TEN YEARS OF GULFPORT GIS

Survival and Evolution since Hurricane Katrina

GIS Division

Mike Miller, Senior Analyst Brian Deming, GIS Analyst Emma Strong, GIS Analyst



SUMMARY

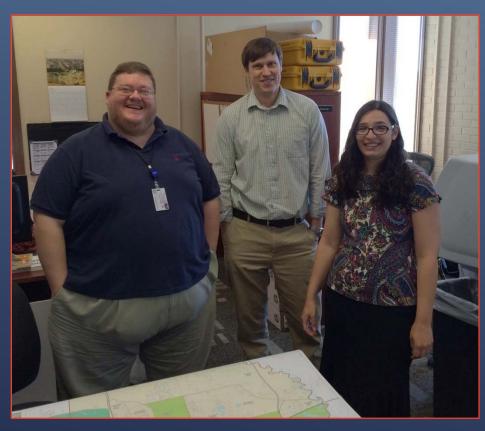
- People Matter: Changes in Personnel
- ❖ The Office: Patience is a Virtue
- Policy and Methodology: Adaptation at its Finest
- Hardware and Software: Keeping up with the Joneses
- Feature Classes: Digitize ALL the Things!
- Maps on the Web: Evolution of Public Access
- Preparing for the Future: All of This has Happened Before, and All of This will Happen Again

PEOPLE MATTER: CHANGES IN PERSONNEL

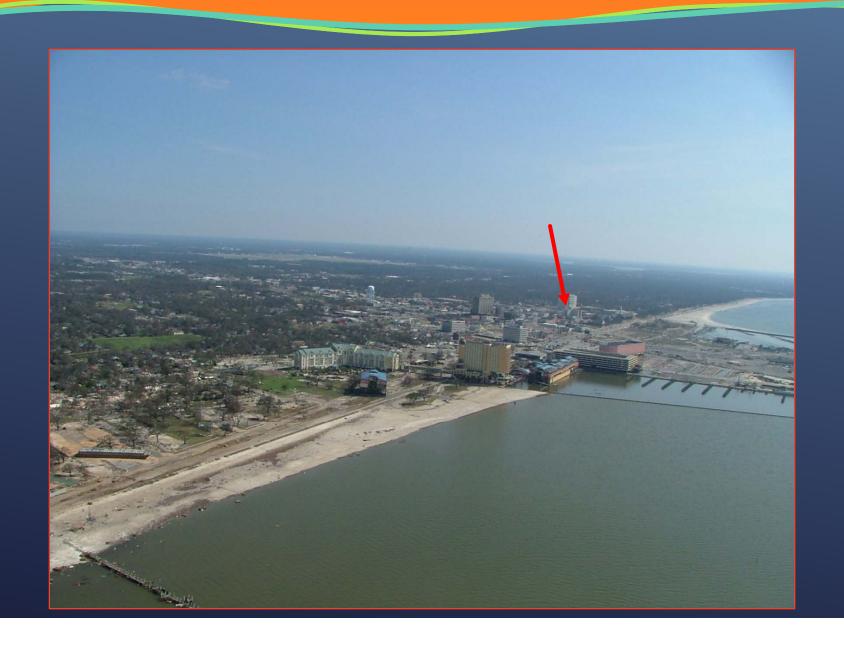
- Resigned because of the Severity of the Storm
 - Mark Steger, Tyrus Cohan
- Stayed despite the Storm
 - Mike Miller
- Came to Stay
 - Brian Deming
- Came and Went
 - David Hansen
 - Zane Davis
 - Karen Clark
 - Cory Long
- Newest Addition
 - Emma Strong



