



**North Carolina  
Insurance Underwriting Association (NCIUA)**

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**North Carolina  
Joint Underwriting Association (NCJUA)**

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**North Carolina  
IUA - RMS Hurricane Summary**

Data inforce as of 11/1/2017

Per Occurrence PMLs:

*RMS - Stochastic Hurricane View*

*RMS - Historical Hurricane View*

| Return Period | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change |
|---------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|
| 1,000         | \$8,881,206,421 | \$9,877,399,801 | \$9,144,589,165 | 11.2%        | -7.4%           | 3.0%           | \$8,719,788,377 | \$9,112,183,539 | \$8,437,780,162 | 4.5%         | -7.4%           | -3.2%          |
| 500           | \$6,622,137,753 | \$7,086,184,798 | \$6,557,540,541 | 7.0%         | -7.5%           | -1.0%          | \$6,325,425,303 | \$6,779,618,364 | \$6,266,656,882 | 7.2%         | -7.6%           | -0.9%          |
| 250           | \$4,389,927,287 | \$4,575,036,015 | \$4,234,089,337 | 4.2%         | -7.5%           | -3.5%          | \$4,150,783,703 | \$4,584,027,701 | \$4,241,220,954 | 10.4%        | -7.5%           | 2.2%           |
| 150           | \$3,203,411,774 | \$3,216,125,022 | \$2,983,255,931 | 0.4%         | -7.2%           | -6.9%          | \$3,050,502,614 | \$3,277,954,910 | \$3,039,890,235 | 7.5%         | -7.3%           | -0.3%          |
| 100           | \$2,513,041,282 | \$2,452,315,909 | \$2,277,008,878 | -2.4%        | -7.1%           | -9.4%          | \$2,389,378,512 | \$2,519,236,236 | \$2,339,004,262 | 5.4%         | -7.2%           | -2.1%          |
| 75            | \$2,095,668,786 | \$2,010,191,563 | \$1,869,001,780 | -4.1%        | -7.0%           | -10.8%         | \$1,990,665,557 | \$2,073,210,223 | \$1,927,407,787 | 4.1%         | -7.0%           | -3.2%          |
| 50            | \$1,592,546,095 | \$1,507,256,175 | \$1,404,104,567 | -5.4%        | -6.8%           | -11.8%         | \$1,514,617,292 | \$1,557,238,958 | \$1,450,480,545 | 2.8%         | -6.9%           | -4.2%          |
| 20            | \$769,785,552   | \$725,591,179   | \$678,619,292   | -5.7%        | -6.5%           | -11.8%         | \$729,857,749   | \$738,426,489   | \$690,609,206   | 1.2%         | -6.5%           | -5.4%          |
| 10            | \$348,950,422   | \$328,549,461   | \$309,005,748   | -5.8%        | -5.9%           | -11.4%         | \$322,309,812   | \$322,454,379   | \$303,394,736   | 0.0%         | -5.9%           | -5.9%          |

Annual Aggregate PMLs:

