

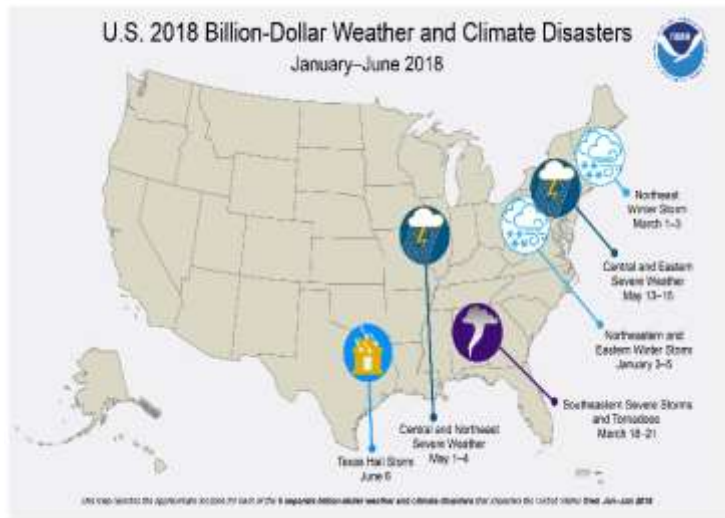
NATURAL DISASTER RESPONSE



TRENDS IN NATURAL DISASTERS

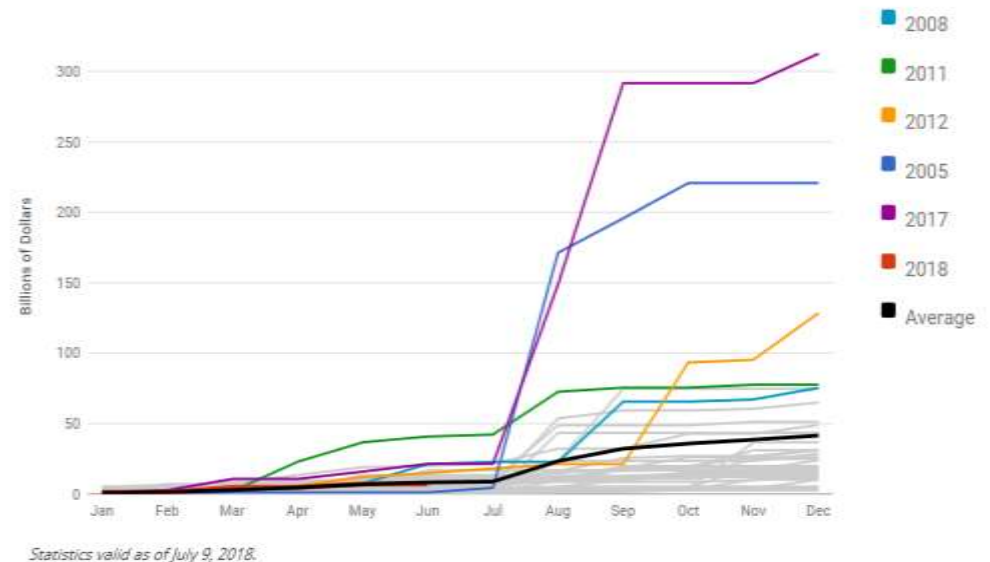
2017

- RECORD RAINFALL ON TEXAS
- PUERTO RICO HURRICANES & LEFT WITHOUT POWER
- WILDFIRES IN CALIFORNIA
- \$306 BILLION IN DAMAGE



1980-2018 Year-to-Date United States Billion-Dollar Disaster Event Cost (CPI-Adjusted)

Event statistics are added according to the date on which they ended.



