IRA Industry Proving Grounds: Insurance and Reinsurance Sectors

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National Centers for Environmental Information (NCEI)

National Oceanic and Atmospheric Administration (NOAA)

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What is the Industry Proving Ground?

Connecting industry to actionable data, products, and services to build climate resilience across the Nation.

- The Inflation Reduction Act's **Industry Proving Grounds (IPG)** is a new effort to develop and share actionable climate information and improve the delivery of that information to industry partners.
- NOAA–through the National Centers for Environmental Information (NCEI)–is working directly with three major industries (**architecture and engineering, reinsurance and insurance**, and **retail**) to improve information that will allow these sectors to better assess climate risk and empower rapid decision making and long-term planning.

Insurance and Reinsurance Sector and Service Delivery

- RAA is partnering with NCEI to **design, build, and test** new NOAA products over the next several years to improve environmental data access in the reinsurance and insurance industry.
- Continuous engagement with end users allows timely, relevant, responsive, and strategic NOAA information and data to be used in crucial decision-making.
- **The IPG is NOAA's Service Delivery Model in action.** Continuous engagement with users helps ensure NOAA builds products that the industry wants and needs.

IPG Sectors

Architecture & Engineering

Reinsurance

Through ongoing engagement with members of these three sectors and developing new, informational products like maps, reports, and datasets, NOAA's information will **strengthen these industries' decision-making related to climate resilience** and help **protect those communities most vulnerable to climate change and its impacts.**

Insurance and Reinsurance

Who are they?

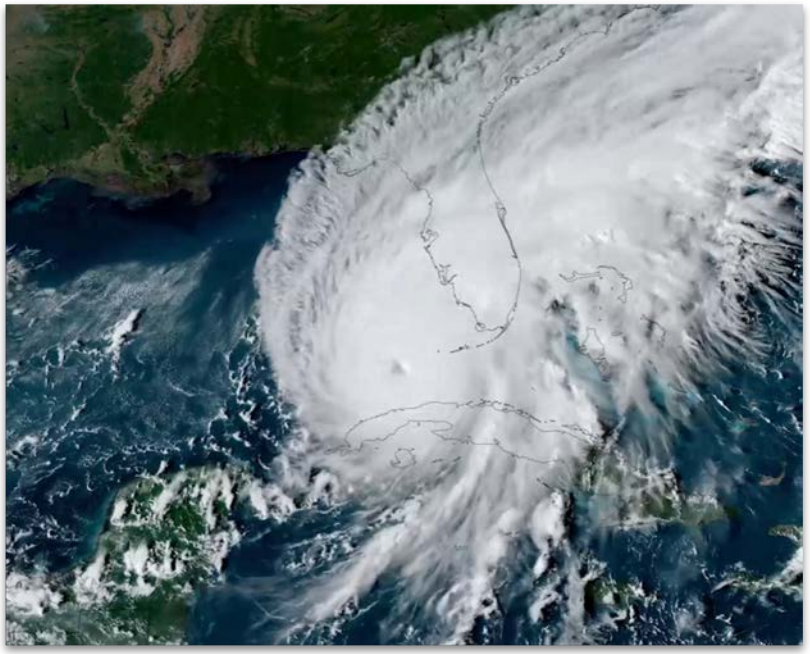
- **Insurance companies** serve to offer financial policies to cover the weather and climate hazard risks to **homes, vehicles, businesses, agriculture, and more.**
- **Reinsurance companies** offer policies to insurance companies to insure the financial risk of company solvency.

Insurance and Reinsurance

How do they use data?

