Louisiana Department of Insurance

CATASTROPHE MODEL INTERROGATORIES

Supplement to Bulletin No. 2013-04

June 10, 2013

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SECTION INDEX

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PART A

(to be completed by the insurance company)

Instructions: **Part A , the section labeled Insurer Certification and the section labeled General Information, should be completed by the insurer and must accompany the rate filing that contains rates based, in whole or in part, on any type of catastrophe modeling.**

Part A, section Hurricane Modeling Information only needs to be completed and submitted with a rate filing that contains rates based, in whole or in part, on a hurricane computer model. Part A includes exposure distribution information that should be provided to the LDI in an Excel spreadsheet.

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PART A – INSURER CERTIFICATION

Instructions: Type or print <u>except</u> where signature is requested.

I, _____, hereby certify that I am the
        (PRINT PERSON'S NAME)

_____ of _____ doing business
     (PERSON'S TITLE)   **(INSURANCE COMPANY OR GROUP)**

in the State of Louisiana and that I am authorized to make this certificate to the Louisiana Department of Insurance (LDI).

I hereby certify that responses to the LDI's Catastrophe Model Interrogatories, Part A subsection General Information and, if applicable, Part A subsection Hurricane Modeling Information are true and correct to the best of my knowledge.

This is the _____ day of _____, _____
       (NUMBER)   **(MONTH)**   **(YEAR)**

_____
           (SIGNATURE)

_____
     (INSURANCE COMPANY OR GROUP)

_____
           (ADDRESS)

_____
      (CITY, STATE, ZIP CODE)

_____
         (TELEPHONE)

_____
            (EMAIL)

PART A – GENERAL INFORMATION

Instructions: **This section should be completed by the insurer and must accompany a rate filing that contains rates based, in whole or in part, <u>on any type of catastrophe modeling</u>.**

"Qualifications" include, but are not limited to, designations in relevant professional groups, designations in relevant areas of study, model certifications and experience in relevant employment/areas of responsibility.

1. Filing reference for which modeled output is used:

    Insurance Company or Group: _____

    Line and/or Sub-Line: _____

    Filing Reference Number: _____

2. Provide a contact in your company responsible <u>for verifying the exposure data</u>.

    Name: _____

    Qualifications: _____

    Telephone: _____

    Email: _____

    Describe the process used to verify the model input (exposure data) including specific checks performed and validation or reference information used in the process.

3. Provide a contact in your company responsible <u>for verifying the model output</u>.

    Name: _____

    Qualifications: _____

    Telephone: _____

    Email: _____

PART A – GENERAL INFORMATION

< 3. continued>

Describe the process used to verify the model output including specific checks performed and validation or reference information used in the process.

4. In this rate filing, for which peril(s) is model output used to establish or support Louisiana insurance rates? (Check all that apply; note that more specific detail regarding the use of hurricane models will be covered in the remainder of Part A.)

☐ Hurricane   ☐ Hail

☐ Tropical Storm   ☐ Flood

☐ Tornado   ☐ Terrorism

☐ Severe Convective Storm   ☐ Severe Winter Storm

☐ Other Wind   ☐ Other (specify): _____

☐ Earthquake   ☐ Other (specify): _____

☐ Fire Following Earthquake   ☐ Other (specify): _____

PART A – HURRICANE MODELING INFORMATION

Instructions: This section should be completed by the insurer and must accompany a rate filing that contains rates based, in whole or in part, <u>on hurricane modeling</u>. This section is specific to a hurricane model.

If more than one hurricane model's output was used to support the filed rates, this section should be completed for each model, i.e., each combination of question 1 response.

All data distributions requested should be derived from the actual data used as input to the model. To the extent reasonable and particularly for the exposure profile (question 8), an Excel spreadsheet should be provided that contains requested information.

Definitions: Primary Amount of Insurance (AOI) is defined as the coverage A amount for homeowner policy types, coverage C amount for renter or condominium owner policy types, and aggregate property structure limits (across all structures listed on the policy's declarations page or listed on a schedule attached to the policy) for commercial policy types.

1. Whose model did you use in this filing? (Check one)

    ☐ AIR   ☐☐ EQE

    ☐ RMS   ☐☐ Other (specify): _____

    Model Name: _____

    Release Reference: _____

2. Who ran the model? (Check one)

    ☐ Company (Internally Run)   ☐ Reinsurer

    ☐ Modeler   ☐ Consultant

    ☐ Broker   ☐ Other (specify): _____

PART A – HURRICANE MODELING INFORMATION

3. Provide the following regarding input and output data for the model:

    a. What is the source of exposure data used as input to the model? (Check all that apply)

    ☐ Data is specific to the company making the rate filing

    ☐ Data is NOT specific to the company making the rate filing but is specific to the company's group

    ☐ Other (specify): _____

    If more than one box above is checked, explain why: _____

    _____

    _____

    _____

    b. What type of exposure data was used as input to the model and as of what date was that data evaluated? (Check one)

    ☐ In-Force: as of ____/____/____
                                                MM   DD   YY

    ☐ Policy Year: for the Period ____/____/____ through ____/____/____
                                                  MM   DD   YY   **MM   DD   YY**

    Enter relevant comments here: _____

    _____

    _____

    _____

    c. At what geographic level of detail was the exposure input data? Provide a percentage distribution based on the primary amount of insurance (AOI), not policy counts:

Structure's Actual Latitude/Longitude	_____%
Structure's Street Address	_____%
Structure's Zip Code	_____%
Structure's Parish	_____%
Other (specify):	_____%
TOTAL (within rounding)	100%

< 3.c. continued >

If the Structure's "street address" or "zip code" was used, did the company verify that these were for the physical location of the property and not a remote billing address?

☐ Yes, street address and zip code were verified to be the physical location of the property

☐ No, street address and zip code were NOT verified to be the physical location of the property

☐ Not known

☐ Other (specify): _____

_____

_____

_____

d. Were loss adjustment expense (LAE) adjustments applied by the filer to modeled output? (Also, refer to 4.d in this section.)

☐ Yes, LAE adjustments were made to exposure input data where
    the annualized percent used for LAE was: _____%

☐ Yes, LAE adjustments were made to model output data where
    the annualized percent used for LAE was: _____%

☐ No, LAE adjustments were NOT made to input or output data.

e. Were trend adjustments applied by the filer to modeled input or output? (Check all that apply)

☐ Yes, trend adjustments were made to model input exposure where
   • the input data was trended to the date of: ____/____/____ and
                                                 MM   DD   YY
   • the annualized percent used for trend was: _____%

☐ Yes, trend adjustments were made to model output losses where
   • the output loss was trended to the date of: ____/____/____ and
                                                  MM   DD   YY
   • the annualized percent used for trend was: _____%

☐ No trend adjustments were made to input or output data.

f. Attach relevant printed output produced by the model, e.g., reports with AAL and PML.

g. Were any other adjustments or factors applied to exposure input or actual modeled output not identified above?　　□ Yes　　□ No

If "Yes," provide relevant comments on adjustments here:

h. Does model output include estimates for additional living expense?　□ Yes　□ No

If "Yes," how is additional living expense exposure and loss estimated?

4. Indicate the settings that were used for model runs. (Check one for each item)

a. View / Frequency Rate / Sea Surface Temperature (SST):
    □ Long-Term
    □ Medium-Term
    □ Near-Term
    □ Other-Term (specify):

b. Catalog Size:　□ 10K　□ 50K　□ 100K
    □ Other (specify):
    □ Not applicable to this model

c. Modeled Output:　　　□ Expected Value (Average Annual Loss)
    □ Expected Value Plus Risk Load (Describe):

PART A – HURRICANE MODELING INFORMATION

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d. Loss Adjustment Expenses (LAE): ☐ Applied <u>by the model</u> to model output

(also, refer to 3.d in this section) Specify LAE as a percent of loss: _____ %

☐ NOT applied <u>by the model</u> to model output

e. Demand Surge (also known as Loss Amplification): ☐ On

☐ Off

☐ Not Available

f. Storm Surge: ☐ On but it is not known at what potential/percentage

☐ On At Full Potential (100%)

☐ On but at less than 100% of Full Potential (state percent: _____ %)

☐ Off

☐ Other (Describe): _____

g. Relevant comments or description of other custom options or non-standard settings used:

_____

_____

_____

h. Provide a copy of the model analysis options/settings report that generated the model output to which this interrogatory applies. This report is a listing of all available user-controlled model options and how each option was set when the model was run, e.g., Demand Surge was either "on" or "off." If run by a third party, this report may be available from the third party. Note that this report may not be available for every model or model version.

☐ Attached

☐ <u>Not</u> attached and <u>not</u> available

☐ <u>Available</u> but <u>not</u> attached

☐ Do not know if such a report is available

5. a. For this filing, which of the following were accomplished using the referenced hurricane model (see questions 1 and 2 above; check all that apply)?

