

## National Hurricane Program, Mid-Season Newsletter



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# NHP Mid-Season Updates

Through the statistical peak of the Atlantic hurricane season, the National Hurricane Program (NHP) and the Hurricane Liaison Team (HLT) remains positioned to support state and local emergency managers when tropical cyclones threaten. The program spent the pre-season engaging with stakeholders at conferences, partner meetings, training courses and events. Readers can find specific details about the NHP's hurricane preparedness efforts in the NHP Spotlight, [here](#). In this newsletter, we will highlight NHP interagency efforts to support our stakeholders throughout hurricane season, and review how those efforts turned to action in support of Hurricane Ian preparation and response efforts.

It is through these engagements and stakeholder support that the NHP achieves its goal: three federal partners with one mission to save lives.



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# The NHP Supports Emergency Managers During Hurricane Ian

Last month, Hurricane Ian made landfall on the West Coast of Florida as a catastrophic category four hurricane. Well before Hurricane Ian threatened the U.S., the NHP operational team, the HLT, activated to support our emergency management partners. As Hurricane Ian developed in the Atlantic, the HLT deployed personnel to the National Hurricane Center (NHC), the NHP Headquarters' team reported to FEMA's National Response Coordination Center (NRCC), and HURREVAC activated 24-hour operations to support our emergency management stakeholders at all levels.

Hurricane Ian required the full extent of the NHP's operational capabilities and demonstrated the importance of the NHP's steady state hurricane preparedness efforts. It is with great pride that we in the NHP serve our stakeholders before, during and after hurricanes threaten the United States. Constantly in pursuit of the NHP's goal: three federal programs, one mission to save lives.

The devastation that Hurricane Ian wrought on Florida and the Southeastern United States was historic. With response and recovery efforts ongoing the hearts and minds of the NHP are with the disaster survivors and first responders during this difficult time. The NHP stands ready to support, continually monitoring the tropics for additional threats during this hurricane season.

To learn more about the NHP's Hurricane Ian activation, [click here.](#)



*Before Ian's landfall, the FEMA administrator and Chief of Staff attended briefings with the HLT at the National Hurricane Center.*

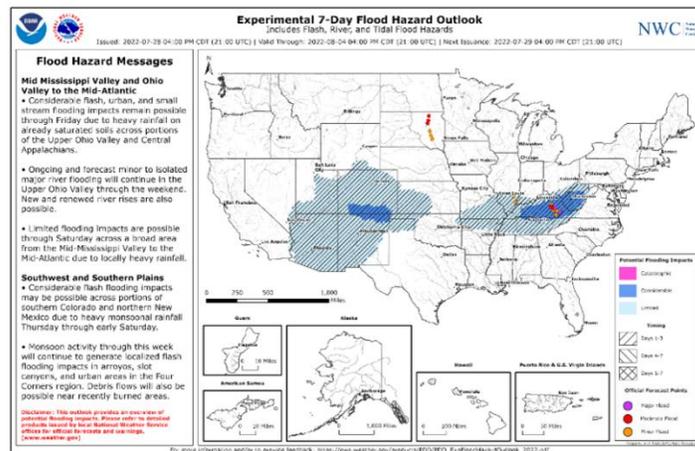
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# Now Live: National Water Center Operational Products

On July 5, 2022, the Office of Water Prediction and National Water Center (NWC) announced the release of three experimental products and a new public suite of geospatial visualizations in support of their Enhanced Operating Capability (EOC). These new services will improve preparedness for water-related events and inform high-value water decisions at the local, state and national levels. This is a significant milestone, as it is the first-time water resources information and services are being provided within the National Weather Service (NWS) operational environment at the national scale. This endeavor advances NOAA's NWS delivery of a new generation of water resource information and services to the nation.

All NWS products go through three phases: prototype, experimental and operational. Each product has gone through a product development lifecycle, and been reviewed by the Field Services Evolution Board, which is composed of local, regional and national representatives across the NWS field structure to inform the development of NWC Operational Products.