*RMS - Stochastic Hurricane View*

*RMS - Historical Hurricane View*

| Return Period         | 11/1/2016 - v16 | 11/1/2016 - v17  | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change |
|-----------------------|-----------------|------------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|
| 1,000                 | \$9,067,770,937 | \$10,038,384,823 | \$9,294,713,703 | 10.7%        | -7.4%           | 2.5%           | \$8,890,251,639 | \$9,287,790,136 | \$8,601,955,530 | 4.5%         | -7.4%           | -3.2%          |
| 500                   | \$6,778,680,111 | \$7,236,042,368  | \$6,697,799,636 | 6.7%         | -7.4%           | -1.2%          | \$6,478,067,820 | \$6,932,203,381 | \$6,409,979,812 | 7.0%         | -7.5%           | -1.1%          |
| 250                   | \$4,560,923,782 | \$4,729,251,965  | \$4,378,154,348 | 3.7%         | -7.4%           | -4.0%          | \$4,310,992,739 | \$4,737,816,994 | \$4,385,281,402 | 9.9%         | -7.4%           | 1.7%           |
| 150                   | \$3,352,385,769 | \$3,354,585,331  | \$3,113,294,856 | 0.1%         | -7.2%           | -7.1%          | \$3,188,894,415 | \$3,417,641,625 | \$3,171,223,796 | 7.2%         | -7.2%           | -0.6%          |
| 100                   | \$2,643,221,805 | \$2,576,403,734  | \$2,393,686,305 | -2.5%        | -7.1%           | -9.4%          | \$2,511,904,211 | \$2,642,879,545 | \$2,455,184,754 | 5.2%         | -7.1%           | -2.3%          |
| 75                    | \$2,213,659,526 | \$2,123,331,268  | \$1,975,230,198 | -4.1%        | -7.0%           | -10.8%         | \$2,101,188,754 | \$2,185,442,628 | \$2,032,713,180 | 4.0%         | -7.0%           | -3.3%          |
| 50                    | \$1,691,781,221 | \$1,601,147,031  | \$1,492,299,489 | -5.4%        | -6.8%           | -11.8%         | \$1,606,246,410 | \$1,649,565,633 | \$1,537,250,510 | 2.7%         | -6.8%           | -4.3%          |
| 20                    | \$820,994,985   | \$772,711,279    | \$723,126,473   | -5.9%        | -6.4%           | -11.9%         | \$776,591,463   | \$784,715,967   | \$734,318,926   | 1.0%         | -6.4%           | -5.4%          |
| 10                    | \$370,488,262   | \$347,805,471    | \$327,275,002   | -6.1%        | -5.9%           | -11.7%         | \$341,771,909   | \$341,380,185   | \$321,375,812   | -0.1%        | -5.9%           | -6.0%          |
| Average Annual Loss   | \$158,949,927   | \$154,663,817    | \$144,361,322   | -2.7%        | -6.7%           | -9.2%          | \$149,863,403   | \$153,938,954   | \$143,689,315   | 2.7%         | -6.7%           | -4.1%          |
| Standard Deviation    | \$700,123,450   | \$731,969,063    | \$678,750,659   | 4.5%         | -7.3%           | -3.1%          | \$669,716,368   | \$697,967,309   | \$647,178,055   | 4.2%         | -7.3%           | -3.4%          |
| 100 Yr PML:Premium    | 6.8             | 6.6              | 6.5             | -2.4%        | -1.5%           | -3.9%          | 6.4             | 6.8             | 6.7             | 5.4%         | -1.5%           | 3.9%           |
| Implied HU Loss Ratio | 42.9%           | 41.7%            | 41.3%           | -2.7%        | -1.0%           | -3.6%          | 40.4%           | 41.5%           | 41.1%           | 2.7%         | -0.9%           | 1.7%           |

Exposure Summary:

|                | 11/1/2016        | 11/1/2016        | 11/1/2017        |      |       |       |
|----------------|------------------|------------------|------------------|------|-------|-------|
| Total Limit    | \$81,252,974,196 | \$81,252,974,196 | \$76,402,966,610 | 0.0% | -6.0% | -6.0% |
| Premium        | \$370,918,286    | \$370,918,286    | \$349,539,324    | 0.0% | -5.8% | -5.8% |
| Policy Count   | 216,165          | 216,165          | 206,337          | 0.0% | -4.5% | -4.5% |
| Location Count | 232,714          | 232,714          | 221,351          | 0.0% | -4.9% | -4.9% |

Modeling Notes:

1. Demand surge ("loss amplification") is included.
2. Storm surge is excluded.

**North Carolina  
JUA - RMS Hurricane Summary**

Data inforce as of 11/1/2017

Per Occurrence PMLs:

*RMS - Stochastic Hurricane View*

*RMS - Historical Hurricane View*

| Return Period | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change |
|---------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|
| 1,000         | \$847,548,476   | \$845,491,993   | \$909,240,098   | -0.2%        | 7.5%            | 7.3%           | \$815,726,064   | \$856,356,272   | \$902,698,121   | 5.0%         | 5.4%            | 10.7%          |
| 500           | \$643,443,676   | \$648,472,241   | \$698,426,004   | 0.8%         | 7.7%            | 8.5%           | \$616,641,943   | \$663,821,721   | \$697,509,615   | 7.7%         | 5.1%            | 13.1%          |
| 250           | \$453,384,657   | \$453,201,796   | \$488,196,178   | 0.0%         | 7.7%            | 7.7%           | \$432,159,676   | \$472,830,179   | \$492,149,975   | 9.4%         | 4.1%            | 13.9%          |
| 150           | \$341,382,152   | \$335,759,768   | \$361,770,617   | -1.6%        | 7.7%            | 6.0%           | \$325,197,752   | \$355,105,213   | \$367,209,288   | 9.2%         | 3.4%            | 12.9%          |
| 100           | \$269,375,968   | \$261,922,513   | \$282,448,120   | -2.8%        | 7.8%            | 4.9%           | \$256,579,739   | \$278,807,854   | \$287,170,579   | 8.7%         | 3.0%            | 11.9%          |
| 75            | \$225,480,440   | \$217,985,423   | \$235,167,110   | -3.3%        | 7.9%            | 4.3%           | \$214,917,409   | \$232,732,052   | \$239,128,048   | 8.3%         | 2.7%            | 11.3%          |
| 50            | \$171,942,003   | \$165,585,250   | \$178,660,548   | -3.7%        | 7.9%            | 3.9%           | \$164,374,704   | \$177,331,832   | \$181,767,621   | 7.9%         | 2.5%            | 10.6%          |
| 20            | \$80,415,906    | \$76,849,722    | \$82,951,373    | -4.4%        | 7.9%            | 3.2%           | \$77,157,634    | \$82,756,099    | \$84,765,901    | 7.3%         | 2.4%            | 9.9%           |
| 10            | \$32,986,954    | \$31,017,666    | \$33,575,223    | -6.0%        | 8.2%            | 1.8%           | \$30,884,608    | \$32,655,006    | \$33,578,825    | 5.7%         | 2.8%            | 8.7%           |

