewide application of UAV technology at the district level and with LTRC Project Research Committees for Tethered drone and Lidar case usage drainage studies.

Presentation Title:

Drones at LADOTD and their Potential After Disaster Strikes

Link to Slides:

https://drive.google.com/file/d/145PUwPnYgYcm90NJUL-ghmx_SbvuhGhc/view?usp=sharing

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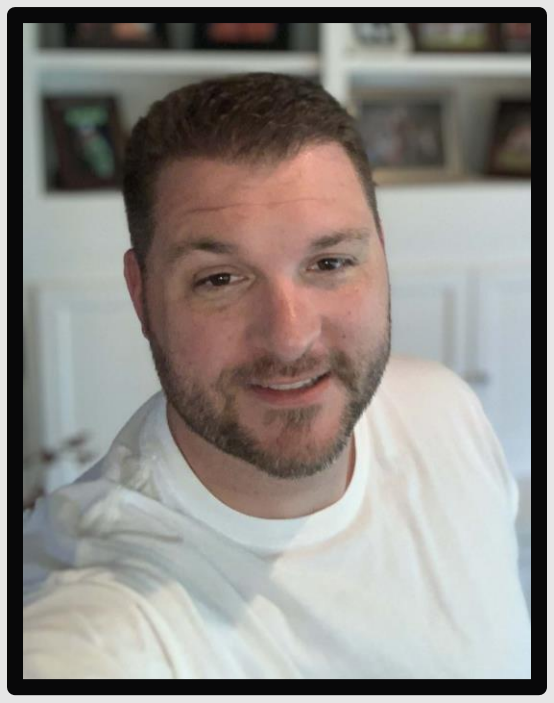

Jeremy Penton

GIS Specialist

Louisiana Department of Transportation and Development

Jeremy Penton is a GIS Specialist with the Louisiana DOTD in their Remote Sensing department. He is a graduate from LSU earning a Bachelor of Science in Industrial Engineering and Manufacturing Systems with a minor in Occupational Health and Safety. He is also a graduate from Penn State earning a Master's degree in Geographic Information Systems. He is an Engineer Intern with Louisiana's professional engineering and land surveying board. He is licensed with the FAA as a Part 107 sUAS drone pilot. He holds a certification as a GISP from the GIS Certification Institute. Jeremy has worked in the governmental, manufacturing, construction and environmental fields for over 20 years. During his professional career his main focus has been digital mapping and GIS.

Presentation Title:

Drones at LADOTD and their Potential After Disaster Strikes

Link to Slides:

https://drive.google.com/file/d/145PUwPnYgYcm90NJUL-ghmx_SbvuhGhc/view?usp=sharing

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Vendor Booth

Zena Pelletier

Team Lead Solution Engineer

ESRI

Zena Pelletier is a Team Lead Solution Engineer on the State & Local Government team out of the Esri San Antonio Regional Office. Zena leads a team of Solution Engineers that partner with state and local government customers to adopt and implement Esri's suite of solutions. Zena enjoys helping organizations develop and execute geospatial strategies, that align with their business objectives across their enterprise. Zena's prior experience to joining Esri over 8 years ago, includes 20+ years working for the Dept. of Defense, encompassing numerous projects, performing various geospatial data analysis processes for existing infrastructures at scale, all around the world.

Vendor Booth Videos:

The Science of Where - Unlock Data's Full Potential

Applying The Science of Where

The Esri Geospatial Cloud

Exploring The Science of Where

The Power of Smart Maps in Times of Crises

Data Links

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

National Weather Service

National Weather Service Data as OGC Web Services on the public Cloud: https://www.weather.gov/gis/cloudgiswebservices

National Water Prediction Service: https://water.noaa.gov/state/LA
https://www.weather.gov/owp/operations

NWS GIS Portal: https://www.weather.gov/gis/

National GIS Viewer:
https://viewer.weather.noaa.gov/general#layers=42904+40090+41783+42464+41782+41781+41609+41806+41818+41816&x=-116.0838&y=44.8895&z=5.7&panel=legend

Storm Prediction Center Severe Outlook: https://www.spc.noaa.gov/wcm/

Weather Prediction Center – Quantitative Precipitation Forecasts:
https://www.wpc.ncep.noaa.gov/#page=qpf
https://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml

Fire Weather Forecasts: https://www.weather.gov/fire/
https://www.spc.noaa.gov/ndfdfire/ndfdfire.html

GOES Satellite Hotspot notification dashboard:
https://cimss.ssec.wisc.edu/ngfs/alerts-dashboard/#/

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25th Annual *Hurricane Season Geospatial Data Mining Workshop* for Geospatial First Responders

Data Links

NASA

Harnessing NASA Earth Observation Data for Effective Disaster Response Zenodo Links: https://zenodo.org/records/11492132

NASA Disasters Mapping Portal: https://disasters-nasa.hub.arcgis.com/

NASA Disasters Program Overview: https://appliedsciences.nasa.gov/what-we-do/disasters

For Portal Support, requesting Disasters Program support, or to collaborate with the Disasters Program: Ronan.M.Lucey@nasa.gov or Garrett.W.Layne@nasa.gov

Join the NASA Disasters Program mailing list and receive our community newsletter and other important updates: https://lp.constantcontactpages.com/su/tn3iEZN

NASA Products for Hurricane Idalia 2023: https://maps.disasters.nasa.gov/arcgis/apps/MinimalGallery/index.html?appid=183f60fa5a98483abae3185e94e0f9de

NASA Products for Hurricane Ian 2022: https://maps.disasters.nasa.gov/arcgis/apps/MinimalGallery/index.html?appid=d91d8578158348ec9592dd4e6711bd76

Data Links

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for
Geospatial First Responders

FEMA

Resilience Analysis and Planning Tool (RAPT):
https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=90c0c996a5e242a79345cdbc5f758fc6

RAPT User Guide:
https://www.fema.gov/sites/default/files/documents/fema_rapt-user-guide-2023.pdf

RAPT Resource Center: https://rapt-fema.hub.arcgis.com/

RAPT Data Layers and Sources: https://rapt-fema.hub.arcgis.com/pages/data-sources

RAPT StoryMap:
https://experience.arcgis.com/experience/618796a76ff54ebe8bbdb677096d49ed/

Data Links

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

U.S. Geological Survey

USGS National Land Imaging Program:
https://pubs.usgs.gov/fs/2020/3034/fs20203034.pdf

USGS Landsat Next Factsheet:
https://pubs.usgs.gov/fs/2024/3005/fs20243005.pdf

General Contact Information for the Landsat Missions and EROS/Landsat Customer Service: www.usgs.gov/landsat or custserv@usgs.gov

YouTube video on how to access Landsat data: "Landsat: Products & Services from the USGS (2023)" - https://www.youtube.com/watch?v=3zs58yWswe8

Landsat Wildfire factsheet:
https://pubs.usgs.gov/fs/2016/3044/fs20163044_2.pdf

EROS: Keeping Watch Over Earth's Resources:
https://pubs.usgs.gov/fs/2021/3052/fs20213052.pdf

Landsat Burned Area Science Product:
https://pubs.usgs.gov/fs/2022/3083/fs20223083.pdf

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

Data Links

U.S. Geological Survey

Landsat Collection 2 U.S. Analysis Ready Data:
https://pubs.usgs.gov/fs/2023/3015/fs20233015.pdf

LANDFIRE YouTube Videos:
https://www.youtube.com/user/LANDFIREvideo

LANDFIRE: What is LANDFIRE factsheet:
https://pubs.usgs.gov/fs/2023/3044/fs20233044.pdf

LANDFIRE Data and Applications:
https://pubs.usgs.gov/fs/2022/3034/fs20223034.pdf

Landsat Dynamic Surface Water Extend Data Products:
https://pubs.usgs.gov/fs/2022/3084/fs20223084.pdf

Using Global Fiducials Library High-Resolution Imagery, Commercial Satellite Imagery, Landsat and Sentinel Satellite Imagery, and Aerial Photography to Monitor Change at East Timbalier Island, Louisiana, 1953-2021 (usgs.gov)

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

Data Links

U.S. Geological Survey

Landsat State Factsheets:

- *Texas: https://pubs.usgs.gov/fs/2021/3017/fs20213017.pdf*
- *Louisiana: https://pubs.usgs.gov/fs/2022/3059/fs20223059.pdf*
- *Mississippi: https://pubs.usgs.gov/fs/2022/3062/fs20223062.pdf*
- *Alabama: https://pubs.usgs.gov/fs/2022/3060/fs20223060.pdf*
- *Georgia: https://pubs.usgs.gov/fs/2022/3039/fs20223039.pdf*
- *Florida: https://pubs.usgs.gov/fs/2022/3019/fs20223019.pdf*

Dissolves organic carbon dynamics and fluxes in Mississippi-Atchafalaya deltaic system impacted by an extreme flood event and hurricanes: a multi-satellite approach using Sentinel-2/3 and Landsat-8/9 data: https://www.frontiersin.org/articles/10.3389/fmars.2023.1159367/full

Fire Danger Forecast: https://www.usgs.gov/fire-danger-forecast

Landfire: https://www.landfire.gov/

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

Data Links

U.S. Geological Survey

Interactive Viewer: https://dmsdata.cr.usgs.gov/lidar-monitoring/viewer/

Burn Severity Portal: https://burnseverity.cr.usgs.gov/products/baer

MTBS: https://www.mtbs.gov/

Burn Severity Portal: https://burnseverity.cr.usgs.gov/

QGIS Fire Mapping Tool: https://mtbs.gov/qgis-fire-mapping-tool

Data Links

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Hurricane Season Geospatial Data Mining Workshop
for
Geospatial First Responders

NOAA

Emergency Response Imagery: https://storms.ngs.noaa.gov/

Monitoring of Real-Time and Post-Storm Analysis of Hurricane Water Levels, Winds: ftp://tidepool.nos.noaa.gov/pub/outgoing/quicklook/2020/ (ftp is disabled in most web browsers; use an ftp client or file explorer)

Coastal Inundation Dashboard: https://tidesandcurrents.noaa.gov/inundationdb/

Extreme Water Levels during the 2021 Hurricane Season: https://storymaps.arcgis.com/stories/4711eeb6e79140358236e70ee3e79539

The Storm Reports from NOAA: 2022 Atlantic Hurricane Season: https://www.nhc.noaa.gov/data/tcr/

NOAA Navigation Response Teams: https://nauticalcharts.noaa.gov/customer-service/navigation-response.html

Submerged Pipeline Status Report Form: https://nauticalcharts.noaa.gov/charts/docs/charts-updates/Submerged-Pipeline.pdf

2022 Sea Level Rise Technical Report: https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html

Sea Level Trends: https://tidesandcurrents.noaa.gov/sltrends/

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

Data Links

LAGOHSEP

Virtual Louisiana: https://virtualla.la.gov/

WebEOC: https://gohsep.la.gov/webeoc/

Damage Reporting: https://damage.la.gov/

VLA/WebEOC and Other Training: https://stems.gohsep.la.gov/

For the training, feel free to use the main STEMS URL above or the URLs with the targeted search parameters below.

VLA Training:
https://stems.gohsep.la.gov/offerings?filters%5Bcode%5D=vla

WebEOC Training:
https://stems.gohsep.la.gov/offerings?filters%5Bcode%5D=webeoc

LABEOC

LABEOC: https://labeoc.org/

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25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

Data Links

LA Department of Transportation and Development

RESTService Links
Road Closures – Feature/Map Services, Bridges – Posted bridges Signal Status, Bridge Status, Basemap
OpenData – Boundaries, Census, GNIS, NHD, NWI, PLS
Roads & Highways Data (Open Data) – Federal Aid, Functional System (has Urban/Rural classification and codes),
Export Network Utility Services:
https://maps.dotd.la.gov/HurricaneDataMining/restserviceslinks.htm

OpenData Website – Transportation, Landcover, Boundaries, PLS, Hydrography, Structures, Elevation: https://data-ladotd.opendata.arcgis.com/