2018

- AS OF JULY 9, THERE WERE 6 EVENTS EXCEEDING \$1B
- 1980-2017 AVERAGED 6 \$1B+ EVENTS/YEAR
- 2013-2017 AVERAGED 11.8 \$1B+ EVENTS/YEAR

*Source: <https://www.ncdc.noaa.gov/billions/overview>

KNOW YOUR PORTFOLIO: GEOGRAPHIC CHALLENGES

PUERTO RICO

- GEOGRAPHIC LOCATION
- ACCESS & RESOURCES (MATERIAL & LABOR)

RESOURCES

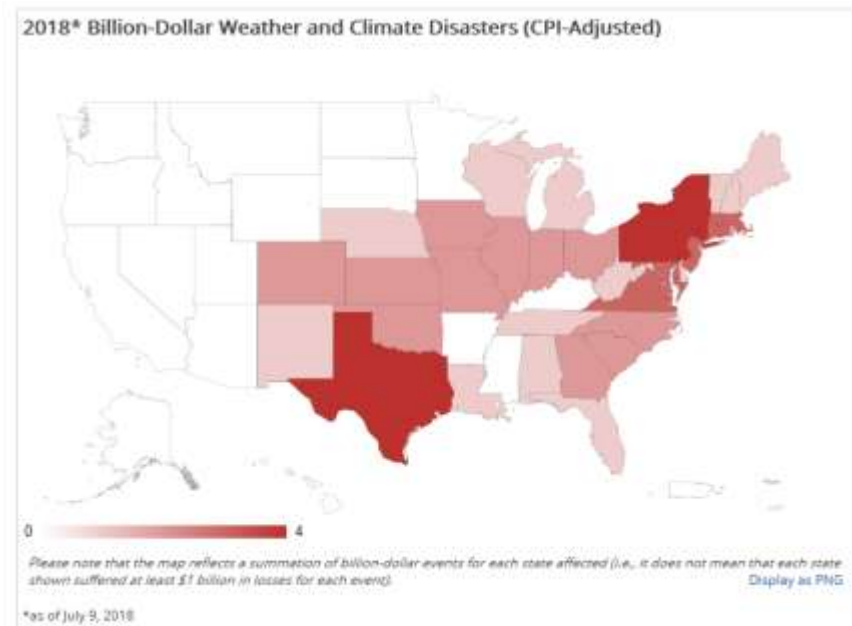
- BE PREPARED IN THE STATES/AREAS AT RISK
- EXISTING CHALLENGES ARE MAGNIFIED IN A DISASTER

BUILDING CODES

- KNOW THE BUILDING CODES AND REQUIREMENTS
- FINANCIAL RESOURCES (SBA) IN THE EVENT OF CHANGES TO CODES

ADDRESS DAMAGE & REPAIRS

- PROMPTLY IDENTIFY & QUANTIFY DAMAGE
- MITIGATE LOSS
- REPORT CLAIM
- BORROWERS TO REQUEST ASSISTANCE (SBA, FEMA)



THE WALL STREET JOURNAL.

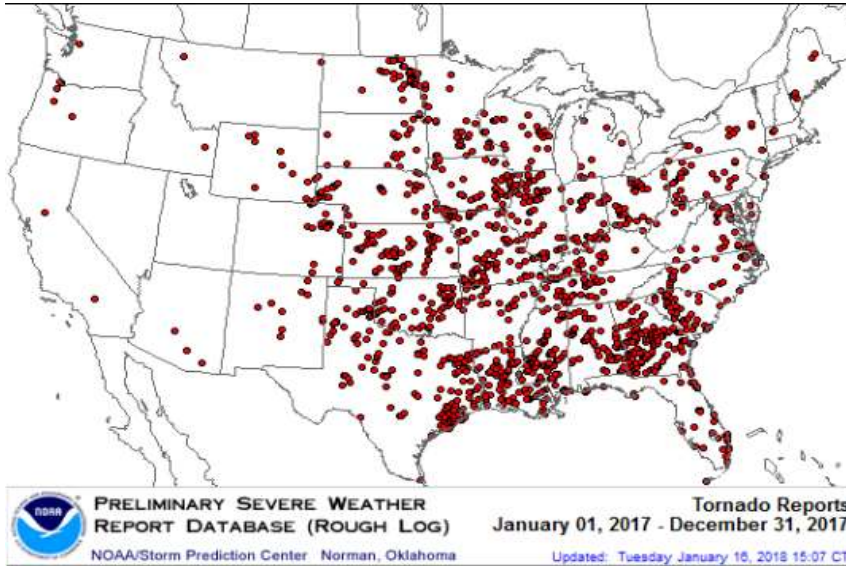
Home World U.S. Politics Economy Business Tech Markets Opinion Arts Life Real Estate

U.S.