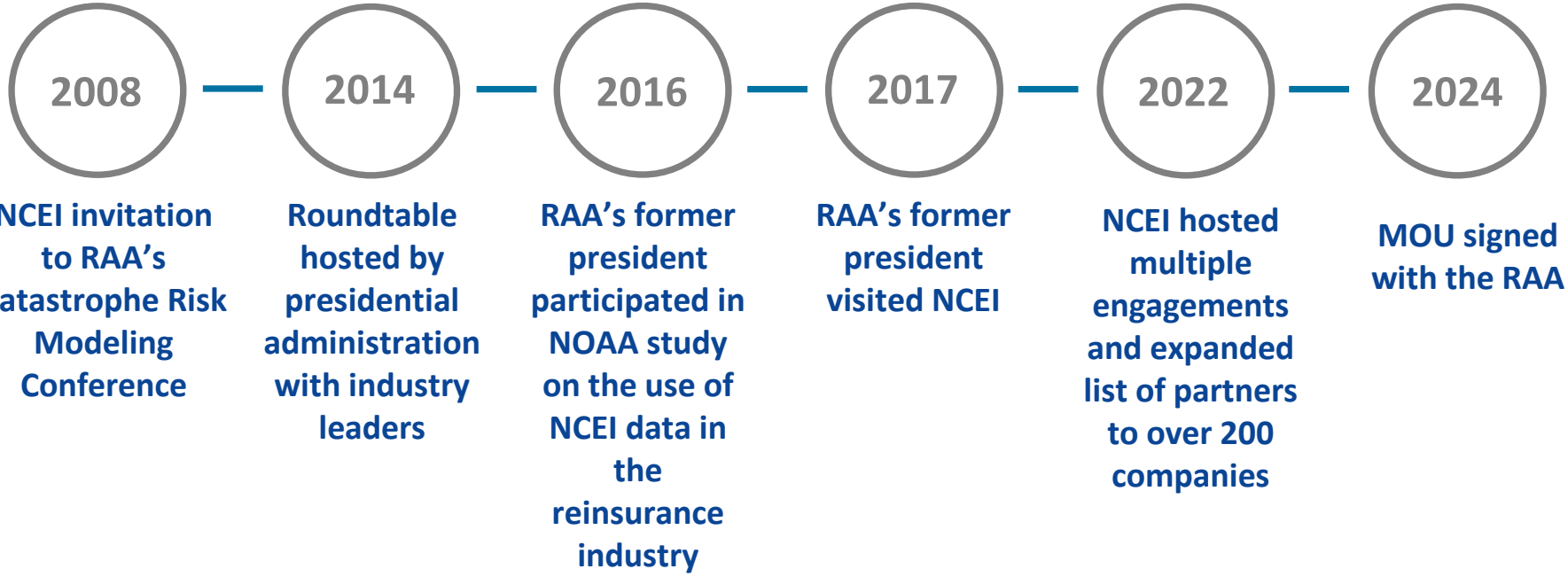
The industry uses climate and weather data for:

- Loss Prediction: Anticipate the total losses to **plan for each event** and allocate the capital needed to cover them.
- Claim Verification: Use data to **verify the occurrence** of severe weather events to process claims.
- Catastrophe Models: Insurers and reinsurers make catastrophe (CAT) models with **raw data** that estimate damage costs from catastrophic events such as hurricanes, tornadoes, and more.



History of Engagement

For more than **15 years,** NCEI has been engaging with the Reinsurance Association of America (**RAA**), building a relationship with the former director, and gathering information needs.



Current and Planned Engagements

Through the IPG, NOAA is adapting insurance and reinsurance needs into products that will provide the industry with unique and critical climate risk information. Engagement includes:

- **Monthly meetings** with industry
- **Webinar Series** on Coastal Hazards in February 2025
- NOAA at **CAT Management Conference** in February 2025
- More to come…