Imagery RESTServices: https://maps.dotd.la.gov/imagery/rest/services/

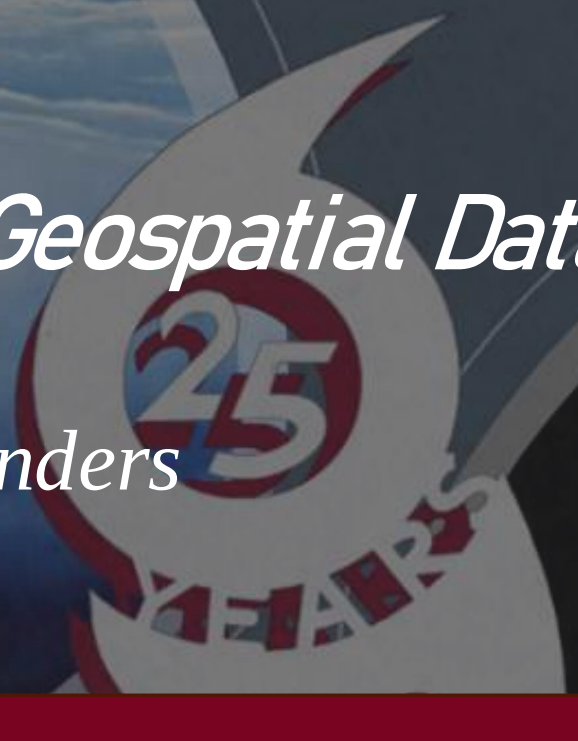
Roads & Highways Data: https://maps.dotd.la.gov/DataDictionary/Roads_N_Highways/metadata.Htm

Imagery Download App: https://maps.dotd.la.gov/portal/apps/webappviewer/index.html?id=ddad9f0bc5a247bc8316899a6d49cb3e

Traveler Information – 511: https://www.511la.org/

Data Links

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders



ESRI

ESRI Living Atlas of the World: https://livingatlas.arcgis.com/en/home/

Help Build the Living Atlas: https://livingatlas.arcgis.com/en/contributions/

Help Improve Esri Maps: https://communitymaps.arcgis.com/home/

Best Practices for Sharing to the Living Atlas: https://doc.arcgis.com/en/arcgis-online/reference/best-practices-share.htm

Esri Living Atlas Blog: https://www.esri.com/arcgis-blog/products/arcgis-online/announcements/reminder-%20raster-basemaps-services-moving-to-mature-support/

Update your Web Maps and Apps: https://www.esri.com/arcgis-blog/products/arcgis-online/mapping/update-%20basemap-in-web-maps/

Esri Disaster Response Program (DRP): https://www.esri.com/en-us/disaster-response/overview

Data Links

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

ESRI

Open Street Map Vector Basemaps: OSM Daylight Distribution:
https://daylightmap.org/

Explore Imagery at:
https://livingatlas.arcgis.com/wayback/#active=12428&mapCenter=-115.29850%2C36.06400%2C12

Explore Emergency Response ACS in the Living Atlas:
https://livingatlas.arcgis.com/en/browse/?q=emergency%20response%20acs#d=3&q=Emergency%20Response%20ACS

Emergency Management Operations Solution:
https://www.arcgis.com/apps/solutions/index.html?domain=Emergency%20Management&gallery=true&industry=Public%20Safety&solution=sirbbhpntndbikpeckrl9tbln65pr0tw&sortField=relevance&sortOrder=desc#home

Damage Assessment Solution:
https://www.arcgis.com/apps/solutions/index.html?domain=Emergency%20Management&gallery=true&industry=Public%20Safety&solution=706fdc1343a2400b90ade2dbd65d6cae&sortField=relevance&sortOrder=desc#home

Data Links

25th Annual Hurricane Season Geospatial Data Mining Workshop for Geospatial First Responders

ESRI

Esri Living Atlas Live Feeds: https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/real-time/putting-the-live-in-living-atlas-of-the-world/

NOAA CloudGIS Services: https://noaa.maps.arcgis.com/home/search.html?restrict=true&sortField=relevance&sortOrder=desc&searchTerm=CloudGIS&focus=layers#content

Imagery Content: https://www.esri.com/en-us/capabilities/imagery-remote-sensing/capabilities/content

Extend the Reach of your GIS: chrome-extension: https://www.esri.com/content/dam/esrisites/en-us/media/pdf/implementation-guides/extend-reach-arcgis-online.pdf

Essential Configurations for Highly Scalable ArcGIS Online Web Applications (Viral Applications): https://www.esri.com/arcgis-blog/products/arcgis-online/data-management/essential-configurations-for-highly-scalable-arcgis-online-web-applications-viral-applications/

Survey/Website

Now we ask that you do something for us!