Annual Aggregate PMLs:

*RMS - Stochastic Hurricane View*

*RMS - Historical Hurricane View*

| Return Period         | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change | 11/1/2016 - v16 | 11/1/2016 - v17 | 11/1/2017 - v17 | Model Change | Exposure Change | Overall Change |
|-----------------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|-----------------|--------------|-----------------|----------------|
| 1,000                 | \$866,294,157   | \$863,203,437   | \$928,464,995   | -0.4%        | 7.6%            | 7.2%           | \$833,218,023   | \$838,436,225   | \$922,133,718   | 0.6%         | 10.0%           | 10.7%          |
| 500                   | \$660,881,623   | \$664,499,530   | \$715,724,699   | 0.5%         | 7.7%            | 8.3%           | \$633,239,484   | \$647,501,402   | \$715,111,237   | 2.3%         | 10.4%           | 12.9%          |
| 250                   | \$470,038,037   | \$468,821,912   | \$505,108,493   | -0.3%        | 7.7%            | 7.5%           | \$447,971,576   | \$457,084,298   | \$509,219,904   | 2.0%         | 11.4%           | 13.7%          |
| 150                   | \$356,182,284   | \$349,849,781   | \$377,023,368   | -1.8%        | 7.8%            | 5.9%           | \$339,257,556   | \$340,917,222   | \$382,543,052   | 0.5%         | 12.2%           | 12.8%          |
| 100                   | \$282,277,543   | \$274,244,897   | \$295,761,181   | -2.8%        | 7.8%            | 4.8%           | \$268,826,825   | \$266,371,626   | \$300,621,439   | -0.9%        | 12.9%           | 11.8%          |
| 75                    | \$236,958,245   | \$228,905,555   | \$246,965,999   | -3.4%        | 7.9%            | 4.2%           | \$225,779,763   | \$221,683,417   | \$251,044,592   | -1.8%        | 13.2%           | 11.2%          |
| 50                    | \$181,323,684   | \$174,386,470   | \$188,193,058   | -3.8%        | 7.9%            | 3.8%           | \$173,143,538   | \$168,475,787   | \$191,356,261   | -2.7%        | 13.6%           | 10.5%          |
| 20                    | \$85,080,951    | \$81,148,043    | \$87,620,773    | -4.6%        | 8.0%            | 3.0%           | \$81,422,835    | \$78,527,669    | \$89,351,337    | -3.6%        | 13.8%           | 9.7%           |
| 10                    | \$34,864,569    | \$32,681,170    | \$35,386,681    | -6.3%        | 8.3%            | 1.5%           | \$32,566,359    | \$31,028,723    | \$35,353,938    | -4.7%        | 13.9%           | 8.6%           |
| Average Annual Loss   | \$15,948,282    | \$15,348,928    | \$16,571,923    | -3.8%        | 8.0%            | 3.9%           | \$15,102,535    | \$15,413,838    | \$16,642,114    | 2.1%         | 8.0%            | 10.2%          |
| Standard Deviation    | \$69,917,306    | \$70,025,296    | \$75,333,181    | 0.2%         | 7.6%            | 7.7%           | \$66,605,721    | \$68,463,155    | \$73,704,131    | 2.8%         | 7.7%            | 10.7%          |
| 100 Yr PML:Premium    | 3.5             | 3.4             | 3.3             | -2.8%        | -1.6%           | -4.3%          | 3.3             | 3.4             | 3.4             | 3.8%         | -1.7%           | 2.1%           |
| Implied HU Loss Ratio | 20.6%           | 19.9%           | 19.6%           | -3.8%        | -1.5%           | -5.2%          | 19.5%           | 20.0%           | 19.7%           | 2.1%         | -1.5%           | 0.5%           |

Exposure Summary:

|                | 11/1/2016        | 11/1/2016        | 11/1/2017        |      |      |      |
|----------------|------------------|------------------|------------------|------|------|------|
| Total Limit    | \$18,350,842,955 | \$18,350,842,955 | \$20,090,066,621 | 0.0% | 9.5% | 9.5% |
| Premium        | \$77,253,784     | \$77,253,784     | \$84,686,199     | 0.0% | 9.6% | 9.6% |
| Policy Count   | 154,672          | 154,672          | 163,571          | 0.0% | 5.8% | 5.8% |
| Location Count | 195,052          | 195,052          | 206,947          | 0.0% | 6.1% | 6.1% |

Modeling Notes:

1. Demand surge ("loss amplification") is included.
2. Storm surge is excluded.

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