☐ Generated ground-up (net of policy deductible) losses for Louisiana
☐ Generated ground-up (net of policy deductible) losses for territories within Louisiana
☐ Generated reinsurance recoveries for Louisiana
☐ Generated reinsurance recoveries for territories within Louisiana

PART A – HURRICANE MODELING INFORMATION

b. What allocation method was used to allocate reinsurance costs from a multi-state basis to a Louisiana-specific basis and/or territories within Louisiana (check one):

□ Used ground-up losses
□ Used reinsurance recoveries
□ Allocation from a multi-state basis was not applicable in this filing
□ Another allocation method was used (Describe):

c. Relevant comments regarding responses to 10.a and b. above:

6. Is this model the <u>only</u> model used to support the proposed hurricane rates in the company's rate filing?

□ Yes   □ No

If "No", provide a detailed explanation, including formulas, regarding how the two (or more) models were combined to support the proposed rates.

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7. Property Valuation Method: For 7.a. through 7.c., provide a profile of your property valuation method using a percentage distribution (based on AOI, not policy counts). Each row must sum to 100% within rounding.

	Property Valuation Method			
Insured Property	Replacement Cost Value	Actual Cash Value	Assumed No Value	Total
a. Building	___ %	___ %	___ %	100%
b. Appurtenant structure	___ %	___ %	___ %	100%
c. Contents of structure	___ %	___ %	___ %	100%

   d. If used, provide a description of the methodology used to estimate replacement costs:

   If applicable, provide a description of the methodology used to estimate actual cash value:

8. Input Coding Methods: For each of the following exposure attributes (8.a. through 8.o.) that could be used as input to the hurricane model, provide the input coding method using a percentage distribution based on AOI, not policy counts. Each row must sum to 100% within rounding.

Input Field's Coding Method

Exposure Field	Company Data Used	Company Assumptions Used	Value Unknown (Company Data Available but Not Used)	Value Unknown (No Company Data)	Total
a. Construction	___ %	___ %	___ %	___ %	100%
b. Occupancy	___ %	___ %	___ %	___ %	100%
c. Year structure built	___ %	___ %	___ %	___ %	100%
d. Number of stories	___ %	___ %	___ %	___ %	100%
e. Age of roof covering	___ %	___ %	___ %	___ %	100%
f. Roof shape	___ %	___ %	___ %	___ %	100%
g. Roof covering	___ %	___ %	___ %	___ %	100%

PART A – HURRICANE MODELING INFORMATION

< 8. Continued >

h. Secondary water resistance	___ %	___ %	___ %	___ %	100%
i. Roof cladding attachment	___ %	___ %	___ %	___ %	100%
j. Roof anchorage	___ %	___ %	___ %	___ %	100%
k. Window protection	___ %	___ %	___ %	___ %	100%
l. Tie downs (Manufactured Housing)	___ %	___ %	___ %	___ %	100%
m. Foundation to wall restraint	___ %	___ %	___ %	___ %	100%
n. Built to IBHS requirements	___ %	___ %	___ %	___ %	100%
o. Built to LSUCC requirements	___ %	___ %	___ %	___ %	100%

Definitions:

Company Data Used – Company collects specific data on this attribute and used this data, without modification, to populate the exposure file.

Company Assumptions Used – Company either does not collect specific data on this attribute but determined a value for the attribute by other means or the company modified the actual company data collected to determine a specific value for the attribute; the company used this data to populate the exposure file.

Value Unknown (Company Data Available but Not Used) – Company collects specific data on this attribute during the policy underwriting/rating/issuance process but the company does not populate the exposure file with that data; i.e., the exposure file is populated with a null or "unknown" value for this attribute.

Value Unknown (No Company Data) – Company does not collect data on this attribute; i.e., the exposure file is populated with a null or "unknown" value for this attribute.

IBHS – Institute for Business and Home Safety

LSUCC - Louisiana State Uniform Construction Code

If the column labeled "Company Assumptions Used" was marked for any of the exposure attributes above (8.a. through 8.o.), provide a description of the assumptions that were made to populate the exposure file with known values:

_____

_____

_____

_____

< 8. Continued >

If the column labeled "Value Unknown (Company Data Available but Not Used)" was marked for any of the exposure attributes above (8.a. through 8.o.), provide an explanation why null or "unknown" values were used in the exposure file when company data was available for the exposure attribute:

9. Exposure Profile: The following exposure distributions (9.a. through 9.r.) should be provided to the LDI in an Excel spreadsheet format where each distribution is a separate worksheet and labeled appropriately, e.g., "Geographic Location by Parish." This profile should be derived from the actual data used as input to the hurricane model producing output used as support in this rate filing.

Note that 9.a. requests a percentage distribution based policy counts while 9.b. through 9.r. requests percentage distributions based on AOI.

a. For the following table, **provide a policy count percentage distribution** for each AOI category by policy type.

		Policy Count Distribution		
AOI Category		Homeowners/ Dwelling	Renter/ Condo Owner	Commercial Policy Types
$0K	< AOI <= $25K	_____%	_____%	_____%
$25K	< AOI <= $50K	_____%	_____%	_____%
$50K	< AOI <= $75K	_____%	_____%	_____%
$75K	< AOI <= $100K	_____%	_____%	_____%
$100K	< AOI <= $150K	_____%	_____%	_____%
$150K	< AOI <= $200K	_____%	_____%	_____%
$200K	< AOI <= $250K	_____%	_____%	_____%
$250K	< AOI <= $300K	_____%	_____%	_____%
$300K	< AOI <= $400K	_____%	_____%	_____%
$400K	< AOI <= $500K	_____%	_____%	_____%
$500K	< AOI <= $750K	_____%	_____%	_____%
$750K	< AOI <= $1,000K	_____%	_____%	_____%
$1,000K	< AOI <= 2,500K	_____%	_____%	_____%
$2,500K	< AOI <= 5,000K	_____%	_____%	_____%
$5,000K	< AOI <= 10,000K	_____%	_____%	_____%
$10,000K	< AOI <= Unlimited	_____%	_____%	_____%
Unknown		_____%	_____%	_____%
TOTAL (within rounding)		_____%	_____%	_____%

< 9.a. continued >

Also, provide the actual dollar value for each of the following AOI categories by policy type.

AOI Category	Homeowners/ Dwelling	Renter/ Condo Owner	Commercial Policy Types
Average AOI in Exposure Data Set:	$_____	$_____	$_____
Lowest AOI in Exposure Data Set:	$_____	$_____	$_____
Highest AOI in Exposure Data Set:	$_____	$_____	$_____

b. Geographic Location by Parish[1]

For the following parishes (coastal and non-coastal), **provide the aggregated dollars of the AOI** used as input to the model. Table 9.b. categorizes AOI by parish for policy types homeowner/dwelling, renter condominium and commercial. If parish data is not readily available, a distribution by zip code is acceptable (just substitute zip code for parish in the table below).

Definitions: Coastal For the purpose of completing the parish distribution below, "coastal" has the traditional industry definition for Louisiana and approximates each portion of the ten parishes lying south of the Intracoastal Waterway or outside the protective levee system. A more precise description of the "Coastal" areas for the ten Louisiana coastal parishes follows:

- **Cameron** - That portion of Cameron Parish lying west of Calcasieu Lake, and south of the northern boundary of Sabine Migratory Waterfowl Refuge and the portion east of Calcasieu Lake south of Sweet Lake Canal and Intracoastal Waterway.

- **Iberia** - That portion of Iberia parish lying south of Intracoastal Waterway.

- **Jefferson** - That portion of Jefferson Parish lying south of Intracoastal Waterway, Algiers canal not Harvey Canal.

- **Lafourche** - That portion of Lafourche parish lying south of Intracoastal Waterway, which includes communities of Larose, Cutoff, Clovelly Farms, Galliano, Golden Meadow & Leeville.

- **Orleans** - That portion of Orleans Parish lying outside of the Protective Levee System.

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[1] In Louisiana, "parish" is equivalent to the "county" designation used in most other states.

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- **Plaquemines** - That portion of Plaquemines parish lying outside the Protective Levee System of Belle Chasse, Ollie, Scarsdale, Braithwaite and Belair Drainage Districts, which includes the communities of Ironton, Myrtle Grove, Diamon, Happy Jack, Potash, Port Sulphur, Homeplace, Narin, Empire, Buras, Triumph, Boothville, Venice, Pilottown, Ostrica, Bohemia, Pointe a La Hache, Davant, Phoenix and Carlisle.

- **St. Bernard** - That portion of St. Bernard parish lying outside the Protective Levee System which includes communities of Reggio, Delacroix, Alluvial, Yscloskey, Shell Beach and Hopedale.

- **St. Mary** - That portion of St. Mary Parish lying south of the Intracoastal Waterway.

- **Terrebonne** - That portion of Terrebonne Parish lying south of Intracoastal Waterway, except areas within city limits of Houma which includes communities of Ashland, Boudreaux, Chauvin, Cocodrie, Crozier, Dulac, Lapeyrouse, Montegut, Mulberry, Point Barre, Sunrise and Theriot.

- **Vermilion** - That portion of Vermilion parish lying south of the Intracoastal Waterway.

Non-Coastal: For the purposes of completing the parish distribution below, the ten "non-coastal" parishes are defined as each part of the parish which is not "coastal."