Please take just a moment and help our future workshops by participating in our survey

Survey link:

https://forms.office.com/pages/responsepage.aspx?id=zrCzE3XNpEm_6goDsB_xq7KIX7qFHqpHnGm6rzt1ok9UN05LWTZVSlBMU1RCMVI2S01aTlBOVDAySi4u

Website link:

https://www.flickr.com/photos/raclafayette/albums/72177720317871670/

Thank you for attending the 25th Annual Hurricane/Wildfire Geospatial Data Mining Workshop for Disaster Response

A Note from the Coordination Team:

On behalf of the 25th Anniversary team hosting this year's workshop, I want to thank all our speakers and those participating in the event. Without each of you, this workshop and the successful response effort that is put forth each year during disaster events would not be possible.
GeoSpatial First Responders are the silent heroes battling on the front lines for data acquisition, development, product deployment, and analysis for each disaster event.
Because of all your combined talent, our response to these disasters gets quicker, more effective, more productive, and more connected as we move forward. Keep up the great work, keep moving forward and we will be ready for the next disaster event. After all, it's not whether we will get another event, it is just where will it occur! An informed network of geospatial first responders spanning the region – across the states, the Gulf, the Caribbean, and all surrounding areas will always be our best defense. Thank you again and we look forward to "seeing" each of you next year, whether face-to-face or in the virtual world. Until then, like you, we will await the next "Events" arrival.

All the best,
Rodney B. Yantis

NOTE: The 26th Annual *Hurricane/Wildfire Disaster Geospatial Data Mining workshop, commemorating the 20-year anniversary of Hurricanes Katrina and Rita, will be held June 5, 2025. Mark your calendars now!*

REGIONAL APPLICATION CENTER

AMERICA VIEW℠

LOUISIANA VIEW.ORG

USGS science for a changing world

Meeting at LITE Center

2024 Hurricane/Wildfire Disaster Geospatial Data Mining Workshop

June 6, 2024

Welcome, and thank you for participating! A few reminders for the session today:

- Audio can be connected through computer or phone (please enter participant if connecting by phone)
- Presentations are being recorded
- Slides will be made available
- Online Participants will remain on mute
- Please ask questions using Chat feature
- Housekeeping

Sign In/Check In

Hurricane/Wildfire Disaster
Geospatial Data Mining Workshop
NASA/UL Lafayette Regional Application Center
June 6, 2024

*Start time is 9:00 am CDT / 14:00 UTC

9:00 am	Welcome and Introductions Rodney Yantis and Courtney Poirier Chicola, PhD, NASA/UL Lafayette RAC Michelle Fischer, U.S. Geological Survey Rusti Liner, River Parishes Community College
9:15 am	GIS and NWS Overview, GIS and Fire Weather, National Water Prediction Service Tyler Stanfield, Marti Calhoun, Jonathan Brazzell, NWS
10:15 am	Break
10:30 am	NASA's Disasters Program - Ronan Lucey, Alex Melancon, UAH – NASA MSFC
10:55 am	New Tool. Who Dis? Updated Resilience Analysis and Planning Tool for Emergency Managers Benjamin Rance, FEMA
11:25 am	USGS National Land Imaging "Landsat Next" Update - Timothy Newman, USGS NLI
11:50 am	Lunch – provided by Bottomland Geosciences, LLC and the LouisianaView Program
1:00 pm	NOAA Coastal Landscape Changes and Storms...Issues of Sea Level Rise and Vulnerabilities Tim Osborn
1:25 pm	The International Charter Space and Major Disasters – Overview and Wildfire Response Mike Budde, EROS USGS
1:50 pm	USGS EROS Emergency Operations Overview, HDDS/CMT, Hazards Data Distribution System Dean Mierau, Brenda Ellis
2:15pm	USGS Data and Tools for Wildfire Preparedness Response and Recovery - Kurtis Nelson
2:40 pm	Break
2:55 pm	Harnessing NASA Earth Observation Data for Effective Disaster Response - Elizabeth Joyner, Community Coordinator, NASA's Earth Science Data Systems
3:10 pm	LA GOHSEP WebEOC and Geospatial Data Resources Austin Dixon, LA Governor's Office of Homeland Security and Emergency Preparedness
3:35 pm	LABEOC – Geospatial Data and the Decision-Making Process - Jim Williams
4:00 pm	LA DOTD Topo-Update and Geospatial Data Resources - Brad Doucet, Jason Carr
4:25 pm	Drones at LA DOTD and their Potential after Disaster Strikes - Dustin Smith, Jeremy Penton
4:50 pm	Wrap Up / Visit Vendor Booths