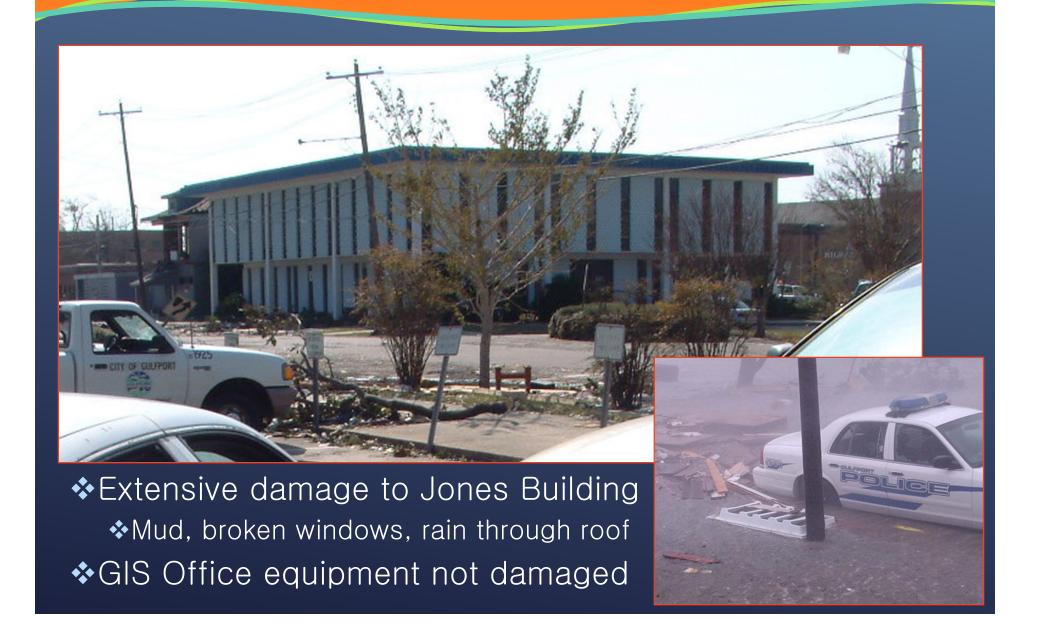
* 729 in 2005, 670 in 2010, 601 currently, 10.2% reduction last 5 years