The NWC is pleased to release the following [experimental products](#): Flood Hazard Outlook (FHO), Area Hydrologic Discussion, National Hydrologic Discussion and a suite of NWC Visualization Services. [Click the link to read more about these three exciting new operational products from the National Water Center.](#)



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# HURREVAC Tip and Trick: New Training and Storm Tracking Capabilities

The latest developments in HURREVAC feature new options for tracking storms and additional training resources for users to learn about the program. Learn more about the latest updates to HURREVAC below:

## Track and Swath Options

HURREVAC's Track and Swath Options interface was recently redesigned to give users more choices for how to display storm tracks and forecasts. Users now can plot Previous Forecast Tracks to quickly visualize trends in a storm's predicted track over the past 24 to 36 hours. To do so, toggle on the "Previous Forecast Tracks" radio button in the "Track and Swath Options" section.

Learn more about this upgrade by checking out [this video](#) on the HURREVAC YouTube channel. [Subscribe to the HURREVAC YouTube channel](#) to get more updates, tips and quick tutorials.

## User Guide

HURREVAC's User Guide has been expanded with more details about the program's tools and upgraded with additional ways to access and search the content. Check out the in-app version by clicking on the "Help" section in the HURREVAC workspace, signified by the question mark icon in the toolbar on the lower-right side. Topics are broken down into several themes: exploring the workspace, tracking storms, wind tools and reports, evacuation timing tools, storm surge and inland flooding tools, and Storm Simulator.

Users can find topic specific information using the interactive search bar, index or updated glossary.

A printable PDF version of the [User Guide](#) can be downloaded from the Learning Resources section of [hurrevac.com](http://hurrevac.com). A convenient [18-page Quick Reference Guide](#) is also available.

## Training Modules

New HURREVAC users are encouraged to take advantage of the self-guided training modules within the program. Click "Training" in the toolbox in the lower-left corner of the workspace. Then, choose from topics like "Introduction to HURREVAC" and "Customizing the Workspace." A virtual trainer provides instructions and hints for how to navigate to useful features.

**HURREVAC**

**USER GUIDES AND TUTORIALS**

**User Guides for 2022**

\*Click here to download a 18-page HURREVAC Quick Reference Guide in PDF format.

\*Click here to download a 350-page HURREVAC User Guide in PDF format. Not all of the topics contained within this PDF document are accessible as online help resources with user login.

**Recorded Webinars**

\*Click here to download the 2022 webinar series slides in PDF format.

**Webinar Day 1 - Introduction to HURREVAC** (90 minutes)

An introduction to HURREVAC and general overview of the program. This video was recorded on June 6, 2022. It is part one of a 5-day National Hurricane Program webinar series.

**Webinar Day 2 - Wind Forecast Features** (90 minutes)

Tools in HURREVAC to support understanding of potential wind threat and intensity. This video is part of a 5-day National Hurricane Program webinar series.

**Webinar Day 3 - Evacuation Timing Features** (90 minutes)

Tools in HURREVAC to support evacuation decisions. This video was recorded on June 8, 2022. It is part of a 5-day National Hurricane Program webinar series.

**Webinar Day 4 - Storm Surge and Other Water Hazards** (90 minutes)

Storm Surge tools and other features to support hurricane response and decision-making related to 2022. It is part two of a 5-day National Hurricane Program webinar series.

**Webinar Day 5 - Exercise Tools and Applying HURREVAC** (90 minutes)

**HURREVAC User Guide**

**Quick Reference Guide**  
(18 pages)

The recently released User Guide and Quick Reference Guide can be found in the Learning Resources Section of the HURREVAC homepage.

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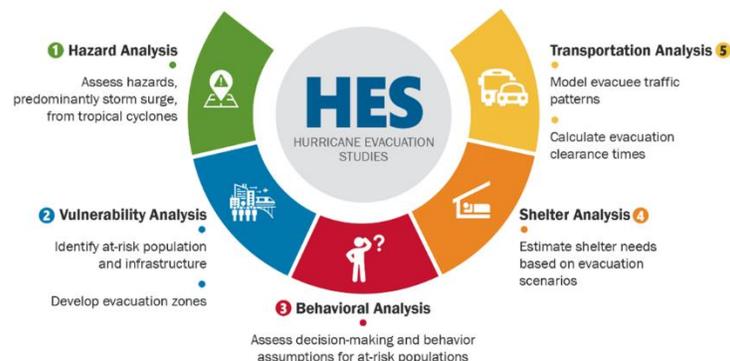
# Hurricane Evacuation Study Modernization Project Update

The NHP has recently completed the first phase in the Hurricane Evacuation Study (HES) Modernization Project: the stakeholder audit. During the stakeholder audit, the NHP engaged with over 20 internal and external stakeholders to assess their engagement with key HES processes and deliverables and identify areas of improvement. These interviews will help the NHP develop strategies to increase the usability of HES data, efficiency of the HES process, frequency of updates, and guide HES strategic direction and communications, all goals of the HES Modernization Project.