ESRI - Zena Pelletier / SGC Survey– Samantha Trowbridge / Bottomland Geosciences, LLC – Jacob Chicola

Breakfast/Break

Breaking News!

KATC 3

NEWS 15

Mangeons le déjeuner à RAC

(Eating lunch at the RAC)

Legislative Staff

We would like to extend our deepest gratitude for your attendance and participation in our disaster workshop celebrating our 25th anniversary. Your presence and contributions significantly enriched the event, and we are thankful for your continued support and commitment to disaster preparedness and response in the state of Louisiana.

Pictured from left to right: Tyrone Glover (Higgins), Sarah Dake (Kennedy), Rodney Yantis (RAC), Courtney Poirier Chicola (RAC), and Lee Turner (Cassidy)

We look forward to continuing our collaborative efforts in enhancing our community's resilience and safety. Thank you once again for joining us on this special occasion representing the offices of Senators Cassidy and Kennedy, and Congressman Higgins.

Spotlights

Spotlights

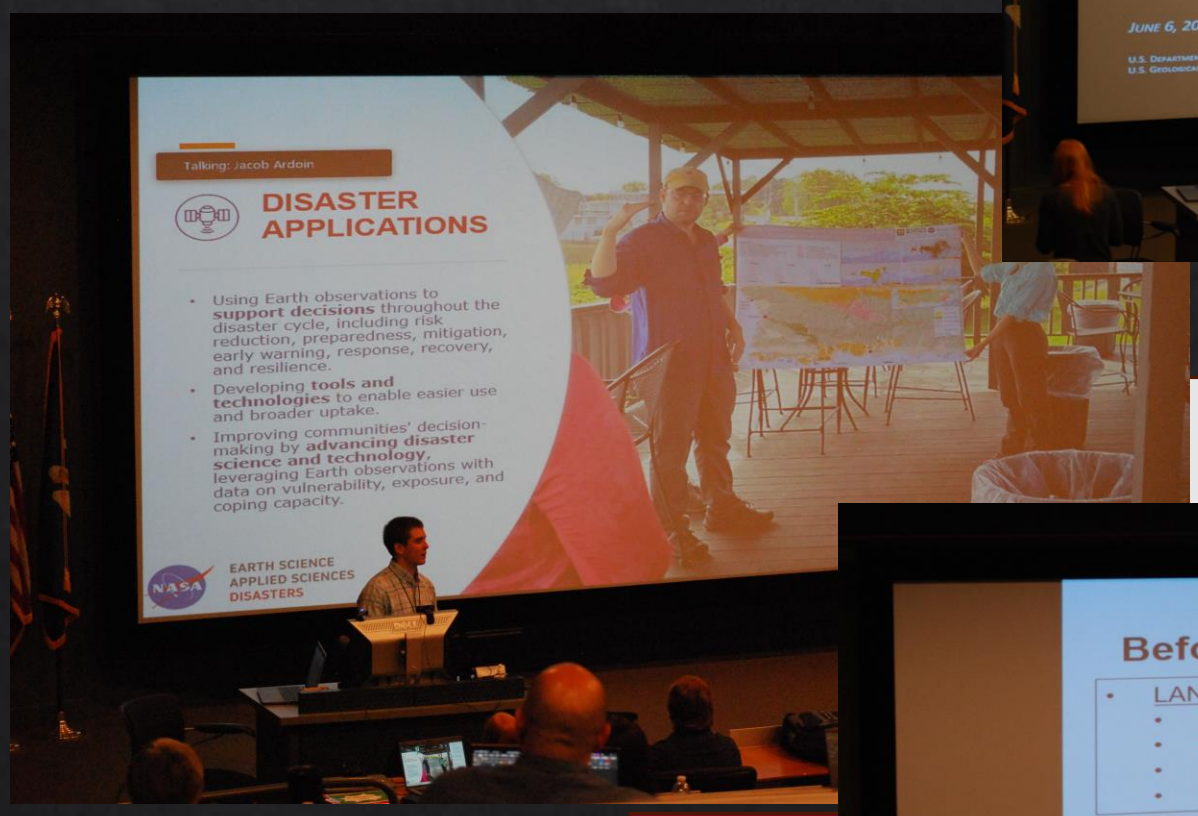

Geospatial Disaster Workshop
25
25th Anniversary


State Highway
Burkeville
esri
NOAA
USGS
science for a changing world
2 mi
Resources
Type here to search

Spotlights

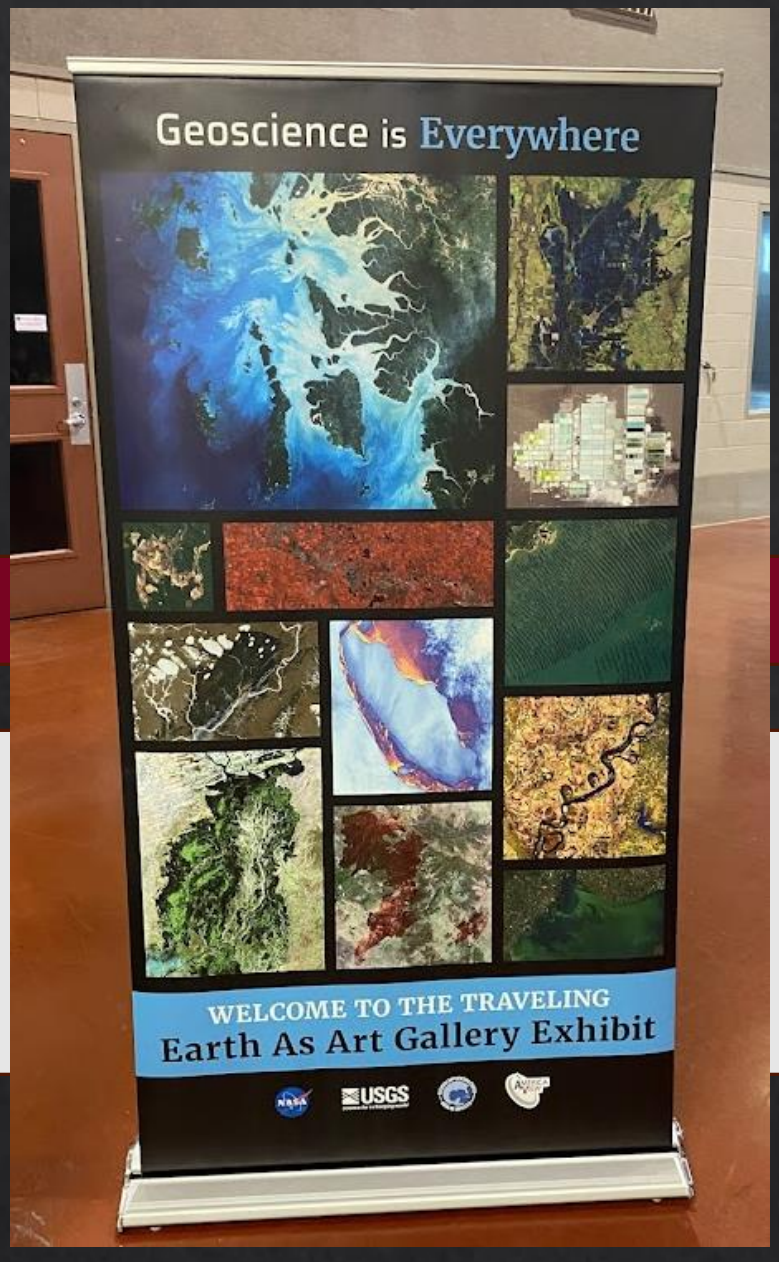

Mute
Stop Video
Security
Participants
Chat
New share
Pause Share
Annotate
Remote control
Apps
More
You are screen sharing
Stop share
Talking: Jacob Ardoin
www.weather.gov/owp/operations or https://water.noaa.gov/state/LA