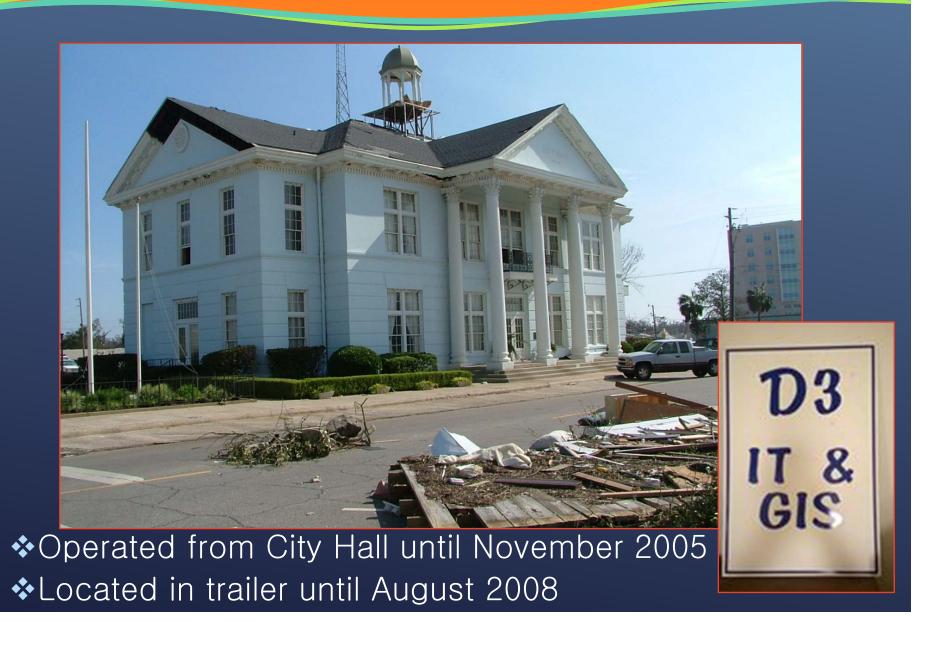
THE OFFICE: PATIENCE IS A VIRTUE



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POLICY AND METHODOLOGY: ADAPTATION AT ITS FINEST

- City adopted digital plat submission policy in 2003
 - County adopted similar digital plat submission policy in 2004
 - In progress of being updated to current needs
 - Legislation continually brought in front of state senate that brings issue of digital plat submission policy to a larger forum
- Statewide building code adopted in 2006
 - None previously
 - Required directly because of Katrina in order to receive funding
- Smart code introduced to three areas of Gulfport
 - Two coastal regions being cleaned and rebuilt
 - One inland new subdivision

POLICY AND METHODOLOGY: ADAPTATION AT ITS FINEST

- Harrison County GIS Coalition started in 2013 in order to increase collaboration and cooperation
 - Mike Miller voting member
 - Reaching out to other departments who use GIS to spread word
- Mississippi Association for Spatial Technologies (MAST) www.mastgis.org
 - Originally formed in 2003, dwindled due to Katrina
 - First officers Roger Colwell, Mitch Tinsley, Jeannie Allen
 - Meetings held again in 2006, incorporated in 2008
 - First annual Mississippi Geospatial Conference in 2013
 - Currently around 80 active members from diverse fields
 - Mike Miller: Previous Secretary, current Board Member
 - Emma Strong: Current Secretary/Treasurer

HARDWARE AND SOFTWARE: KEEPING UP WITH THE JONESES

- Cityworks: Public Works began use in 2002, updated periodically and fully integrated with City's GIS
- Computers and servers added and upgraded
 - Current: 16 GB of RAM, Core i7 3.4 GHz processor, Windows 7
 - New server room in new Police HQ
- Esri Software upgraded
 - Currently on Arc Desktop 10.2.2
 - First city in Mississippi with ELA license agreement, 2007
 - Currently 52 users for ArcGIS Online Organization
- GPS devices, Trimble
 - Old units, using beacon belts, used to assess the damage
 - Upgraded to 2005 and later 2008 versions
 - Currently awaiting another upgrade, with lazers!