After Harvey, Texas Town Looks to Fortify in State With No Mandatory Building Code

*Source: <http://webreprints.djreprints.com/4355980482352.html>; <https://www.ncdc.noaa.gov/billions/mapping>

TORNADOES



WHAT'S THE RISK?

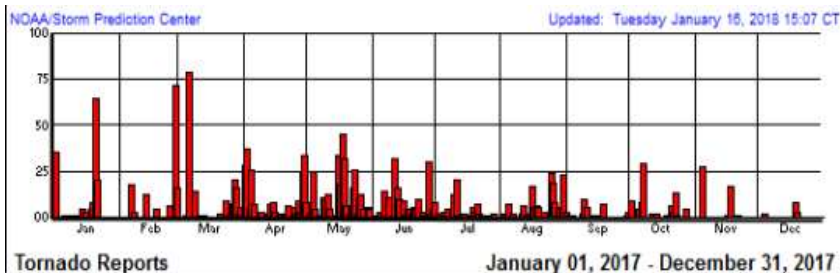
- AVERAGE OF 900+ TORNADOES PER YEAR
- OCCURS IN ALL 50 STATES
- 57% OF ALL US CATASTROPHIC LOSSES ARE TORNADO-RELATED
- WIND SPEEDS OF UP TO 250 MPH
- CAN BE 1 MILE WIDE AND TRAVEL UP TO 50 MILES

2011

- THE DEADLIEST TORNADO DESTROYED 7,500 HOMES
- LASTED 40 MINUTES
- CAUSED \$2.2B IN PROPERTY INSURANCE CLAIMS ALONE

2015

- TOTALED \$10B IN PROPERTY INSURANCE CLAIMS



*Source: <https://www.insuramatch.com/blog/2015/04/does-homeowners-insurance-cover-tornado-damage>; <https://www.trustedchoice.com/catastrophe-insurance/tornado-coverage/>;
<https://www.policygenius.com/blog/homeowners-renters-insurance-tornado-damage/>; https://www.spc.noaa.gov/climo/online/monthly/2017_annual_summary.html#

TORNADOES: PRESERVATION & COVERAGE

Preservation:

- Note and photograph damages to roof & exterior
- Indicate the source of any water damage
- Promptly tarp/board to prevent further damage

Challenges:

- Need good photos of roof prior to tarping
- Promptly complete any remediation
- Debris removal



Coverage:

- ✓ Most policies provide coverage for property loss caused by tornadoes—a special endorsement is typically not needed
- ✓ Resulting fire or explosion is covered
- ✓ Coverage for damage due to vandalism or theft if the occupant is displaced

- **Challenges:**

- X Changes in building codes
- X Manufactured homes are disproportionately impacted
- X Damage to land or landscaping

EARTHQUAKES

WHAT'S THE RISK:

- SINCE 1900, ALASKA HAS EXPERIENCED AN AVERAGE OF 1 MAGNITUDE 8.0 OR GREATER EVERY 13 YEARS AND A 7.0-8.0 EVERY 2 YEARS
- EARTHQUAKES ALONG THE FAULT LINES ARE WELL-UNDERSTOOD
- EARTHQUAKES WITHIN THE PLATES ARE NOT WELL KNOWN AND UNPREDICTABLE (FOR EXAMPLE: MEXICO)
- TSUNAMI DANGERS ALONG THE COAST
- 90% OCCUR IN THE RING OF FIRE AROUND THE PACIFIC—THIS INCLUDES CALIFORNIA AND ALASKA

SCIENTISTS PROJECT EARTHQUAKE IN PACIFIC NORTHWEST

- PROJECTED TO BE THE “WORST NATURAL DISASTER IN THE HISTORY OF NORTH AMERICA”
- PROJECTED IMPACT: 7M PEOPLE
- SPAN 140,000 SQUARE MILES
- SAN ANDREAS FAULT