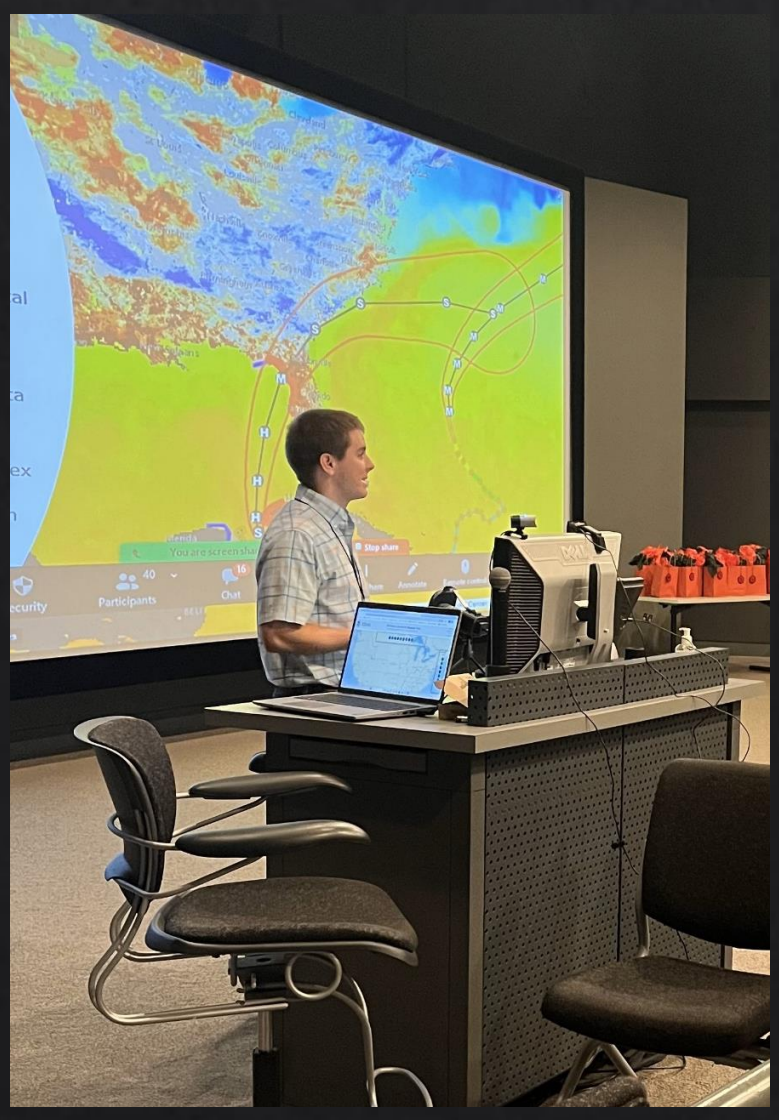

USGS
science for a changing world
Talking: tnewman
Hurricane/Wildfire Disaster
Geospatial Data Mining Workshop
AmericaView/LouisianaView
Tim Newman
National Land Imaging Program Coordinator
Zhuoting Wu
NLI Earth Observation Applications Coordinator
June 6, 2024
U.S. Department of the Interior
U.S. Geological Survey


Talking: Jacob Ardoin
DISASTER APPLICATIONS
Using Earth observations to support decisions throughout the disaster cycle, including risk reduction, preparedness, mitigation, early warning, response, recovery, and resilience.
Developing tools and technologies to enable easier use and broader uptake.
Improving communities' decision-making by advancing disaster science and technology, leveraging Earth observations with data on vulnerability, exposure, and coping capacity.
NASA
EARTH SCIENCE
APPLIED SCIENCES
DISASTERS


Talking: Jacob Ardoin
Before/During a Fire
https://www.landfire.gov
LANDFIRE
46 total products
30m resolution
50 states + insular areas
Annual updates
LAND
FIRE
LANDFIRE
USGS

Spotlights


Geoscience is Everywhere
WELCOME TO THE TRAVELING
Earth As Art Gallery Exhibit
NASA
USGS


Participants
Chat
Stop share

Spotlights


EXIT


esri
THE SCIENCE OF WHERE
Real-Time Public Safe
Solutions and Techn
Understand, Plan, and Act
with Data-Driven Insight

Spotlights