HARDWARE AND SOFTWARE: KEEPING UP WITH THE JONESES

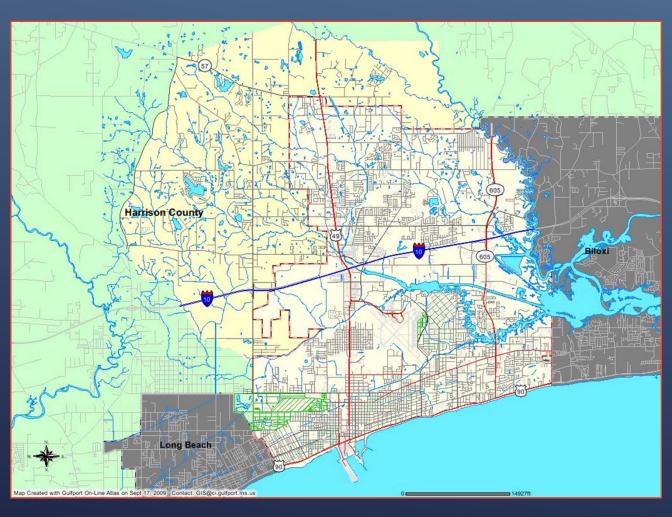


Police Department: Began using Crimeview in 2006

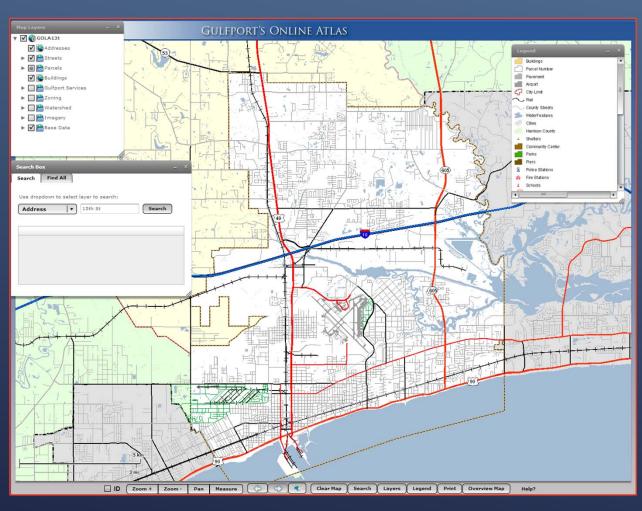
FEATURE CLASSES: DIGITIZE ALL THE THINGS!

- Advisory changes to FEMA DFIRM rolled out in 2008, adopted in 2009. Included LOMAs and BFE changes
- Inventory of city-owned buildings and properties created
 - Aid in damage assessment
 - Aid legal department in maintaining assets
- New LiDAR data acquired
 - 2-foot contours
 - Hillshade
- Sidewalks digitized from 2012 imagery to add to impervious surfaces and begin pedestrian network analyses
- Building footprints updated from 2012 imagery
 - Previous from 2001
 - Pushing for workflow for dynamic updates

