Tip Sheet: Disaster Coverage Beyond Parachuting

October 12, 2019
SEJ 29th Annual Conference
Fort Collins, CO

Reporting Resources

1) National Levee Database

This was set up by the Army Corps of Engineers after Hurricane Katrina at the request of Congress to track the status of all federal levees in the U.S. These are now required to be inspected for design issues every 5 years, and to have commitments from local sponsors to back required improvements within one year of the inspections, or risk losing flood insurance.

The database now also includes local non-federal levees. Also includes new rankings of levees for risk, which take into account their designs, the communities they protect and the economic value they protect. For instance, despite New Orleans area levees being rebuilt to new, modern Corps standards after Katrina that are supposed to provide protection from hurricane surges with a 1 percent chance of occurring (the so-called 100-year storm), the levee system is ranked "High Risk" because of the combined population and economic value that would be at risk if a larger storm were to overtop or break through the levee system. Katrina's surge was variously a 150-year to 250-year event, depending on where around the system you looked.

https://www.usace.army.mil/Missions/Civil-Works/Levee-Safety-Program/National-Levee-Database/

National Levee Database | GeoSpatial - ARCGIS [NOTE: may or may not work]

https://geospatial-usace.opendata.arcgis.com/datasets/1019535ea7a848939dc5b5d54aca19a9

Aug 22, 2019 - The **National Levee** Database is a dynamic, searchable inventory of information about **levees**, ... It includes detailed information about the **levees** in the **Levee** Safety Program, as well as a ... Advanced Search **Dashboard** Map.

2) Storm Surge info:

In the aftermath of Katrina, a forensic review of the potential for storm surge in the New Orleans area helped redefine the kinds of hurricanes for which the New Orleans levees – and other levees nationwide – were designed. Included were assumptions that Gulf waters would rise over the 50-year life of the new levees because of sea level rise increased by human-caused global warming, and that hurricanes would become less frequent but more powerful, as much as 15 percent stronger by the end of 50 years. Those factors and the actuality of what surge did during Katrina, Rita and later storms pushed the National Hurricane Center to develop separate watches and warnings for storm surges, and to develop color-coded maps showing potential height of water above ground level, all used in the package of watches and warnings issued as hurricanes approach shorelines.

Today, the NHC and the Hurricane Research Division are also reviewing all their warnings to deal with a new problem: dramatic increases in the accuracy of location forecasting for the eye of hurricanes has resulted in a narrowing of those risk bubbles used in the maps. But the effects of hurricanes actually extend well beyond the edges of the bubbles, and the effects can also trail the movement of the eye ashore by hours or even days. And especially in Florida, forecasters are concerned that the public focus on the skinny line of the track of the eye increases danger because an error east or west of only 20 miles can result in areas either missing or getting the major impacts of a storm's stronger right quadrant.

Storm Surge Overview - National Hurricane Center

https://www.nhc.noaa.gov/surge/

Storm surge flooding of 7-9 ft produced considerable **storm surge**-related damage near St. Marks, Florida, well to the east of the landfall location. The damage associated with Dennis in the United States is estimated at $2.23 billion.

National Storm Surge Hazard Maps - Version 2

https://www.nhc.noaa.gov/nationalsurge/

This **national** depiction of **storm surge** flooding vulnerability helps people living in hurricane-prone ... Thumbnail of Texas to Maine **Storm Surge Hazard Map** ...
Introduction to the Hazard ... · Technical Description

Storm Surge Inundation and Hurricane Strike Frequency Map ...

https://toolkit.climate.gov/tool/storm-surge-inundation-and-hurricane-strike-frequency-map

Aug 12, 2019 - The **map** illustrates current worst-case coastal **storm surge** or inundation scenarios as well as hurricane strike frequency. ... Sea, Lake, and Overland Surge from Hurricanes (SLOSH) models by the **National** ... Explore **Hazards**.