Table 5: Oklahoma Gross Domestic Product, 2014

Location	2014 GDP (\$millions)
Oklahoma	\$183,397
OKC MSA	\$72,717
Tulsa MSA	\$56,027
Lawton MSA	\$4,860
Non-Metro Oklahoma	\$49,792

Source: U.S. Bureau of Economic Analysis

Table 4: Top 10 Costliest U.S. Natural Disasters, 1985-2015

Year	Description	Estimated Cost (\$bil, 2015 dollars)
2005	Hurricane Katrina	\$152.5
2012	Hurricane Sandy	\$67.6
1994	Northridge Earthquake	\$64.0
1992	Hurricane Andrew	\$45.9
1988	U.S. Drought/Heatwave	\$40.2
1993	Midwest Flooding	\$34.7
2008	Hurricane Ike	\$33.3
2012	U.S. Drought/Heatwave	\$31.2
2004	Hurricane Ivan	\$25.8
2005	Hurricane Wilma	\$23.2

Source: National Oceanic and Atmospheric Administration

*Source: <https://www.iii.org/article/earthquake-insurance-for-homeowners>

EARTHQUAKES: PRESERVATION & COVERAGE

Preservation:

- Document extent of structural damage in description and with photos
- For leaning structures, use a vertical point of reference to document the tilt
- Promptly secure any openings

Challenges:

- Access is a challenge if buildings are structurally are damaged
- Structural damages are difficult to estimate from photos and may require an engineer and bid

Coverage:

- ✓ Only covered under a special endorsement or separate earthquake policy
- ✓ Resulting fire or explosion is covered
- ✓ Coverage for damage due to vandalism or theft if the occupant is displaced
- ✓ California Earthquake Authority offers coverage for house and building code upgrades and emergency repairs

NOTE: Typically a high deductible

Not Covered:

- X Earthquakes, tremors, landslides, mudflow or other earth movement without a special endorsement or policy

*Source: <https://www.iii.org/article/earthquake-insurance-for-homeowners>

HURRICANES

WHAT'S THE RISK?

- HURRICANE SEASON JUNE 1-NOVEMBER 30

2017 SEASON

- 17 TROPICAL STORMS
- 6 CATEGORY 3
- 2 CATEGORY 5
- FIRST TIME 3 CATEGORY 4+ HURRICANES MADE LANDFALL IN ONE YEAR
- ESTIMATES OF HARVEY ALONE--\$25-\$35B IN PROPERTY DAMAGE WITH ONLY \$7-10B INSURED (PER NFIP)



27 trillion

Gallons of rain Harvey dumped
in Texas (and Louisiana) in 6 days



51

Inches of rain — a record
from a tropical cyclone
in the continental US

*Source: <https://www.iii.org/fact-statistic/facts-statistics-hurricanes>; <https://insideclimatenews.org/news/02062018/hurricane-season-2018-noaa-storm-forecast-global-warming-atlantic-ocean-temperature-new-category-6>

HURRICANE: PRESERVATION & COVERAGE

Preservation:

- Determine source of water and capture any openings in the roof or siding via photos and description
- Use moisture meters to document the extent of damage
- Immediately remediate water damage where possible and document with photos

Challenges:

- Verification of occupancy
- Timely remediation
- Change in building codes



Coverage:

- ✓ Most policies provide coverage for property loss caused by hurricane but some states may have a separate deductible for hurricanes and/or windstorms
- ✓ Typically the deductible is a % of the insured value
- ✓ Coverage for damage due to vandalism or theft if the occupant is displaced

Challenges:

- X No coverage for flood unless there is a separate flood policy or endorsement
- X Wind driven rain unless there is a separate endorsement
- X Underinsured
- X Change in building codes
- X Wind-driven rain
- X Deductible for named storms
- X Wind vs. water (insured must prove)

VOLCANIC ERUPTION

WHAT'S THE RISK?