Service Delivery Model in Practice

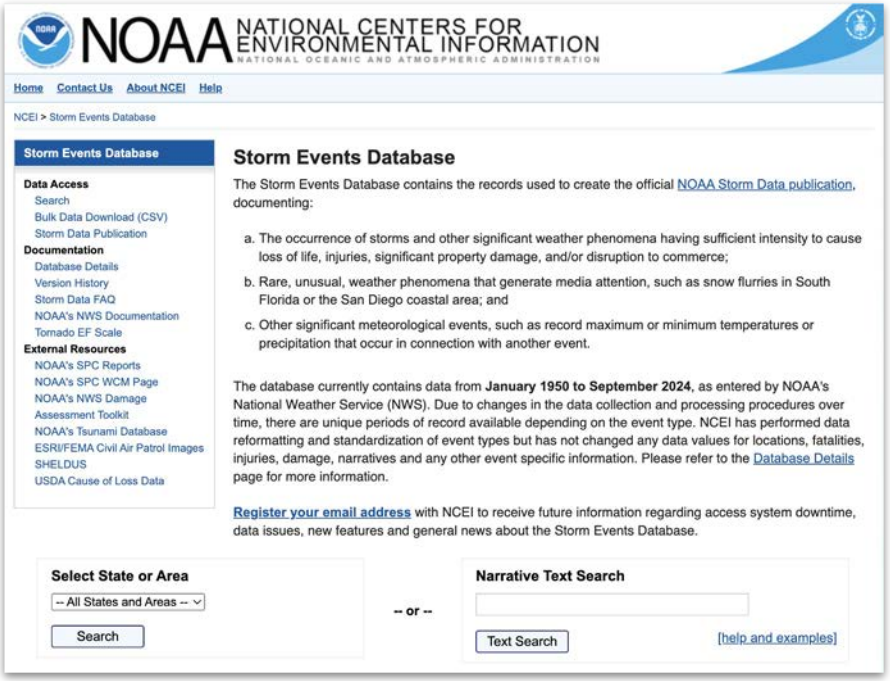
Expressed Needs	Planned Products and Engagement
Projected changes to hail intensity, frequency, and regional hazard footprints.	**Hail Climatology:** This new product will include mapped data of hail intensity footprints across the country, allowing industry members to download and use data from a given region.
Wind impacts to wildfires, derechos, peak gust information, and straight-line wind.	**Wind Climatology:** This new product will be a model-based wind climatology of cloud-accessible data dating back to 1950 that allows users to download regional-specific data for industry analysis.
One stop shop to get all the information they need about high impact events.	**Major Event Catalogs:** This new product will include datasets on weather and climate elements for 5-10 of the most high impact events each year (i.e. hurricanes, floods, and droughts).
Information on the evolving impacts to infrastructure from coastal and inland flooding.	**Coastal Flooding**: A webinar will be held with insurance and reinsurance to showcase coastal hazard data and tools from NOAA and other government agencies.

Service Delivery Model in Practice

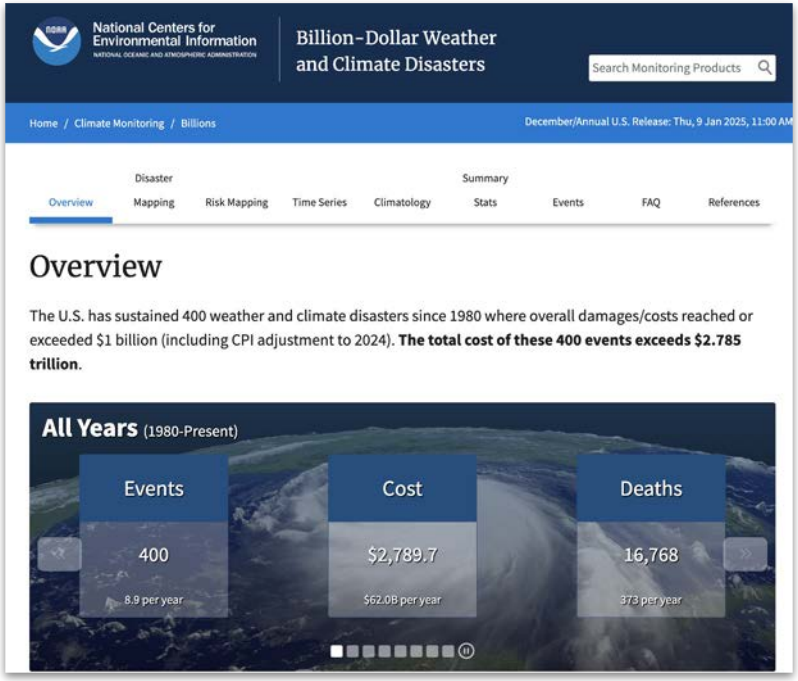
Planned products and engagement based on industry needs:

- **Hail Climatology**
- **Wind Climatology**
- **Event Catalogs**
- **Coastal Flooding**