Distribution of AOI by Parish			
Parish	Homeowner/ Dwelling Owner	Renter/ Condominium Owner	Commercial Policy Types
Acadia	$	$	$
Allen	$	$	$
Ascension	$	$	$
Assumption	$	$	$
Avoyelles	$	$	$
Beauregard	$	$	$
Bienville	$	$	$
Bossier	$	$	$
Caddo	$	$	$
Calcasieu	$	$	$
Caldwell	$	$	$
Cameron (Non-Coastal)	$	$	$
Catahoula	$	$	$
Claiborne	$	$	$

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Distribution of AOI by Parish			
Parish	**Homeowner/ Dwelling Owner**	**Renter/ Condominium Owner**	**Commercial Policy Types**
Concordia	$	$	$
De Soto	$	$	$
East Baton Rouge	$	$	$
East Carroll	$	$	$
East Feliciana	$	$	$
Evangeline	$	$	$
Franklin	$	$	$
Grant	$	$	$
Iberia (Non-Coastal)	$	$	$
Iberville	$	$	$
Jackson	$	$	$
Jefferson (Non-Coastal)	$	$	$
Jefferson Davis	$	$	$
Lafayette	$	$	$
Lafourche (Non-Coastal)	$	$	$
La Salle	$	$	$
Lincoln	$	$	$
Livingston	$	$	$
Madison	$	$	$
Morehouse	$	$	$
Natchitoches	$	$	$
Orleans (Non-Coastal)	$	$	$
Ouachita	$	$	$
Plaquemines (Non-Coastal)	$	$	$
Pointe Coupee	$	$	$
Rapides	$	$	$
Red River	$	$	$
Richland	$	$	$
Sabine	$	$	$
St. Bernard (Non-Coastal)	$	$	$
St. Charles	$	$	$
St. Helena	$	$	$
St. James	$	$	$
St. John The Baptist	$	$	$
St. Landry	$	$	$
St. Martin	$	$	$
St. Mary (Non-Coastal)	$	$	$
St. Tammany	$	$	$
Tangipahoa	$	$	$
Tensas	$	$	$

Distribution of AOI by Parish

Parish	Homeowner/ Dwelling Owner	Renter/ Condominium Owner	Commercial Policy Types
Terrebonne (Non-Coastal)	$	$	$
Union	$	$	$
Vermilion (Non-Coastal)	$	$	$
Vernon	$	$	$
Washington	$	$	$
Webster	$	$	$
West Baton Rouge	$	$	$
West Carroll	$	$	$
West Feliciana	$	$	$
Winn	$	$	$
Cameron (Coastal)	$	$	$
Iberia (Coastal)	$	$	$
Jefferson (Coastal)	$	$	$
Lafourche (Coastal)	$	$	$
Orleans (Coastal)			
Plaquemines (Coastal)	$	$	$
St. Bernard (Coastal)	$	$	$
St. Mary (Coastal)	$	$	$
Terrebonne (Coastal)	$	$	$
Vermilion (Coastal)	$	$	$
PARISH UNKNOWN	$	$	$
TOTALS	$	$	$

For each of the following exposure attributes (9.c. through 9.r.), profile the data used as input to the hurricane model by using a percentage distribution (based on AOI, not policy counts) for the listed attributes. If you use additional/other categories, list them as needed.

c. Identify Ex-Wind policies in your input data:

Policies with combined wind and other peril coverage   _____%
Policies with wind-only coverage   _____%
Policies with other peril coverage but excluding wind   _____%
Total (within rounding)   100%

d. Policy Deductible:

For each of the all peril deductible and special hurricane/named storm/wind and hail deductible combinations in **Matrix 9.d.**, provide a percentage distribution based on AOI (not policy counts) used as input to the model. If you use deductible categories not listed, add them as needed.

PART A – HURRICANE MODELING INFORMATION

< 9.d. continued >

If the all peril deductible and the special hurricane/named storm/wind and hail deductible are the same, slot the all peril deductible in the appropriate category but categorize the special hurricane/named storm/wind and hail deductible as "None (0)." If there are other coverage/peril specific deductibles on the policy, for example a $100 all peril deductible is paired with a higher $250 theft deductible, ignore the specific coverage/peril deductible (in this case the theft deductible) and use the broader all peril deductible to categorize the exposure in the matrix column labeled "Policy All Peril Deductible". If there are multiple wind-specific deductibles impacting wind loss, for example a $2,500 wind and hail deductible with a 5% hurricane deductible, use the higher of the policy's wind-specific deductibles to categorize the exposure in the matrix columns under the label "Policy Hurricane/Named Storm/Wind & Hail Deductible."

The matrix total should sum to 100% within rounding.

| Matrix 9.d. | Special Policy Hurricane / Named Storm / Wind & Hail Deductible | | | | | | | | | | | | | | | | | | | | | | |
Policy All Peril Deductible ↓	None ($0)	$250	$500	$1,000	$1,500	$2,000	$2,500	$3,000	$4,000	$5,000	$10,000	1%	2%	3%	4%	5%	10%	15%	Other 1 (specify)	Other 2 (specify)	Other 3 (specify)	Unknown	Row Totals
None ($0)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$100	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$250	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$500	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$1,000	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$2,000	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$2,500	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$5,000	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
$10,000	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
½%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
2%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
3%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
4%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
5%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
10%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
15%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Other 1 (specify)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Other 2 (specify)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Other 3 (specify)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Unknown	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Column Totals	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	100%

PART A – HURRICANE MODELING INFORMATION

---

e. Construction:

Wood frame	_____%
Wood frame with masonry veneer	_____%
Unreinforced masonry	_____%
Reinforced masonry	_____%
Masonry (unspecified)	_____%
Concrete	_____%
Steel	_____%
Light metal	_____%
Mobile Home (unknown tie-down)	_____%
Mobile Home (with tie-down)	_____%
Mobile Home (no tie-down)	_____%
Other 1:_____	_____%
Other 2:_____	_____%
Other 3:_____	_____%
Unknown	_____%
Total (within rounding)	100%

f. Occupancy (all subtotals and total within rounding):

1) Owner occupied structure:

Single-family dwelling	_____%
Multi-family dwelling	_____%
Condominium	_____%
Mobile Home	_____%
Other 1: _____	_____%
Unknown	_____%
Subtotal for 9.f.1)	_____%

2) Non-owner occupied structure:

Single-family dwelling	_____%
Multi-family dwelling	_____%
Condominium	_____%
Mobile Home	_____%
Other 1: _____	_____%
Unknown	_____%
Subtotal for 9.f.2)	_____%

3) Renter (no structure, contents only):

Single-family dwelling	_____%
Multi-family dwelling	_____%
Condominium	_____%
Mobile Home	_____%
Other 1: _____	_____%
Unknown	_____%
Subtotal for 9.f.3)	_____%

4) Commercial structure:

Business	_____%
Farm	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Unknown	_____%
Subtotal for 9.f.4)	_____%

5) Other occupancy categories (but not unknown):

Single-family dwelling	_____%
Multi-family dwelling	_____%
Condominium	_____%
Mobile Home	_____%
Other 1: _____	_____%
Unknown	_____%
Subtotal for 9.f.5)	_____%

6) Occupancy Unknown:

Single-family dwelling	_____%
Multi-family dwelling	_____%
Condominium	_____%
Mobile Home	_____%
Other 1: _____	_____%
Unknown	_____%
Subtotal for 9.f.6)	_____%

Total 9.f.1)–9.f.6) within rounding   100 %

g. Year structure built:

<= 1900	_____ %
1901	_____ %
1902	_____ %
1903	_____ %
1904	_____ %
•	
•	
•	
2009	_____ %
2010	_____ %
2011	_____ %
2012	_____ %
2013	_____ %
2014	_____ %
2015	_____ %
•	
•	
•	
Unknown	_____ %
Total (within rounding)	100%

h. Number of stories:

1	_____ %
2	_____ %
3	_____ %
4 to 7	_____ %
8 to 14	_____ %
15+	_____ %
Unknown	_____ %
Total (within rounding)	100%

i. Age of Roof Covering:

0 to 5 years	_____ %
6 to 10 years	_____ %
11 to 15 years	_____ %
16 to 20 years	_____ %
More than 20 years	_____ %
Unknown	_____ %
Total (within rounding)	100%

PART A – HURRICANE MODELING INFORMATION

j. Roof shape:

Unbraced gable _____%
Braced gable _____%
Total hip (entire roof structure) _____%
Partial hip (at least 50% hip roof) _____%
Mansard _____%
Gambrel _____%
Flat _____%
Shed _____%
Complex _____%
Other 1:_____ _____%
Other 2:_____ _____%
Other 3:_____ _____%
Unknown _____%
Total (within rounding) 100%

k. Roof covering type:

Normal asphalt shingles _____%
Wind resistance rated shingles* _____%
Concrete or clay tiles (not rated) _____%
Wind resistance rated
    concrete or clay tiles _____%
Wood shingles _____%
Built-up roof _____%
Single-ply membrane _____%
Slate _____%
Concrete _____%
Metal panels or sheathing _____%
Other 1:_____ _____%
Other 2:_____ _____%
Other 3:_____ _____%
Unknown _____%
Total (within rounding) 100%

NOTES: * Passed either ASTM D3161 or ASTM D7158

PART A – HURRICANE MODELING INFORMATION

l.   Secondary water resistance:

None	_____%
Self-adhering strips on top of roof deck	_____%
Spray foam on underside of roof deck	_____%
Continuous sheets on top of roof deck	_____%
Other 1:_____	_____%
Other 2:_____	_____%
Other 3:_____	_____%
Unknown	_____%
Total (within rounding)	100%

m.   Roof cladding attachment:

6d nails w/ unknown nailing schedule	_____%
6d nails @ high wind nailing schedule (typically 4" panel edges, 6" interior)	_____%
8d nails w/ unknown nailing schedule	
8d nails @ high wind nailing schedule (typically 4" panel edges, 6" interior)	_____%
10d nails w/ unknown nailing schedule	_____%
10d nails @ high wind nailing schedule (typically 4" panel edges, 6" interior)	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Unknown	_____%
Total (within rounding)	100%

n.   Roof anchorage (roof to wall connection):

None (gravity/friction)	_____%
Toe nailing	_____%
Adhesive epoxy	_____%
Anchor bolts	_____%
Clips (not wind resistance rated)	_____%
Single wraps (not wind resistance rated)	_____%
Double wraps (not wind resistance rated)	_____%
Wind rated hurricane ties/straps	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Unknown	_____%
Total (within rounding)	100%

PART A – HURRICANE MODELING INFORMATION

o. Window protection:

None	_____%
Temporary shutters (plywood or OSB)	_____%
Non-engineered shutter	_____%
Wind resistance rated shutter*	_____%
Impact resistant glass*	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Unknown	_____%
Total (within rounding)	100%

* Passed one of the following cyclic loading and windborne debris impact tests: (ASTM E 1886 and ASTM E 1996) or (Miami-Dade TAS 201 and TAS 203).

p. Foundation to wall restraint:

None (Gravity/Friction)	_____%
Nails/Screws	_____%
Straps or ties (not wind resistance rated)	_____%
Anchor bolts (not wind resistance rated)	_____%
Restraints consistent with LSUCC	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Total (within rounding)	100%

q. Built to IBHS fortified requirements or state building code:

None	_____%
Hurricane fortified bronze	_____%
Hurricane fortified silver	_____%
Hurricane fortified gold	_____%
Fortified for safer living hurricane	_____%
Louisiana state uniform construction code	_____%
Other 1: _____	_____%
Other 2: _____	_____%
Other 3: _____	_____%
Unknown	_____%
Total (within rounding)	100%

r. Tie-downs (note: mobile homes are also known as "manufactured structures"):

NOT a manufactured structure   _____%
Manufactured structure <u>with</u> tie-downs   _____%
Manufactured structure <u>without</u> tie-downs   _____%
Unknown   _____%
Total (within rounding)   100%

PART B

(to be completed by the modeling company)

Instructions: **Part B applies only to a model estimating hurricane loss. Part B should be completed by the modeler and must already be on file with the LDI or accompany a rate filing that contains rates based, in whole or in part, on hurricane computer modeling.**

When preparing any of the loss analyses requested in Part B, unless stated otherwise, the results should be calculated as baseline loss estimates in which analysis settings are "Off" or in a standard setting, including Demand Surge (i.e., Loss Amplification) set to "Off," Storm Surge set to "Off,", uses 50K or Standard Catalog Size, Loss Adjustment Expense set to "Off,", and uses Long-Term Frequency Rates.

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PART B – MODELER CERTIFICATION

Instructions: **Type or print <u>except</u> where signature is requested. This certification only attests to Catastrophe Model Interrogatories, Part B responses.**

I, _____, hereby certify that I am the
<div align="center">(PRINT NAME)</div>

_____ of _____ and that I am authorized
<div align="center">(PRINT TITLE)   (PRINT MODEL COMPANY)</div>

to make this certificate. I hereby certify to the Louisiana Department of Insurance (LDI) that my responses to the LDI's Catastrophe Model Interrogatories, Part B, are true and correct to the best of my knowledge.

The model for which this certificate applies is identified as:

Name of Model: _____

Model Release Reference: _____

Date of Model Release or Last Revised: ____/_____/_____
<div align="center">MM   DD   YY</div>

Stochastic Catalog Reference: _____
<div align="center">(e.g.: Catalog Size, Near Term or Long Term, etc.)</div>

This is the _____ day of _____, _____
<div align="center">(NUMBER)   (MONTH)   (YEAR)</div>

_____
<div align="center">(SIGNATURE)</div>

_____
<div align="center">(ADDRESS)</div>

_____
<div align="center">(CITY, STATE, ZIP CODE)</div>

_____
<div align="center">(EMAIL)</div>

_____
<div align="center">(TELEPHONE)</div>

PART B – MODELER CERTIFICATION

Instructions: **Type or print <u>except</u> where signature is requested. This certification only attests to Catastrophe Model Interrogatories, Part B responses.**

I, _____, hereby certify that I am the
<div align="center">(PRINT NAME)</div>

_____ of _____ and that I am responsible
<div align="center">(PRINT TITLE)   (PRINT MODEL COMPANY)</div>

for verifying the reasonability and reliability of the model loss estimates for use in the state of Louisiana. I have reviewed and verified the model output and hereby certify that the model loss estimates are appropriate for use in the state of Louisiana. The process I used to verify the model output is described below.

This is the _____ day of _____, _____.
<div align="center">(NUMBER)   (MONTH)   (YEAR)</div>

_____
<div align="center">(SIGNATURE)</div>

_____
<div align="center">(ADDRESS)</div>

_____
<div align="center">(CITY, STATE, ZIP CODE)</div>

_____
<div align="center">(EMAIL)</div>

_____
<div align="center">(TELEPHONE)</div>

Describe how the reasonability of model output was verified. Include specific checks that were performed and validation data sources used in the analysis.

_____

_____

_____

_____

PART B – GENERAL INFORMATION

Instructions: **When preparing the loss analyses requested in Part B, unless stated otherwise the results should be calculated as baseline loss estimates in which analysis settings are "Off" or in a standard setting, including Demand Surge (i.e., Loss Amplification) set to "Off," Storm Surge set to "Off,", uses 50K or Standard Catalog Size, Loss Adjustment Expense set to "Off,", and uses Long-Term Frequency Rates. If available, provide a copy of the model analysis options/settings report used to generate the model output.**

1. List the names of up to three key technical staff and indicate which component they worked on. For model update submissions, list up to three key technical staff that participated in the update. Use the format of **Exhibit A** and **Exhibit B**. If the modeler does not provide contact information for all key technical contributors, provide at least one overall contributor (per component) for this purpose.

2. A model is a commercial software application. As such, please respond to the following:

   a. ☐ Yes ☐ No Has a "requirements document" been written for this model?

   b. ☐ Yes ☐ No Has a "specification document" been written for this model?

   c. ☐ Yes ☐ No Has a "user's guide" been published to aid clients in using or running

   d. ☐ Yes ☐ No Has a "test specification" been written for this model?

   e. ☐ Yes ☐ No Has the model's software code been tested?

   f. ☐ Yes ☐ No Have revisions or corrections to the model's software code been made since the model was first made available to your clients?

      If "Yes," continue with i. through v. below.

      i. Explain the process by which model revisions or corrections are identified, reported, and coded.

      _____

      _____

      ii. Explain how revised releases of the model are released to clients.

      _____

      _____

iii. Explain how a client would recognize which model release produced specific model output.

iv. Explain how a client would know the exact model settings used to produce specific model output.

v. Provide the historical release and revision summary for the model since its first release to clients. Use the report format of **Exhibit C**.

g. In what year was the model first used in ratemaking? _____ (approximately)

(YEAR)

h. ☐ Yes   ☐ No   Has the model been reviewed by any other state insurance department?

If "Yes," list the states and the reviewer.

STATE	REVIEWER	YEAR REVIEWED
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. ☐☐ Yes   ☐ No   Has the current model version been independently peer reviewed by experts not involved in the development of or any update to the model? If so, attach documentation for the two most recent peer reviews relevant to the current model version and complete **Exhibit D** for all peer reviews.

☐ Yes   ☐ No   Are there any unresolved or outstanding issues resulting from these reviews? Please explain each.

PART B – GENERAL INFORMATION

4. The following interrogatories explore whether the model is capable of addressing and adjusting loss estimates for specific insurance considerations. A "Yes" response does not mean that a specific model run actually adjusted for the item but does mean that the model could have, if given data coded for the item, adjusted for the item.

If the model release to which these interrogatories apply (the "current model" release) is a revision to the last model release previously filed with the LDI (the "last model" release), indicate if the current model includes changes attributable to the listed consideration by putting a "Yes" in the "Changed Since Last Submission?" box next to the consideration.