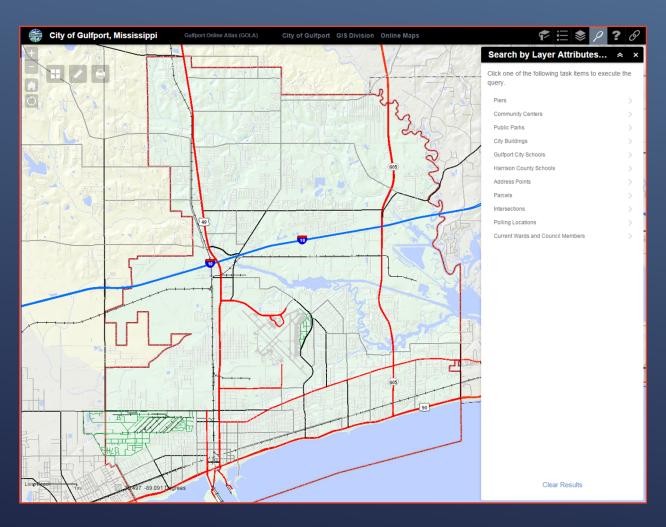




HTML based IMS, approximately 2006 to 2008

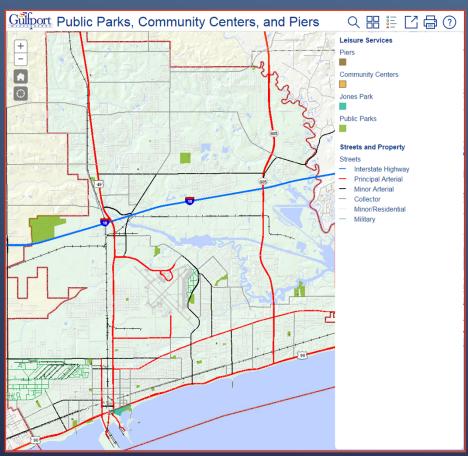


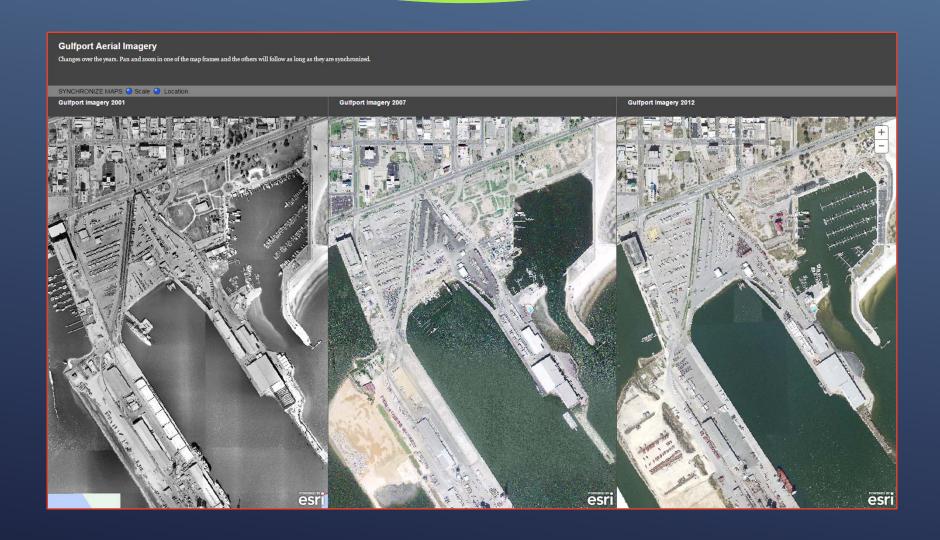
Flex Based, approximately 2010 to 2013

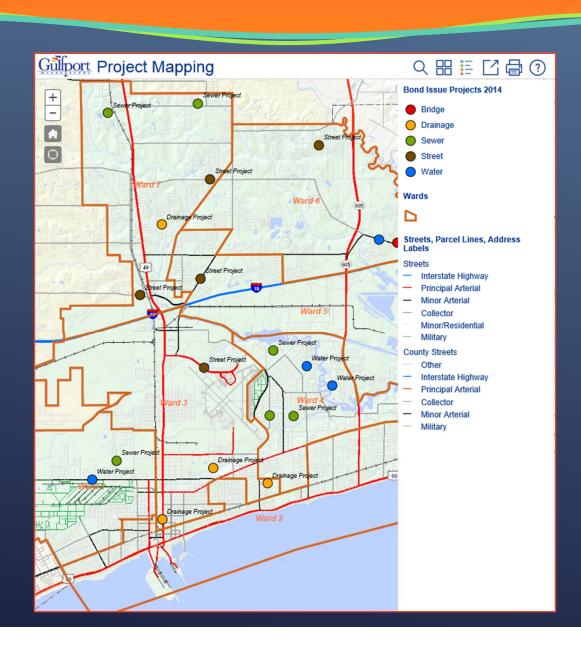


Current: ArcGIS Online http://gulfport-ms.gov/GIS-disclaimer.shtml









PREPARING FOR THE FUTURE: ALL OF THIS HAS HAPPENED BEFORE, AND ALL OF THIS WILL HAPPEN AGAIN

The City as a whole

- Gulfport Municipal Marina certified Clean and Resilient Marina, initiative of Gulf of Mexico Alliance (GOMA)
- Training, preparations, renovations, mitigation
 - FEMA NIMS training
 - Mitigation of repetitive loss properties

❖ The GIS Office

- Maintaining data to the best of our abilities
- Assisting other departments with updating and adding data, creating necessary maps, creating web mapping applications
- In early stages of using tailored web apps and Esri Collector with various departments
- Pushing for more effective use of enterprise GIS

ACKNOWLEDGEMENTS AND REFERENCES

- Thank you to Mike Miller, Brian Deming, Scott Gregory, Mike Edwards, Cheryl Millender, Cory Long from City of Gulfport
- Thank you to Paul Barnes, Jim Steil, Eric Nolan, Karen Clark from MAST
- Pictures from City damage assessments, screen shots of City applications
- Cityworks http://www.cityworks.com/2010/07/recovering-from-katrina-cityworks-helps-gulfport-mississippi-weather-the-storm/
- Gulf of Mexico Alliance (GOMA) <u>www.gulfofmexicoalliance.org</u>

THANK YOU

QUESTIONS AND COMMENTS WELCOME

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City of Gulfport, Mississippi