The NHP would like to thank the internal and external stakeholders who have participated in the first step of this initiative. If you are interested in contributing to the HES Modernization Project by sharing your experience with the HES process or deliverables, contact the NHP at [NHP@fema.dhs.gov](mailto:NHP@fema.dhs.gov).

Next, the NHP will validate information gathered through the stakeholder audit with targeted engagements and develop strategies for improving the HES process and deliverables. The NHP will provide updates on the status of the HES Modernization Project in future newsletters.

Hurricane Evacuation Studies provide critical planning factors and information that guide hurricane evacuation and response plans. The studies assess vulnerability of a population to hurricane threats and provide guidance to emergency managers for planning and executing hurricane evacuations.



*Hurricane Evacuation Studies are comprised of the five-component analysis depicted below. Through the HES Modernization Project, the NHP seeks to improve usability of HES data, increase efficiency of the HES process, increase frequency of updates, and guide HES Strategic direction and communications.*

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## Hurricane Training at the NHC in 2023

The NHP is excited to announce the reinstatement of its week-long “Hurricane Readiness for Decision Makers” course, to be hosted at the National Hurricane Center in winter of 2023. Due to the COVID-19 pandemic, the NHP has not hosted its flagship course since its last offering in spring of 2020.

The course includes a tour of the NHC and a demonstration of how the NHC specialists track and forecast hurricanes and their potential impacts. Students will also learn about hurricane hazards, how to interpret storm surge modeling and forecast products for their coastal jurisdictions, apply data and planning factors from Hurricane Evacuation Studies to inform evacuation plans and receive instruction on use of the HURREVAC decision support tool. The training will conclude with an evacuation decision-making tabletop exercise applying the tools and techniques presented throughout the week.

There will be three, region-specific sessions of the course held in January and February of 2023, with a week dedicated to States on the Northeast, Southeast, and Gulf Coast. Seats are limited, and registration will be done by invitation only. Invitations will be coordinated through FEMA Regional Hurricane Program Managers and States. Over the past year, the NHP’s training curriculum has undergone an extensive review and update process. Due to the ongoing update process, the course will be offered as a seminar and will not provide Continuing Education Units (CEUs). Participants will still receive certificates of attendance. Additional information on the course dates, registration process, and pre-requisites are forthcoming. The NHP looks forward to hosting its first cohorts early next year!



*Past "Hurricane Readiness for Decision Makers" training at the NHC.*

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## FEMA Podcast Before, During and After Features the NHP

The 2022 preseason included another first for the NHP. It participated in FEMA's podcast series for emergency managers, "Before, During and After" from the 2022 National Hurricane Conference. During Episode 95, NHP Program Manager, Christina Finch, and Regional Program Manager, Brandon Bolinski, discuss how its team of specialists work together with the National Hurricane Center, across regions and in tandem with headquarters to assist emergency managers in making informed evacuation decisions when tropical cyclones threaten. The podcast, another initiative of the NHP to expand stakeholder engagements, is available for listening or for downloading at [https://www.fema.gov/sites/default/files/audio/fema\\_episode-95\\_hurricaneprogram.mp3](https://www.fema.gov/sites/default/files/audio/fema_episode-95_hurricaneprogram.mp3).



*NHP Program Manager, Christina Finch, and Region 4 Hurricane Program Manager, Brandon Bolinski, recording an episode of FEMA's "Before, During and After" podcast series at this year's National Hurricane Conference.*

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# USACE Community Water Resource Technical Assistance Program

In addition to supporting evacuation planning through the NHP, the US Army Corps of Engineers (USACE) provides technical assistance to nationwide communities with diverse sets of water resources issues.