Yes	No	Changed Since Last Submission?	Is the current version of the hurricane model capable of adjusting estimated hurricane loss due to or in consideration of …
			The stated policy amount of insurance for the structure?
			The structure's contents?
			Appurtenant structure loss?
			Additional living expense loss?
			Business interruption loss?
			All peril policy deductibles?
			Differences in construction materials, e.g., frame vs. masonry vs. other types?
			Manufactured home construction (e.g., mobile home)?
			Separate wind, hurricane or named storm deductibles?
			The effect on expected loss due to existing or proposed reinsurance contracts?
			Coverage differences for various homeowner policy forms, e.g., HO-1 vs. HO-3?
			Coverage differences for various dwelling fire/EC forms, e.g., DW-1 vs. DW-3?
			Condominium policy form?
			Renter policy form?
			Mobile home/manufactured home policy forms?
			Business owner's policy forms?
			Farm owner's policy forms?
			Other commercial property policy forms?
			Flood loss covered by the National Flood Insurance Program?
			Flood loss not covered by the National Flood Insurance Program?
			Personal inland marine policy forms, floaters, endorsements, or schedules?
			Commercial inland marine policy forms, floaters, endorsements, or schedules?
			Boat policy forms?
			Personal automobile policy forms?
			Commercial automobile policy forms?
			Multi-story structures?
			Loss attributable to underinsured structures?
			Loss attributable to over-insured structures?
			Loss attributable to public structures?
			Non-property loss, e.g., liability, life, health, workers' compensation?

PART B – GENERAL INFORMATION

< 4. continued >

Yes	No	Changed Since Last Submission?	Is the current version of the hurricane model capable of adjusting estimated hurricane loss due to or in consideration of …
			Loss attributable to industry pools, e.g. FAIR Plan or Coastal Plan? If these losses can be calculated and allocated to a third party client's estimated loss, e.g., as an assessment, explain how it is included: _____
			The impact of any loss mitigation measures? If "Yes," list specific mitigation measures the current model can take into account that impacts estimated loss, e.g., hurricane shutters or mobile home tie downs: _____
			A structure built to IBHS standards?
			A structure built to Louisiana Uniform Construction Code (LSUCC) standards?
			Demand Surge (or Loss Amplification), i.e., an increase in construction costs due to temporary increased demand for limited construction resources? If "Yes," explain how Demand Surge is included: _____
			Risk, e.g., a load added to estimated loss based on loss variance calculations or the need to attract risk capital? If "Yes," explain how this is included: _____
			Cash value policy provisions? If "Yes," please explain how this is handled : _____
			Replacement cost policy provisions? If "Yes," please explain how this is handled : _____
			Is the client's actual exposure profile always used in the determination of modeled loss costs? If "No," explain the alternate source of exposure underlying modeled output: _____

PART B – GENERAL INFORMATION

< 4. continued >

Yes	No	Changed Since Last Submission?	Is the current version of the hurricane model capable of adjusting estimated hurricane loss due to or in consideration of …
			Does the model project exposure data to a future policy period? If "Yes," to what period was data projected? ____/____/____ (MM/DD/YY). And, if "Yes," explain how this projection is made:
			Does the model project loss or expense data to a future policy period? If "Yes," to what period was data projected? ___/___/___ (MM/DD/YY) And if "Yes," explain how this projection is made:
			Can model output include provisions for loss adjustment expense? If "Yes," select from the following: _____All LAE _____ ALAE only _____ ULAE only Explain how any LAE is included in the modeled output:

5. Identify the current Zip Code database used by the model including the effective (official United States Postal Service) date.

_____   _____

      (Zip Code Database Name)   (Effective Date)

6. ☐ Yes   ☐ No   Are Zip Code centroids population-weighted?

   a. If "Yes," describe the process used to calculate the population-weighted centroids.

b. If "Yes," describe the process used to validate the centroid information.

7. Provide an overview of model operation including each component of the model used to estimate loss costs in the state of Louisiana. For an initial model submission the overview should include a description of the methodology for each model component. During model updates this overview should clearly indicate which components and methodologies remain unchanged, and explicitly define which components and methodologies have been modified.

8. List and describe the variables and assumptions that support each model component. List data sources for these variables. For model updates, identify every component and variable that has been modified in a way that will result in a change to statewide zero deductible loss costs. For components and/or variables that have been modified, give specific descriptions of the change to the methodology and the data supporting the change. Use **Exhibit E**.

PART B – METEOROLOGICAL COMPONENT

Instructions: **For reference in this section, coordinates used to define the state of Louisiana are provided as a note in Exhibit G.**

1. a. List the historical storms making landfall in the state of Louisiana you used in estimating hurricane losses in Louisiana. Use the format of **Exhibit F**.

   b. List source(s) for each parameter for the historical storms in **Exhibit F**. If this is an update, highlight any new storms or storm parameters that have changed since the last submission.

2. Provide annual frequencies for historical storms affecting Louisiana and modeled storms in the format of **Exhibit G**. Assign Saffir-Simpson category based on wind speed.

3. For the following storm parameters, as they relate to Louisiana landfalls, provide summary data for stochastic storm parameter values. If a specified parameter is not applicable to your model, explain and/or provide summary data for an appropriate surrogate parameter. Graphs of the data will be helpful.

   a. Table of central pressures, (or pressure differences). Use the format of **Exhibit H**.

      ☐ Yes   ☐ No   Does the model contain a minimum central pressure for a Louisiana landfall?

      If "Yes," what is the minimum central pressure? _____mb

      ☐ Yes   ☐ No   Does the model contain a maximum central pressure for a Louisiana landfall?

      If "Yes," what is the maximum central pressure? _____mb

   b. Table of radius of maximum winds. Use the format of **Exhibit I**.

      i. ☐ Yes   ☐ No   Does the model contain a minimum radius of maximum winds for a Louisiana landfall?

      If "Yes," what is the minimum radius of maximum winds? _____miles

      ii. ☐ Yes   ☐ No   Does the model contain a maximum radius of maximum winds for a Louisiana landfall?

      If "Yes," what is the maximum radius of maximum winds?   _____miles

c. Table of forward speeds. Use the format of **Exhibit J**.

    i.   □ Yes   □ No   Does the model contain a minimum forward speed for a Louisiana landfall?

        If "Yes," what is the minimum forward speed? _____mph

    ii.   □ Yes   □ No   Does the model contain a maximum forward speed for a Louisiana landfall?

        If "Yes," what is the maximum forward speed? _____mph

d. Table of max wind speeds over land. Use the format of **Exhibit K**.

    □ Yes   □ No   Does the model contain a max WS over land for a Louisiana landfall?

      If "Yes," what is the max WS over land? _____mph

e. Provide an example of the model decay rates over constant average land roughness based on the following parameters: forward speed – 14 mph; Rmax – 25 statute mi; max wind speed at LF – 140 mph. If model decay rates are determined stochastically, complete the exhibit for the mean, 10th, and 90th percentiles. Use the format of **Exhibit L**.

4. □ Yes   □ No   Are gust factors used in the model? If "Yes," describe how and cite relevant sources.

_____

_____

_____

_____

5. □ Yes   □ No   Are terrain factors used in the model? If "Yes," describe how and cite relevant sources.

_____

_____

_____

_____

6. a. For the stochastic storm set provide on CD-ROM a completed **Exhibit M** containing the 100 year 1-minute sustained wind speed by zip code for modeled open terrain and modeled actual terrain. Provide color maps of the wind speeds reported in **Exhibit M** using the following bins and colors (slight variation in colors is acceptable):

Modeled 100 Year 1-Minute Sustained Wind Speed	
	<50 mph
	51 to 65 mph
	66 to 80 mph
	81 to 95 mph
	96 to 110 mph
	111 to 125 mph
	126 to 140 mph
	>140 mph

  b. Identify the maximum wind speed plotted on each map and plot the location.

  Note: Modeled "actual" terrain is the surface roughness utilized in the vendor model. Modeled "open" terrain corresponds to utilizing a constant roughness value of 0.03 meters at all locations.

PART B – VULNERABILITY COMPONENT

Instructions: **This section investigates the vulnerability component including the modeled impact due to mitigation measures.**

1. a. ZIP code wind speeds have been provided for a hypothetical track in the file LDI_Track_2013.xlsx. Assume the wind speeds provided are one-minute sustained 10-meter wind speeds that apply to the population centroid for each ZIP code. Do not make any corrections or adjustments to the wind speeds provided to account for surface roughness. Model the representative structure types identified in the LDI_Exp_2013.xlsx file against these wind speeds and complete the table in **Exhibit N**. Provide the ground-up loss estimates for building coverage only; do not include contents, appurtenant structures, or time element coverages.

   b. If it is necessary to adjust the averaging time of the wind speeds provided, please describe the process used to adjust the wind speeds. Include a representative calculation that documents the adjustments made.

   _____

   _____

   _____

   _____

2. a. Describe how mitigation is implemented in the model. List the mitigation factors relevant for Louisiana properties. Identify sources that were used to set the mitigation factors and show data that supports the factors.

   b. Describe how the combination of multiple mitigation factors is calculated, and how any potential over- or under-estimation is addressed.

   c. Provide a completed **Exhibit O, Table 1** (Impact of Mitigation Features) using the full stochastic event set. The impact of each individual mitigation feature shall be calculated in isolation and recorded as a percent change in ground-up expected loss from the reference structure. Assume the reference structure is located at the latitude and longitude coordinates provided in **Exhibit O, Table 2**. Calculate the percent change for a structure certified as an IBHS Fortified for Safer Living home, for each year built bin represented in the model, and for the three mitigation factors that yield the greatest reduction in loss in the model.