Products Under Development



Storm Events Database



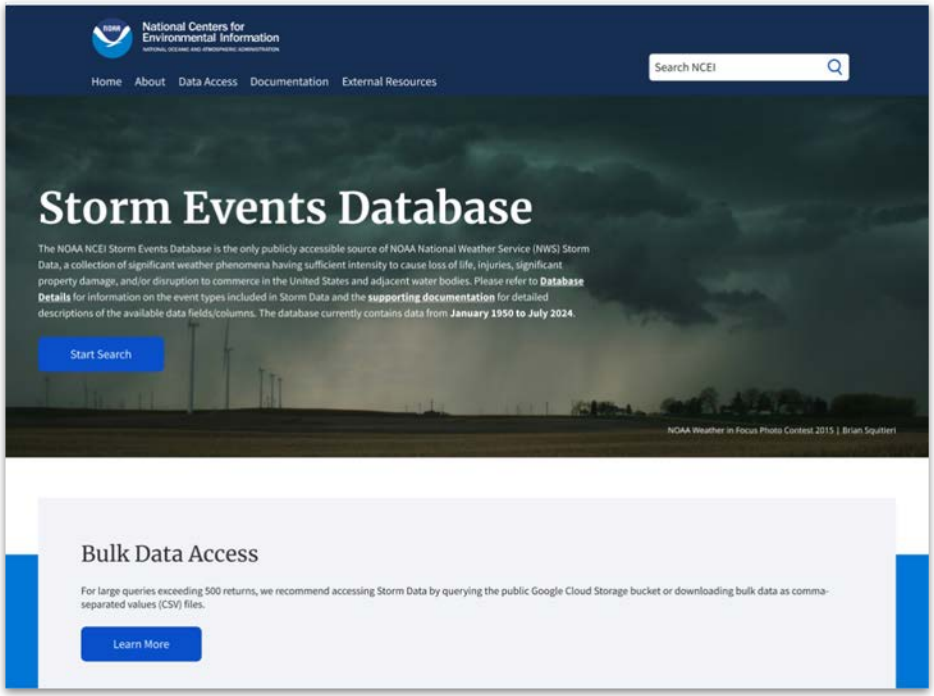
Billion/Sub-Billion Dollar Disasters

In Development: Storm Events Database

Description: An enhanced platform for accessing and visualizing dozens of hazards from 1950s to present that include statistics of each storm.

Project Goals:

- Redesign the web interface.
- Add a graphical component to the website: Users can click on the region on the map they want to search, and search by time period.
- Create Automated PDF Reports for each storm event.

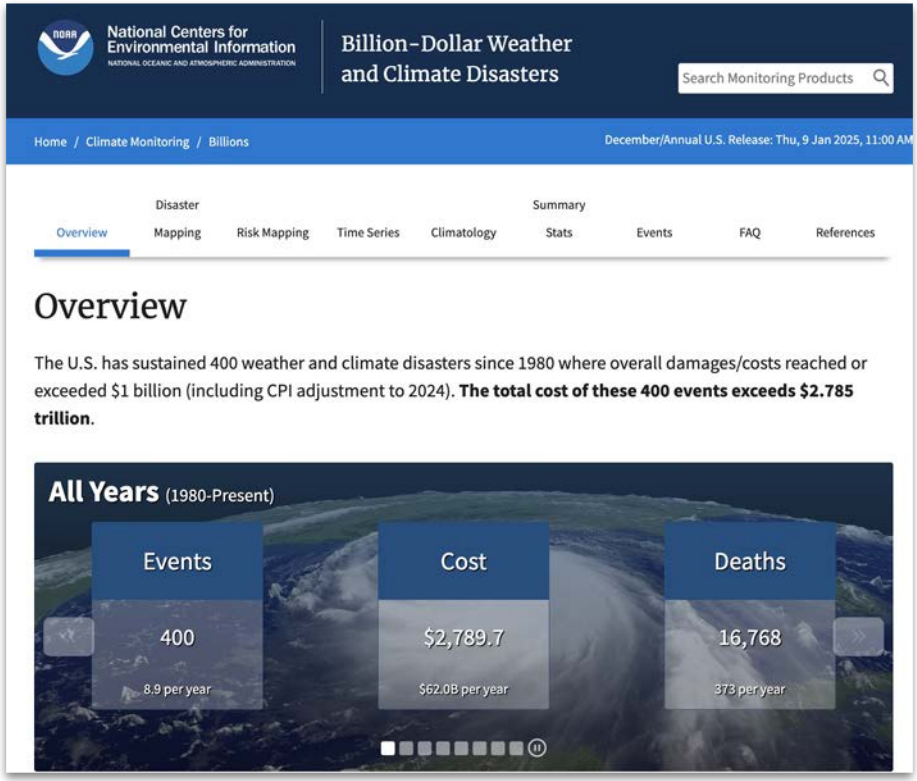


In Development: Billion/Sub-Billion Dollar Disasters

Description: Product suite of weather and climate events that incur costs of $1B or more.

Project Goals:

- Expand Billion Dollar Disaster project to include small-medium size events ($100M - $1B).
- Automate calculations and updates to the table.
- Improve spatial resolution of wildfire information.



Thank you!

We are happy to respond to any questions or comments.

Points of Contact

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