Under the **Floodplain Management Services (FPMS)** Program, the USACE provides technical services and planning guidance to state, regional, local government, non-federal agencies, and Tribes to support effective floodplain management. The main objectives of this program are to increase stakeholder awareness about their flood risk and identify actions that can be taken to reduce it. FPMS services are fully federally funded when non-federal partners request assistance and include:

- Floodplain delineation and inundation mapping
- Hydrologic and hydraulic modeling and analysis
- Flood hazard evaluation studies
- Flood warning and preparedness studies
- Flood proofing analysis
- Comprehensive floodplain management studies
- Flood risk management studies
- Stormwater management studies
- Inventory of flood prone structures
- Flood-related outreach materials

Under the **Planning Assistance to States (PAS)** Program, USACE is authorized to use its technical expertise in water and related land resources management to provide states, public entities within states, and Native American tribes assistance with water resources problems and needs. The USACE conducts planning level investigations and prepares findings in conjunction with a non-federal sponsor. PAS services are 50/50 cost shared (fed/non-fed) and include:

- All flood-related studies
- Geographic Information Systems (GIS) mapping

- Stormwater assessments
- Stream assessments
- Sanitary sewer (wastewater) studies
- Water supply and demand
- Water system vulnerability assessments
- Surface and groundwater quality
- Environmental restoration
- Wetland delineations
- Watershed planning

[Click here](#) to learn more about FPMS and PAS

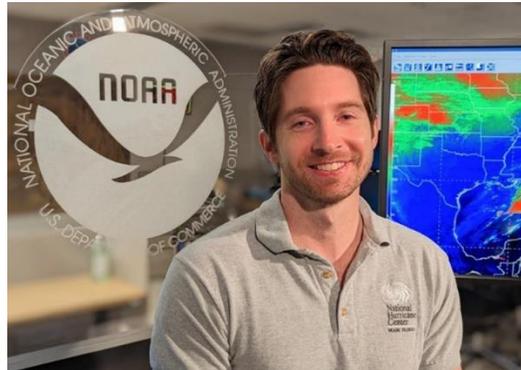


*USACE floodplain delineation and inundation mapping*

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## Team Spotlight: Dr. Cody Fritz, NHC



In May, Cody Fritz, Ph.D., became the team lead of the Storm Surge Unit at NOAA's National Hurricane Center in Miami, Florida. In support of the NHP, Dr. Fritz and his team conduct training sessions related to hurricane storm surge and Sea, Lake and Overland Surges from Hurricanes (SLOSH) model applications for emergency managers at Federal Emergency Management Agency (FEMA) sponsored workshops and national hurricane conferences, acts as a liaison to other NOAA agencies as well as the university community as it relates storm surge research and development and helps coordinate with FEMA, U.S. Army Corps of Engineers (USACE), and others on storm surge related activities.

Prior to completing his Doctorate, he began working at the National Hurricane Center as a Visiting Scientist for the University Center for Atmospheric Research (UCAR). His position supported the update of the SLOSH model basin database for the NWS and assisted in the operational coordination and communication of real-time storm surge forecasts with Hurricane Specialists and local NWS forecast offices during tropical cyclone landfall events. In 2017, Dr. Fritz was hired by NOAA as a specialist in the Storm Surge Unit (SSU) of the National Hurricane Center, working closely with the hurricane specialists to produce storm surge forecasts and products in land-threatening tropical cyclone situations.

Dr. Fritz received his Bachelor of Science Degree in Atmospheric Science from the University of Missouri and his Master of Science and Doctorate degrees in Atmospheric Science from the University of Illinois. Dr. Fritz has authored or co-authored several papers in peer-reviewed journals. He is also an active reviewer for many scientific journals, including the Monthly Weather Review, the Journal of Geophysical Research, and the Quarterly Journal of the Royal Meteorological Society. He has presented at numerous meteorological meetings, specializing in tropical cyclone genesis and storm surge. He is a member of the American Geophysical Union.

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## Important Upcoming Dates

- National Disaster Resilience Conference, November 7-10 (Florida)
- IAEM Annual Conference, November 13-17 (Georgia)
- Hurricane Readiness Seminar for Southeast States, January 23-27 (Florida)\*
- Hurricane Readiness Seminar for Northeast States, January 30-February 3 (Florida)\*
- Hurricane Readiness Seminar for Gulf States, February 6-10 (Florida)\*
  - \*By invitation only; seats are limited. Invitations will be coordinated through FEMA Regional Hurricane Program Managers and States.
- Save the Date: Interagency Coordinating Committee on Hurricanes (ICCOH) Annual Meeting, March 13-17 (Location TBD)

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