   For the final row in **Exhibit O, Table 1**, labeled "Mitigation Measures in Combination That Produce Largest Reduction," report the maximum possible mitigation impact for an individual property; assume the property has been fully mitigated with all available individual mitigation features.

< 2.c. continued >

In **Exhibit O, Table 1**, the percent change shall be calculated for building coverage only on a ground-up basis.

Use the reference structures defined in the table below:

Reference Frame Structure	Reference Masonry Structure
Occupancy: Single Family Home	Occupancy: Single Family Home
Building Replacement Value: $200,000	Building Replacement Value: $200,000
One Story	One Story
Unbraced Gable End Roof	Unbraced Gable End Roof
Standard Shingles	Standard Shingles
1/2" Plywood Deck	1/2" Plywood Deck
6d Nails, Deck to Roof Members	6d Nails, Deck to Roof Members
Toe Nail Truss to Wall Anchor	Toe Nail Truss to Wall Anchor
5/8" diameter anchors at 48" Centers for Wall/Floor/Foundation Corrections	No Vertical Wall Reinforcing
No Storm Shutters	No Storm Shutters
Standard Exterior Windows	Standard Exterior Windows
Standard Exterior Doors	Standard Exterior Doors
Standard Skylights	Standard Skylights
Constructed in 1980	Constructed in 1980

PART B – LOSS ESTIMATES

Instructions: This section investigates the setting of model formulas, parameters, and analysis.

1. a. ☐ Yes   ☐ No   Does the model produce a confidence interval for loss costs that includes
parameter and process risk?

   b. ☐ Yes   ☐ No   Is the output visible to the user?

      i. If "Yes," explain how this interval is calculated.

      _____

      _____

      _____

      ii. If "Yes," what is the 95% confidence interval for the Louisiana statewide AAL, based on a
homeowners wood frame zero deductible loss using the provided LDI_Exp_2013.xlsx
exposure database? _____

2. a. Are model formulas, parameters, and analysis settings the same for all clients or can these be altered
depending on client need?

      ☐ Constant (the same for all clients)

      ☐ Can be Altered

   b. If formulas, parameters, or analysis settings can be altered, show the impact to Louisiana's statewide
homeowners, wood frame and zero deductible loss according to **Exhibit P** using the provided
LDI_Exp_2013.xlsx exposure database. In completing **Exhibit P** the change in loss should be
computed to baseline loss estimates in which analysis settings are "Off" or in a standard setting,
including Demand Surge (i.e., Loss Amplification) Off, Storm Surge Off, 10K or Standard Catalog
Size, Loss Adjustment Expense Off, and Long-Term Frequency Rates.

   c. Explain and show the AAL, 5%, 2%, and 1% exceedance probability loss estimates for any other
settings that can be changed not in the list provided in **Exhibit P**.

      _____

      _____

      _____

d. How does the model record if the settings are "on" or "off"?

3. a. Using the standard Louisiana Department of Insurance exposure set provided in the file LDI_Exp_2013.xlsx, calculate modeled loss costs per $1000 of exposure for the homeowners frame, homeowners masonry, renters frame, renters masonry, condominium frame, condominium masonry, mobile home, and commercial residential using the format of **Exhibit Q.1** through **Exhibit Q.8** respectively.

   For homeowners, mobile home and commercial residential risks, the loss cost per $1,000 is calculated based on the Coverage A limit. For renters and condominium owners risks the loss cost per $1,000 is calculated based on the Coverage C limit.

   b. Provide maps of the homeowners frame, homeowners masonry, and mobile home $0 deductible structure loss costs per $1,000 of exposure (see a. above) by ZIP code using the following bins and colors (slight variation in colors is acceptable):

Loss Cost per $1,000 of Exposure	
	6 or greater
	5 to <6
	4 to <5
	3 to <4
	2 to <3
	1 to <1
	less than 1
	N/A

4. The Louisiana Department of Insurance has identified a standard historical event set in **Exhibit R** for storms making landfall from 1900 to 2012 in Louisiana. Provide modeled property loss estimates for the hurricanes listed in **Exhibit R** using the LDI standard exposures provided in the file LDI_Exp_2013.xlsx. For each hurricane listed in **Report R**, report gross losses for all coverages combined on **Exhibit S** and **Exhibit T.** Report in hardcopy and on CD-ROM. Assume a 2% deductible applies for each risk.

< 4. continued >

If you find that there are historical storms making a Louisiana landfall not listed in **Exhibit R**, provide information about them here (but <u>do not include them</u> in your estimates for **Exhibit S** and **Exhibit T**):

5. Provide modeled Louisiana gross return period loss statistics using the format of **Exhibit U, Table 1**. Use the standard LDI exposure data provided in the file LDI_Exp_2013.xlsx and assume a 2% deductible applies for each risk to calculate gross losses. For **Exhibit U, Table 2**, quantify the impact of the listed deductible scenarios on the statewide average annual loss estimate by calculating loss elimination ratios. Use the standard LDI exposure data provided in the file LDI_Exp_2013.xlsx and assume each risk has the listed deductible for each scenario.

Note: Provide losses only for exposures in Louisiana only, regardless of landfall.

PART B – MODEL CHANGES

Instructions: **This section addresses the reason a revised model release took place, i.e., why the model software changed in some manner. This section should be completed even if the revisions are viewed as trivial.**

1. Identify which model components have been changed since the previous submission and quantify the impact of the change by component on the standard Louisiana Department of Insurance exposure set LDI_Exp_2013.xlsx. Use **Exhibit V** to display the differences between the previously filed (in Louisiana) model version's and this current model version's average annual loss costs, for the HO frame, zero deductible exposure.

2. Provide color-coded maps by Parish reflecting the percentage difference in average annual homeowners frame, zero deductible, parish loss costs for each model component change, using the following bins and colors (slight variation in colors is acceptable):

	Percentage Difference in Average Annual Parish Loss Costs
	-40% or less
	-20% to > -40%
	-10% to > -20%
	0% to > -10%
	+10% to > 0%
	+20% to > +10%
	+40% to > +20%
	+100% to > +40%
	greater than +100%

3. Provide a description of each change that affects the personal or commercial residential loss costs or probable maximum loss estimates, including:

   a. Provide the rationale for each change. Use the model components of **Exhibit V** as reference in your comments:

      i. Zip Codes: ☐ Changed   ☐ Did NOT change

      _____

      _____

      _____

      _____

    ii. Hazard Module: □ Changed   □ Did NOT change

    iii. Vulnerability Module: □ Changed   □ Did NOT change

    iv. Financial Module: □ Changed   □ Did NOT change

b. Comment on the data that supports each change, including quantification of the amount of data that specifically applies to the state of Louisiana. Use the model components of **Exhibit V** as reference in your comments:

    i. Zip Codes:

PART B – MODEL CHANGES

ii. Hazard Module:

iii. Vulnerability Module:

iv. Financial Module:

c. Quantify the amount of data specific to each change that was utilized in the previous submission, and the amount of "new" data that became available and was used to support changes in this model update. Use the model components of **Exhibit V** as reference in your comments:

i. Zip Codes:

  ii. Hazard Module:

_____

_____

_____

_____

_____

  iii. Vulnerability Module:

_____

_____

_____

_____

  iv. Financial Module:

_____

_____

_____

_____

d. With respect to data used to develop, validate or support this current model version, describe how data used to develop, validate or support the previous model version (i.e., the last model version filed with the LDI) and new data were incorporated/combined to develop, validate or support this current model version. Use the model components of **Exhibit V** as reference in your comments:

  i. Zip Codes:

_____

_____

_____

_____

PART B – MODEL CHANGES

   ii.   Hazard Module:

_____

_____

_____

_____

   iii.   Vulnerability Module:

_____

_____

_____

_____

   iv.   Financial Module:

_____

_____

_____

_____

PART B - SENSITIVITY TESTS

Instructions: **This section measures the sensitivity of modeled results due to differences in terrain roughness.**

Provide the impact of terrain factors on grid location expected loss. Provide ground-up expected loss estimates for both modeled open terrain and modeled actual terrain for the Homeowners Wood Frame structure type provided in the standard LDI_Exp_Grid_2013.xlsx exposure file. Report the expected loss estimates for building coverage only, and record the result on CD-ROM using the format of **Exhibit W**.

Note: Modeled "actual" terrain is the surface roughness utilized in the vendor model. Modeled "open" terrain corresponds to utilizing a constant roughness value of 0.03 meters at all locations.

EXHIBITS

(Exhibits referenced in PART B)

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EXHIBIT A

Profile of Key Technical Staff and Specific Contributions to Model Development
(Duplicate as needed; provide no more than three key staff contributors for each component.)

NAME: _____

TITLE: _____

YEARS EXPERIENCE WITH CATASTROPHE MODEL DEVELOPMENT: _____

CURRENT RELEASE REFERENCE: _____

EDUCATION: _____

_____

_____

SPECIFIC COMPONENT(S) WORKED ON:

☐☐ ☐ Hazard   ☐ Vulnerability   ☐ Financial   ☐ SW Development   ☐ Other (specify)

SPECIFIC CONTRIBUTION: _____

_____

_____

SIGNATURE: _____ DATE: _____

EXHIBIT B

Contact Information for Key Technical Staff Making Contributions to Each Component:
(Provide information on no more than three key staff contributors per component.)