CERA - Coastal Emergency Risks Assessment

https://cera.coastalrisk.live/

... surge elevation, wave heights, wave periods, and wind speed obtained from simulations of daily weather conditions from the **ADCIRC** coastal circulation model.
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3) Flint Drinking Water

Residual risk certainly played a major role in the Flint lead in water crisis. The decision to change the source of the public water supply to a more acidic water source should have been known well in advance, and someone – including media in town – should have been asking questions about whether it would affect the city's water pipe system, in light of a similar incident several years before in Washington, D.C. Not to mention the amount of lead pipes in both the city-owned distribution system and the connections from distribution to homes.

Flint Drinking Water Response | US EPA

https://www.epa.gov/flint

Jun 3, 2019 - **Flint's** system currently meets regulatory criteria for lead and copper. EPA will continue to ... EPA Awards $100 Million to Michigan for **Flint Water** Infrastructure Upgrades. EPA has ... (wilson.jennifera@epa.**gov**) 312-353-3115.
Flint Drinking Water Documents · EPA Awards $100 Million · Contact Us
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Flint Water - Taking Action on Flint Water - State of Michigan

https://www.michigan.gov/flintwater/

For more information on the filter study, visit www.epa.**gov/flint**/filter-study. ... The latest news updates regarding the **Flint water crisis** are available to keep the ...
Flint Water - News Updates · (DEQ) Reports to EPA · Flint Water - EGLE (DEQ)

Flint Water Crisis | Casper | NCEH | CDC

https://www.cdc.gov/nceh/hsb/disaster/casper/pdf-html/flint_water_crisis_pdf.html

Jan 26, 2018 - The switch caused **water** distribution pipes to corrode and leach lead and other contaminants into municipal drinking **water**. ... The CASPER report on the **Flint Water Crisis** is available online at https://www.cdc.**gov**/nceh/hsb/ ...

The Flint Water Crisis: A Coordinated Public Health ... - NCBI

https://www.ncbi.nlm.nih.gov/pubmed/30507775

by PZ Ruckart - 2019 - Cited by 3 - Related articles
Jan 1, 2019 - The **Flint water crisis** highlights the need for improved risk .... on December 14, 2015, followed by the **governor** of Michigan declaring a state of ...
Abstract · Context · Discussion · Acknowledgments

Commentary & Primary Sources - The Flint Water Crisis: A ...

https://libguides.umflint.edu/watercrisis/commentary

Learn about the ***Flint water crisis*** and the surrounding issues in this special, ... 274 pages of redacted emails released by ***Governor*** Synder on 1/20/2016.

The Virginia Tech Research Team:

http://flintwaterstudy.org/about-page/about-us/

We are an independent research team from **Virginia Tech** (**VT**) volunteering our ... Krista Bryson), and Dr. Andy Whelton's research during the WV **water crisis**.

Fighting for Flint: A Virginia Tech team exposes lead ...

https://www.vtmag.vt.edu/spring16/fighting-for-flint.html

Apr 21, 2016 - City testing found high levels of lead in her home's **water**, but she couldn't .... During the **Flint crisis**, the emergency manager position changed ...

4) Drainage/flash flooding

Climate change is being linked to more intense rainfall events in many locations around the

nation. Those rainfall events – combined with the storm surge risks in coastal areas – should be raising significant questions about the assumptions that underlie the nation's National Flood Insurance Program: Why are the base flood elevations based on a snapshot in time of potential water levels, rather than a forward looking estimate of potential future water heights? Why is it based on a 1 percent chance of flooding, the so-called 100-year storm, when there's a 26 percent chance that that event will occur within the life of a 30-year mortgage? Should the proper standard by 0.2 percent, or 500-year? Or 0.1 percent, 1,000-year? And why should the Army Corps of Engineers continue to be immune from liability for building improperly designed or built water protection systems?

There are efforts well underway to pair a major nationwide expansion of streamflow data with modern storm surge modeling that could provide more information about risk, and, more important, more accurate and more timely warnings of flash flooding. But some issues remain, including a lack of action on updating local adoption of International Code Council standards for base flood elevations and wind risk requirements for residential and commercial buildings, and an update of the ICC standards to plug holes where recent storms have shown that increased wind speeds, probably affected by climate change, are already leaving some locations' wind building standards outdated.