- GEOLOGISTS SITE MT. RAINIER AS POTENTIALLY ONE OF THE “MOST DANGEROUS VOLCANOS IN THE WORLD”
- **80,000** PEOPLE LIVE IN THE AREA OF POTENTIAL IMPACT VS **23,000** IN THE MOST DEADLY VOLCANIC DISASTER IN HISTORY
- 700+ HOMES DESTROYED IN HAWAII SINCE MAY 2018
- MT. ST HELEN'S CAUSED \$31M IN INSURED LOSSES WHEN IT ERUPTED IN 1980



*Source: <https://volcanoes.usgs.gov/index.html>; <https://www.nationalgeographic.com/science/2018/07/news-most-dangerous-volcano-mount-rainier-supervolcanoes-yellowstone/>

VOLCANOES: PRESERVATION & COVERAGE

Preservation:

- Ash is heavy and can cause damage if allowed to accumulate—remove from roof & gutters
- Articulate the amount of damage from ash and illustrate it in photos
- Do not wipe or brush ash from windows since it can easily scratch

Challenges:

- Access is a challenge if roads are damaged
- Ash in the air can damage vehicle engines



Coverage:

- ✓ Most policies provide coverage for property loss caused by volcanic eruption when it's the result of a volcanic blast, airborne shockwaves, ash, dust or lava flow
- ✓ Resulting fire or explosion is covered
- ✓ Coverage for damage due to vandalism or theft if the occupant is displaced

Not Covered:

- X Earthquakes, tremors, landslides, mudflow or other earth movement regardless of whether the quake is caused by the volcanic eruption.
- X Damage to land or landscaping
- X Current lawsuits in Hawaii on-going

*Source: <https://www.iii.org/article/volcanic-eruption-coverage>

CALIFORNIA FIRES: 2017 VERSUS 2018

2017 WILDFIRE RECONSTRUCTION: \$10B

WILDFIRE SEASON:

CALIFORNIA'S LARGEST FIRES TYPICALLY BEGIN IN AUGUST OR SEPTEMBER BUT BEGAN IN JULY THIS YEAR

2018 FIRE OUTLOOK

Figure 1: Risk and Reconstruction Values in French Gulch and Redding

	Risk Levels	French Gulch, CA (ZIP Code: 96033)	Redding, CA (ZIP Code: 96001)
Home Counts	Low Risk (1-50)	-	6,846
	Moderate Risk (51-60)	-	512
	High Risk (61-80)	91	1,757
	Very High Risk (81-100)	104	1,839
	Total	195	10,771
Reconstruction Values (Thousands)	Low Risk (1-50)	-	\$1,984,017
	Moderate Risk (51-60)	-	\$159,639
	High Risk (61-80)	\$25,587	\$583,979
	Very High Risk (81-100)	\$29,242	\$711,647
	Total	\$52,829	\$3,439,282

Source: CoreLogic, 2018

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"IT HAS GOTTEN TO THE POINT THAT ONE FIRE SEASON IS BLEEDING INTO THE NEXT. 'WE'RE RESPONDING TO THE WILDLAND FIRES YE AR ROUND NOW.'"—CAL FIRE SPOKESMAN SCOTT MCLEAN TO THE SACRAMENTO BEE

*Source: www.corelogic.com; <https://www.sacbee.com/latest-news/article214198989.html>