Hazard Component

Name	Title	Email	Phone Number

Vulnerability Component

Name	Title	Email	Phone Number

Financial Component

Name	Title	Email	Phone Number

Software Development Component

Name	Title	Email	Phone Number

EXHIBIT C

Historical Release and Revision Summary

DATE	RELEASE REFERENCE	BRIEF DESCRIPTION

Profile of Independent Experts and Peer Reviews

Name and Qualifications of Peer Reviewer	Year and Release Reference	Component(s) Reviewed	How Many Hours Were Spent By the Peer Reviewer:	
			On Site	Total

EXHIBIT E

**Data Sources and Assumptions Underlying the
Model Variables**

Model Variable	Component	Description of (Changes in) Assumptions and Supporting Data Sources

Landfall Parameters for Historical Storm Used in Model Development

Historical Storm Description			Parameters at Landfall					Sources (Separately Identify Source for Each Parameter)
Name	Date (mm/dd/yyyy)	Coordinates (Decimal Degrees)	Central Pressure (mb)	Max Sustained 1-Min Wind Speed Over Land (mph)	Rmax (miles)	Forward Speed (mph)		

Comparison of Modeled Annual Frequencies to
Historical Frequencies by Region

	Saffir-Simpson Classification										Total
	5		4		3		2		1		
	Modeled Frequency	Historical Frequency	Modeled Frequency	Historical Frequency	Modeled Frequency	Historical Frequency	Modeled Frequency	Historical Frequency	Modeled Frequency	Historical Frequency	
100 miles west of Louisiana											
Western Louisiana											
Eastern Louisiana											
Total Louisiana											
100 miles east of Louisiana											
TOTAL											

NOTES:
- Use four decimals for displayed probabilities, e.g., .0219.

- Western Louisiana is defined as Cameron, Vermillion, Iberia, and St. Mary Parishes. Eastern Louisiana is defined as Terrebonne, Lafourche, Jefferson, Plaquemines, St. Bernard, and St. Tammany Parishes.

- For the purposes of this analysis, the regions are defined by the following bounding coordinates (all coordinates are displayed in decimal form):

100 miles west of Louisiana:	(28.963; -95.274), (29.688; -93.837)
Western Louisiana:	(29.688; -93.837), (29.586; -91.216)
Eastern Louisiana:	(29.586; -91.216), (30.186; -89.527)
Total Louisiana:	(29.688; -93.837), (30.186; -89.527)
100 miles east of Louisiana:	(30.186; -89.527), (30.228; -87.856)

EXHIBIT H

Central Pressures at Louisiana Landfall

Central Pressure	Counts		Annual Frequency	
	Historical	Modeled	Historical	Modeled
000 – 890 mb				
891 – 900 mb				
901 – 910 mb				
911 – 920 mb				
921 – 930 mb				
931 – 940 mb				
941 – 950 mb				
951 – 960 mb				
961 – 970 mb				
971 – 980 mb				
981+ mb				
TOTAL				

EXHIBIT I

Radius of Maximum Winds at Louisiana Landfall

Radius	Counts		Annual Frequency	
	Historical	Modeled	Historical	Modeled
0 – 10 Miles				
11 – 20 Miles				
21 – 30 Miles				
31 – 40 Miles				
41 – 50 Miles				
51 – 60 Miles				
61 – 70 Miles				
71+ Miles				
TOTAL				

Forward Speed at Louisiana Landfall

Speed	Counts		Annual Frequency	
	Historical	Modeled	Historical	Modeled
0 – 5 mph				
5.1 – 7.5 mph				
7.6 – 10.0 mph				
10.1 – 12.5 mph				
12.6 – 15.0 mph				
15.1 – 17.5 mph				
17.6 – 20.0 mph				
20.1 – 25.0 mph				
25.1 – 30.0 mph				
30.1+ mph				
TOTAL				

EXHIBIT K

Max Wind Speed at Louisiana Landfall

Max Wind Speed Over Land	Counts		Annual Frequency	
	Historical	Modeled	Historical	Modeled
71 – 80 mph				
81 – 90 mph				
91 – 100 mph				
101 – 110 mph				
111 – 120 mph				
121 – 130 mph				
131 – 140 mph				
141 – 150 mph				
151 – 160 mph				
161 – 170 mph				
171+ mph				
TOTAL				

EXHIBIT L

Decay Rate Over Constant Average Land Roughness

Elapsed Time	Mean Decay Rate		10th Percentile Decay Rate		90th Percentile Decay Rate	
	Maximum Wind Speed (MPH)	Percent of Wind Speed at Landfall	Maximum Wind Speed (MPH)	Percent of Wind Speed at Landfall	Maximum Wind Speed (MPH)	Percent of Wind Speed at Landfall
Landfall						
2 Hours						
4 Hours						
6 Hours						
8 Hours						
10 Hours						
12 Hours						
14 Hours						
16 Hours						
18 Hours						
20 Hours						
22 Hours						
24 Hours						
26 Hours						
28 Hours						
30 Hours						
32 Hours						
34 Hours						
36 Hours						
38 Hours						
40 Hours						
42 Hours						
44 Hours						
46 Hours						
48 Hours						

Wind Speed Output at the ZIP Centroid for Both Open Terrain and Modeled Actual Terrain

Zip Code	100 Year Return Period Winds From Stochastic Model	
	Modeled Open Terrain	Modeled Actual Terrain

NOTES: Report all wind speeds as the peak 1-min, 10-meter sustained wind speed.

Modeled "actual" terrain is the surface roughness utilized in the vendor model.

Modeled "open" terrain corresponds to utilizing a constant roughness value of 0.03 meters at all locations.

EXHIBIT N

Mean Damage Ratios for Hypothetical Storm

Wind speed (mph)	Estimated Ground-Up Damage / Subject Exposure			
	Single Family Home – Wood Frame	Single Family Home – Masonry	Mobile Home	Commercial Residential – Masonry
41 – 50				
51 – 60				
61 – 70				
71 – 80				
81 – 90				
91 – 100				
101 – 110				
111 – 120				
121 – 130				
131 – 140				
141 – 150				
151 – 160				
161 – 170				

Impact of Mitigation Features

		Percent Change in Ground-Up Expected Loss									
		Location A		Location B		Location C		Location D		Location E	
		SFH Wood Frame	SFH Masonry	SFH Wood Frame	SFH Masonry	SFH Wood Frame	SFH Masonry	SFH Wood Frame	SFH Masonry	SFH Wood Frame	SFH Masonry
	Reference Structure										
Identify the Three Mitigation Modifiers that Have the Most Impact in Louisiana											
Year of Construction (Indicate each year-built bin available in the model for LA)											
IBHS	Fortified for Safer Living Home										
Mitigation Measures in Combination That Produce Largest Reduction	Mitigated Structure										

EXHIBIT O, TABLE 2

Reference Structure Location

	Latitude	Longitude
Location A	29.54	-92.31
Location B	29.55	-92.31
Location C	29.68	-92.31
Location D	30.30	-92.31
Location E	31.05	-92.31

EXHIBIT P

Impact of Adjusting Model Settings

Can Model Setting Be Altered?	Attribute	Settings	Statewide Zero Deductible Loss			
			AAL	Exceedance Probability		
				5%	2%	1%
	Demand Surge (i.e., Loss Amplification)	ON				
		OFF				
	Storm Surge	ON				
		OFF				
	Catalog Size	10K				
		50K				
		100K				
		Other:_____				
	Loss Adjustment Expenses	ON				
		OFF				
	Freq Rates	NEAR TERM				
		MEDIUM TERM				
		LONG TERM				
		Other:_____				

EXHIBIT Q.1

Homeowners Frame Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Homeowners Masonry Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

EXHIBIT Q.3

Renters Frame Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

EXHIBIT Q.4

Renters Masonry Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Condominium Frame Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Condominium Masonry Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Mobile Home Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Commercial Residential Modeled Loss Costs

ZIP	$0 Deductible Structure	$0 Deductible Contents	$0 Deductible Time	$500 Deductible Total	$1000 Deductible Total	$2500 Deductible Total	1% Deductible Total	2% Deductible Total	5% Deductible Total
Parish Weighted Average									
Louisiana Weighted Total									

Historical Hurricanes 1900-2012

Instructions: **Below is a listing of a standard historical event set for storms making landfall from 1900 to 2012 in Louisiana. Provide modeled property loss estimates for the hurricanes listed using the LDI standard exposure data provided in the file LDI_Exp_2013.xlsx. For each hurricane listed, report gross losses for all coverages combined on Exhibit S and Exhibit T. Report in hardcopy and on CD-ROM. Assume a 2% deductible applies for each risk.**

Year	Name
1901	NoName4
1909	NoName8
1915	NoName5
1920	NoName2
1923	NoName3
1926	NoName3
1934	NoName2
1938	NoName2
1947	NoName4
1948	NoName5
1957	Audrey
1964	Hilda
1965	Betsy
1971	Edith
1974	Carmen
1979	Bob
1985	Danny
1985	Juan
1988	Florence
1992	Andrew
2002	Lili
2005	Cindy
2005	Katrina
2005	Rita
2008	Gustav
2012	Isaac

Historical Event Losses by Zip Code

For each event Report the Gross Losses (all coverages combined) in the following format:

Zip Code	Personal Residential*	Commercial	Total
Louisiana Total			

NOTES: * "Personal Residential" is defined as Homeowners, Condominium, Renter, and Mobile Home risks.
"Commercial" is defined as all risks other than personal residential.