Flood Zones | FEMA.gov

https://www.fema.gov/flood-zones

Mar 18, 2019 - The purpose of this page is to define **flood** zones, a commonly used term in **floodplain** management.

Floods and Recurrence Intervals - Usgs

https://www.usgs.gov/special-topic/water-science-school/science/floods-and-recurrence-intervals

In the 1960's, the United States **government** decided to use the 1-percent annual ... The "**500-year flood**" corresponds to an AEP of 0.2-percent, which means a ...

FAQs - Harris County Flood Education Mapping Tool

https://www.harriscountyfemt.org/FAQs.aspx

What are my chances of flooding in a 0.2 percent (**500-year**) **floodplain**? ... **flood** insurance, visit the National **Flood** Insurance Program at www.floodsmart.**gov**.

Floodplains and Floodways · Floodplain Status ... · Am I required to have flood ...

USGS Current Water Data for the Nation

https://waterdata.usgs.gov/nwis/rt

USGS Current Water **Data** for the Nation. --- Predefined displays ... Streamflow Conditions. Stream **gage levels** in The United States, relative to 30 year average.

Pennsylvania · Missouri · North Carolina · Virginia

USGS Flood Inundation

https://www.usgs.gov/mission-areas/water-resources/science/flood-inundation-mapping-fim-program

Feb 10, 2016 - The USGS Flood Inundation Mapping (FIM) program focuses on ... The first step is to identify the location where the **flood modeling** will be ...

Real-time Flood Modeling Application - USEHAZUS

https://www.usehazus.com/docs/real-time-flood-modeling-application.pdf

Real-time **Flood Modeling**. Application. Central HAZUS Users Group Seminar. Scott Morlock. Deputy Director. USGS Indiana Water. Science Center.

5) BP Deepwater Horizon

As we were focusing on assuring the Hurricane Katrina damaged levees were being properly rebuilt, we were not looking at the residual risk posed by oil and gas exploration in our own back yard, the Gulf of Mexico. The BP Deepwater Horizon accident and spill changed that, forcing our paper and others to become forensic investigators into why the well failed and why nobody in government was aware that their rules were unable to stop the accident from happening. Today, with more downsizing of local media resources, we're likely missing the boat again, as the Trump administration rolls back offshore work rules that were only just approved at the end of the Obama administration.

Deepwater Horizon: A Major Lesson in Risk Analysis

https://edmdigest.com/news/deepwater-horizon-lesson-risk-analysis/

The **Risk** of Human Error In the oil industry, fire is always a **risk** because of the many volatile fuels and gases involved in the drilling process. There are very specific measures that must be taken before a rig like the **Deepwater Horizon** can be temporarily abandoned.

A Targeted Health Risk Assessment Following the Deepwater ...

https://ehp.niehs.nih.gov/doi/10.1289/ehp.1408684

by MJ Wilson - 2014 - Cited by 35 - Related articles

Feb 1, 2015 - Background: The ***Deepwater Horizon*** oil spill of 2010 prompted concern about ... Organoleptic testing identified, through scent, any ***residual*** ...

The Deepwater Horizon Oil Spill Coast Guard Cohort study.

https://oem.bmj.com/content/oemed/75/3/165.full.pdf

by J Rusiecki - 2018 - Cited by 6 - Related articles

Sep 12, 2017 - The ***Deepwater Horizon*** Oil Spill ***Coast Guard*** Cohort study. ... (2)***Coast Guard***, Directorate of ***Health***, Safety and Work Life, Washington, USA.

Initial Response to the Spill | Restore The Gulf

https://www.restorethegulf.gov/history/initial-response-spill

All oil spill response information has been moved under this **Coast Guard** ... Oil spill resources for **health** clinicians working in the gulf region · **Coast Guard** ... Fish, Shellfish and the Gulf Oil Spill · Five Years Later, **Deepwater Horizon** Oil Spill ...

BP Deepwater Horizon Oil Spill - Presidential Commission report

https://www.govinfo.gov/content/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf

Commission on the BP ***Deepwater Horizon*** Oil Spill and Offshore Drilling: an ..... On April 20, the ***inherent risks*** of decades of inadequate regulation, insufficient ...