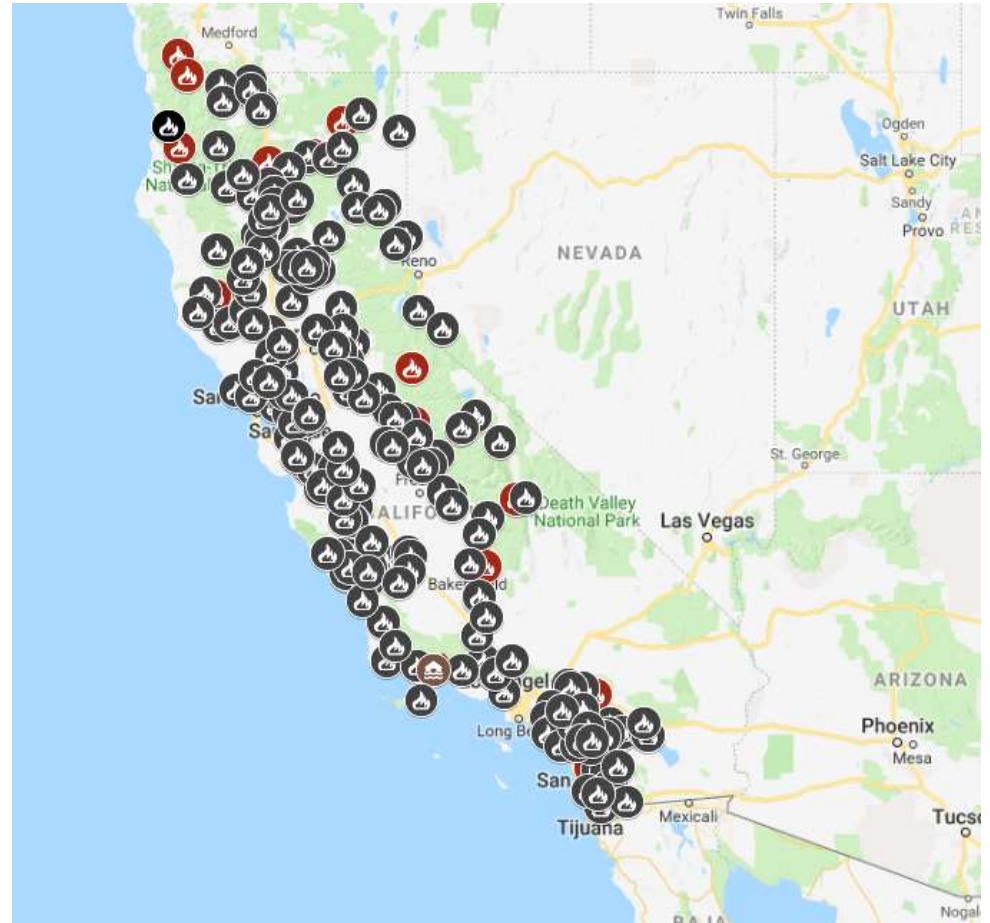
CALIFORNIA FIRES: JAN TO AUG 2018

CARR FIRE, REDDING

- 214,000 ACRES BURNED, LARGER THAN DALLAS, TX
- 71% CONTAINMENT AS OF 8/15/18
- SUPPRESSION OVER \$25M
- HOME VALUE LOST: \$253M, 900 HOMES

RANCH & RIVER FIRES, MENDOCINO

- 364,145 ACRES BURNED (568 SQ MILES), LARGER THAN LOS ANGELES, CA
- CALIFORNIA'S LARGEST FIRE IN HISTORY
- 69% CONTAINED AS OF 8/15/18



*Source: www.fire.ca.gov

FIRES: PRESERVATION & COVERAGE

Preservation:

- Document the extent of damage and articulate what cannot be portrayed in photos, including smoke damage
- Remediate water damage immediately but preserve the loss via receipts, invoices and photographic documentation

Challenges:

- Cities sometimes prevent entry
- Building codes may have changed since the structure was built



Coverage:

- ✓ Most policies provide coverage for property loss caused by fire, including wildfires
- ✓ Detached structures are typically covered as well
- ✓ Additional living expenses
- ✓ Service charges made by the fire department

Challenges:

- X Carriers sometimes cite a vacancy exclusion for damages related to arson (this should be disputed!)
- X Uninsured or underinsured structures
- X Some insurers do not sell policies in areas where wildfires are common (FAIR Plans)

OUTREACH PROGRAM

- ✓ Benefits & considerations
- ✓ Borrower advocacy to dispute a wrongfully denied claim
- ✓ Deductible assistance
- ✓ Emergency remediation





2018 CONFERENCE OF MORTGAGE FIELD SERVICES

DENVER, COLORADO | SEPTEMBER 5-7 | HOSTED BY NAMES