Historical Event Losses by Event

Year	Historical Event	HO	Condo	Renter	Mobile Home	Commercial	Total

EXHIBIT U

Table 1 and Table 2

Louisiana Probable Maximum Loss and Statistics

(Estimates based on the LDI standard database exposures)

Table 1
(Assume a 2% hurricane deductible for each exposure)

Return Time (Years)	Louisiana Estimated Loss	
	Annual Aggregate	Annual Occurrence
Top Event		
10,000		
5,000		
1,000		
500		
250		
100		
50		
20		
5		
Mean		
Median		

Table 2
(Assume the hurricane deductible listed)

Hurricane Deductible	Estimated Mean Loss Elimination Ratio
NONE	**0**
$250	
$500	
$1,000	
1% Coverage A	
2% Coverage A	
5% Coverage A	

EXHIBIT V

Impact of Model Update By Component

Instructions: Identify which model components have been changed since the previous submission. Quantify the impact of the change by component on the standard LDI exposure set LDI_Exp_2013.xlsx. Provide loss costs in the table below for HO frame, no hurricane deductible.

Previous Model Version (filed with the LDI): _____

Current Model Version (filed with the LDI): _____

Updated? (Check box if "Yes")	Model Component	Model Version	Percent Difference in Average Annual Zero Deductible HO Frame Loss Cost		
			Statewide Loss Cost or Percent Difference	Parish with Largest Increase	Parish with Largest Decrease
☐	Zip Codes	Previous Model	$	Parish: _____	Parish: _____
		Current Model	$		
		Percent Difference	%	Percentage Increase: _____ %	Percentage Decrease: _____ %
☐	Hazard Module	Previous Model	$	Parish: _____	Parish: _____
		Current Model	$		
		Percent Difference	%	Percentage Increase: _____ %	Percentage Decrease: _____ %
☐	Vulnerability Module	Previous Model	$	Parish: _____	Parish: _____
		Current Model	$		
		Percent Difference	%	Percentage Increase: _____ %	Percentage Decrease: _____ %
☐	Financial Module	Previous Model	$	Parish: _____	Parish: _____
		Current Model	$		
		Percent Difference	%	Percentage Increase: _____ %	Percentage Decrease: _____ %
☐	Cumulative Impact	Previous Model	$	Parish: _____	Parish: _____
		Current Model	$		
		Percent Difference	%	Percentage Increase: _____ %	Percentage Decrease: _____ %

Impact of Terrain Factors on Grid Location Expected Loss

Grid Point	Expected Loss	
	Modeled Open Terrain	Modeled Actual Terrain

Notes: Modeled "actual" terrain is the surface roughness utilized in the vendor model.

Modeled "open" terrain corresponds to utilizing a constant roughness value of 0.03 meters at all locations.

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APPENDIX A

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APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

Data requested on all exhibits may be provided in hard copy but **must** also be provided in electronic format as defined in this Appendix (unless noted).

Data should be provided on a CD-ROM or DVD-ROM. The requested file format is Excel spreadsheet file format as defined in the following pages. The LDI requests that Excel 2010 or later be used to report interrogatory data electronically though Excel 2007 is an acceptable version; versions of Excel earlier than 2007 are not acceptable.

Data for each exhibit should be labeled as follows:

INTERROGATORY EXHIBIT	MS EXCEL FILE NAME	MS EXCEL WORKSHEET
N/A	LDI_INT_2013.xlsx	Transmittal Form
A	(e.g. LDI_INT_2013.xlsx)	Ex_A
B	(e.g. LDI_INT_2013.xlsx)	Ex_B
C	(e.g. LDI_INT_2013.xlsx)	Ex_C
D	(e.g. LDI_INT_2013.xlsx)	Ex_D
E	(e.g. LDI_INT_2013.xlsx)	Ex_E
F	(e.g. LDI_INT_2013.xlsx)	Ex_F
G	(e.g. LDI_INT_2013.xlsx)	Ex_G
H	(e.g. LDI_INT_2013.xlsx)	Ex_H
I	(e.g. LDI_INT_2013.xlsx)	Ex_I
J	(e.g. LDI_INT_2013.xlsx)	Ex_J
K	(e.g. LDI_INT_2013.xlsx)	Ex_K
L	(e.g. LDI_INT_2013.xlsx)	Ex_L
M	(e.g. LDI_INT_2013.xlsx)	Ex_M
N	(e.g. LDI_INT_2013.xlsx)	Ex_N
O	(e.g. LDI_INT_2013.xlsx)	Ex_O
P	(e.g. LDI_INT_2013.xlsx)	Ex_P
Q.1 though Q.8	(e.g. LDI_INT_2013.xlsx)	Ex_Q.1 through Ex_Q.8
R	(e.g. LDI_INT_2013.xlsx)	Ex_R
S	(e.g. LDI_INT_2013.xlsx)	Ex_S
T	(e.g. LDI_INT_2013.xlsx)	Ex_T
U	(e.g. LDI_INT_2013.xlsx)	Ex_U
V	(e.g. LDI_INT_2013.xlsx)	Ex_V
W	(e.g. LDI_INT_2013.xlsx)	Ex_W

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Transmittal Form

Description	Data Type
Model Company	Character
Name of Model	Character
Release Reference	Character
Stochastic Catalog Ref	Character
Date (Month, Day, Year)	MM/DD/YYYY

Exhibit A

Provide hardcopy only; not required in Excel format/file.

Exhibit B

Provide hardcopy only; not required in Excel format/file.

Exhibit C

Provide hardcopy only; not required in Excel format/file.

Exhibit D

Provide hardcopy only; not required in Excel format/file.

Exhibit E

Provide hardcopy only; not required in Excel format/file.

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Exhibit F

Description	Data Type
Name	Character
Date	MM/DD/YYYY
Coordinates	Character
Central Pressure	Numeric
Max Sustained 1-Min Wind Speed Over Land	Numeric
Rmax	Numeric
Forward Speed	Numeric
Sources	Character

Exhibit G

Description	Data Type
Modeled Frequency	Numeric
Historical Frequency	Numeric
Total	Numeric

Exhibit H

Description	Data Type
Historical	Numeric
Modeled	Numeric

Exhibit I

Description	Data Type
Historical	Numeric
Modeled	Numeric

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Exhibit J

Description	Data Type
Historical	Numeric
Modeled	Numeric

Exhibit K

Description	Data Type
Historical	Numeric
Modeled	Numeric

Exhibit L

Description	Data Type
Maximum Wind Speed (MPH)	Numeric
Percent of Wind Speed at LF	Numeric

Exhibit M

Description	Data Type
Zip Code	Numeric
Modeled Open Terrain	Numeric
Modeled Actual Terrain	Numeric

Exhibit N

Description	Data Type
Single Family Home - Wood Frame	Numeric
Single Family Home - Masonry	Numeric
Mobile Home	Numeric
Commercial Residential - Masonry	Numeric

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Exhibit O, Table 1

Description	Data Type
SFH Wood Frame	Numeric
SFH Masonry	Numeric

Exhibit O, Table 2

This table is for reference only

Exhibit P

Description	Data Type
Can Be Altered?	Check
AAL	Numeric
5%	Numeric
2%	Numeric
1%	Numeric

Exhibit Q.1 through Q.8

Description	Data Type
ZIP	Numeric
$0 Deductible Structure	Numeric
$0 Deductible Contents	Numeric
$0 Deductible Time	Numeric
$500 Deductible Total	Numeric
$1000 Deductible Total	Numeric
$2500 Deductible Total	Numeric
1% Deductible Total	Numeric
2% Deductible Total	Numeric
5% Deductible Total	Numeric

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Exhibit R

Provide hardcopy only; not required in Excel format/file.

Exhibit S

Description	Data Type
Zip Code	Numeric
Personal Residential	Numeric
Commercial	Numeric
Total	Numeric

Exhibit T

Description	Data Type
Year	Numeric
Historical Event	Character
HO	Numeric
Condo	Numeric
Renter	Numeric
Mobile Home	Numeric
Commercial	Numeric
Total	Numeric

Exhibit U, Table 1

Description	Data Type
Annual Aggregate	Numeric
Annual Occurrence	Numeric

Exhibit U, Table 2

Description	Data Type
Estimated Mean Loss Elimination Ratio	Numeric

APPENDIX A

ELECTRONIC FORMAT SPECIFICATION

EXCEL FILE LAYOUT

Exhibit V

Description	Data Type
Statewide Impact	Numeric
Parish w/ Largest Increase (Name & Pct)	Character, Numeric
Parish w/ Largest Decrease (Name & Pct)	Character, Numeric

*For Exhibit V, hardcopy alone will suffice though Excel format is also acceptable.

Exhibit W

Description	Data Type
Grid Point	Numeric
Modeled Open Terrain	Numeric
Modeled Actual Terrain	Numeric