Gulf Coast Ecosystem Restoration Council/Restore Act

https://www.restorethegulf.gov/

Subscribe to **RESTORE** EBlasts ... Gulf Coast Ecosystem **Restoration** Council ... use of Gulf **restoration** funds resulting from the **Deepwater Horizon** oil spill.

About the RESTORE Act · About Us · The Council · Council Staff

NOAA Gulf Spill Restoration |

https://www.gulfspillrestoration.noaa.gov

Explore our interactive map to see details on **restoration** projects. View Project ... news icon. Get the latest news updates from the **Deepwater Horizon** Trustees.

Mississippi Restoration Area · Trustees · How We Restore · Damage Assessment

The Deepwater Horizon Oil Spill - Gulf of Mexico Restoration ...

https://www.doi.gov/deepwaterhorizon

The April 2010 **Deepwater Horizon** (DWH) oil spill in the Gulf of Mexico resulted in the ... Damage Assessment (DWH NRDA) and **RESTORE** Act implementation.

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Louisiana Coastal Protection and Restoration Authority - Deepwater Horizon

https://coastal.la.gov/deepwater-horizon-oil-spill-content/oil-spill-overview/

Deepwater Horizon Oil Spill Overview | **Deepwater Horizon** Oil Spill **Restoration** As oil spill injuries are determined and penalties are assessed, multiple ...

LA DWH Oil Spill NRDA and Restoration

https://la-dwh.com/

Louisiana **Deepwater Horizon** Oil Spill. On April 20, 2010, the **Deepwater Horizon** oil rig exploded and subsequently sank ...

6) Hazards / disasters

Hazards and Disasters Resources and Reports

https://hazards.colorado.edu/resources/web-resources

A listing of various resources, toolkits, websites, agency reports, especially compelling research, and many more sources of information on every aspect of hazards and disasters.

Social Science Extreme Events Research Network Interactive Map
https://converge.colorado.edu/research-networks/sseer/researchers-map
An interactive map that lists (to date) about 900 behavioral science researchers working in hazards and disasters. Entries are geographically based and currently searchable by discipline, location, and expertise.

CONVERGE Training Modules*
https://converge.colorado.edu/training-modules
Free online training modules that cover a multitude of hazards and disasters topics. Although, created for social scientists who do "quick response" research (in which researchers enter the field on an academically quick timeline), these can be a huge help to journalists who want to background themselves on specialized disaster topics such as social vulnerability in disasters, disaster mental health, and how scientists approach communicating disaster research.

*CONVERGE resources for linking social and interdisciplinary scientists with journalists will be forthcoming.

7) Reporting tips:

- Emphasis on connecting with locals: perspective, context, guidance
- Know local context: History, social, economic, and political conditions
- Spread out: Clustering around the same story is problematic, both for the public we're trying to inform and the victims. It has consequences on decision making and policy.
- Do aftermath stories: The full effects are not fully felt or understood until months/years afterwards

Be sensitive: Lots of resources out there on how to do this. Some examples below:

- DART's guide on Tragedies and Journalists https://dartcenter.org/content/tragedies-journalists-6?section=all
- Research on understanding trauma https://www.istss.org/education-research/journal-of-traumatic-stress/virtual-issue-hurricane-related-trauma.aspx

Experts' views:

- Irwin Redlener on media's role https://dartcenter.org/content/uncharted-territory
- Interesting perspective on focusing on a single victim https://qz.com/1024303/empathy-makes-us-immoral-says-a-yale-psychologist/
- Dart's resources for covering hurricanes includes many of these + prepardeness and self-care guidelines https://dartcenter.org/resources/covering-hurricanes-resources-journalists)

Figuring out the death toll after a hurricane:

- This story by Ana Campoy has a lot of information on how deaths are counted after a disaster, and a little on how researchers approach the aftermath. Also some groups doing interesting work on these issues. https://qz.com/1288679/a-new-survey-of-puerto-rico-death-toll-from-hurricane-maria/

Great resource to connect with local reporters in undercovered areas:
https://shoeleather.us/