

**TEXAS WINDSTORM INSURANCE ASSOCIATION
RESIDENTIAL PROPERTY RATE LEVEL REVIEW
2012**

June 2011

TABLE OF CONTENTS

INTRODUCTION.....	1
DISTRIBUTION AND USE.....	1
RELIANCE UPON DATA.....	1
LIMITATIONS	2
EXECUTIVE SUMMARY	3
ACTUARIAL ANALYSIS	5
Overview of Analysis	5
Earned Premium at Current Rates.....	6
Loss Adjustment Expense Factors	6
Projected Non-Hurricane Loss and LAE Ratio	6
Projected Hurricane Loss and LAE Ratio.....	8
Fixed Expenses and Variable Permissible Loss and LAE Ratio	10
Indicated Rate Change	11
Data Issues	11
Key Differences Versus Prior Indications	11
FINANCIAL ANALYSIS.....	13
SUMMARY OF EXHIBITS	14

INTRODUCTION

The Texas Windstorm Insurance Association (TWIA) has completed studies sufficient to support rate level indications for its residential coverages. This report documents the procedures and results of this analysis.

DISTRIBUTION AND USE

This report was prepared for internal use by the management of TWIA. A complete copy of the report may be submitted to the Texas Department of Insurance (TDI or Department) for use in the approval of a rate change. This report may also be provided to the TWIA actuarial committee. Use of this report for other than the stated purpose may not be proper and must be preceded by written authorization.

RELIANCE UPON DATA

The following data and information used in this analysis were prepared by TWIA and are the responsibility of TWIA's management:

- TWIA losses and loss adjustment expenses
- TWIA written and earned premiums
- History of rate changes impacting TWIA residential premium
- TWIA's statutory annual statements and insurance expense exhibits.

At the time of this analysis, some of the data was unaudited. The data was reviewed for reasonableness and consistency, and the TWIA written premium and paid loss data provided for this analysis were reconciled to TWIA's annual statements

In addition to TWIA's own data, we utilized insurance industry premium and loss data supplied by the TDI.

We also used the results of two different hurricane simulation models -- one prepared by Applied Insurance Research (AIR) and one model prepared by Risk Management Solutions (RMS). Both models utilized TWIA exposure data as of 12/31/10. TWIA has not directly verified the accuracy of these simulation models, but has relied on documentation provided directly by the modeling firms and submission documentation provided to the Florida Commission on Hurricane Loss Projection Methodology to comply with Actuarial Standard of Practice #38, "Using Models Outside the Actuary's Area of Expertise."

LIMITATIONS

The indicated rate level change as shown in this report represents a reasonable estimate of the rate level necessary to cover the TWIA's expected costs of providing residential wind/hail coverage. The actual costs of providing residential property coverage for a specific year may differ substantially from the indicated rate level range shown in this report. The possibility of this variability arises from the fact that the events covered by TWIA are inherently unpredictable from year to year. The indicated rate level is, however, our best estimate of the expected annual cost of providing residential wind/hail coverage.

This actuarial report provides professional input and guidance to TWIA; however, the final decision regarding implementation and actual rate level change is a management decision.

The attached exhibits should be considered an integral part of this report.

EXECUTIVE SUMMARY

This section provides a brief synopsis of the key findings and recommendations contained in our study.

1. We have estimated the indicated total rate level change using a combination of two different methodologies for projecting the expected hurricane portion of the indicated rate level. The indicated total rate level changes are shown in Exhibit 1 and the following table:

Indicated Rate Change: Long Term Hurricane Methodologies

Hurricane Projection Methodology	Indicated Rate Change
Actual Experience and Models Combined	+28%
Actual Industry Experience	+17%
Hurricane Simulation Models	+39%

The indicated rate change shown is based on a combination of actual industry experience and hurricane simulation models. The indications based on each of these methodologies alone are also shown for reference. All methodologies use a long-term approach to develop the hurricane portion of the indicated rate level.

The hurricane simulation models utilized are widely used for insurance company catastrophe management and ratemaking. Versions of these simulation models have undergone verification by and been approved by the Florida Commission on Hurricane Loss Projection Methodology.

2. The indicated rate level change includes different hurricane projection methodologies. The different methods were used because the actuarial methods used to incorporate hurricane losses into rate indications are still evolving. Traditionally, actuarial methods have been based on insurance industry hurricane loss experience. More recently, actuarial methods have incorporated the results of hurricane simulation models to minimize the weaknesses of the traditional approaches.

The method using actual industry experience relies on a more traditional approach and is based on 47 years of actual insurance industry premiums and losses and 160 years of actual hurricane experience. This method possesses the advantage of finding broader regulatory acceptance in many states (including Texas). The alternate method incorporates the results of hurricane simulation models. This has the advantage of minimizing many of the theoretical weaknesses of the traditional actuarial methodologies. The overall indication assigns equal weight to these hurricane projection methodologies.

3. The current rate indication is 1% more than the corresponding indication from the prior TWIA residential rate study. A 5% rate increase, increased non-catastrophe losses, and a shift in expenses from fixed to variable result in the increase.

Details on the key differences between the current and prior rate indications are described in the Analysis section of this report.

4. The indicated rate changes presented in this report reflect a separate provision for contributions to the catastrophe reserve trust fund. The provision for the catastrophe trust fund is 20% of TWIA premium. The 20% provision is necessary to rebuild the fund, which was completely depleted in order to pay losses associated with 2008 hurricanes. The provision has been increased from 15% to reflect a greater need for contributions and to retain the savings resulting from the decision not to purchase catastrophe reinsurance.

The provision for reinsurance expense is 18.3% of TWIA premium. The provision for reinsurance expense reflects the estimated actual net cost of purchasing catastrophe reinsurance (reinsurance premiums paid net of the expected reduction in TWIA retained losses). Catastrophe reinsurance provides TWIA with annually renewable protection against large storm losses.

ACTUARIAL ANALYSIS

Overview of Analysis

The goal of the rate level adequacy review is to compare the current rate level to TWIA's expected costs for providing residential property insurance coverage. This comparison is achieved by estimating the projected loss, loss adjustment expense (LAE), and fixed expense ratio for a prospective accident year and then comparing this ratio to the "permissible" loss, LAE, and fixed expense ratio. The permissible ratio is the portion of premium remaining to pay loss, LAE, and fixed expenses after payment of TWIA variable expenses. If the projected ratio is higher than the permissible ratio, then a rate increase is indicated. If the projected ratio is lower than the permissible, then a rate decrease is indicated.

The steps employed to estimate the projected loss, LAE, and fixed expense ratio are as follows:

1. Adjust historical premium to the current rate level (to facilitate calculation of historical loss ratios at current rates).
2. Determine LAE factors to add projected LAE to projected loss.
3. Estimate the projected non-hurricane loss and LAE ratio.
4. Estimate the projected hurricane loss and LAE ratio.
5. Estimate the projected fixed expense ratio.
6. Sum the projected non-hurricane and hurricane loss ratios and the projected fixed expense ratio to obtain the projected total loss, LAE, and fixed expense ratio.

The steps employed to determine the permissible loss and LAE ratio are as follows:

- (a) Analyze historical variable expense to premium ratios to estimate the projected total variable expense ratio.
- (b) Subtract the projected total variable expense ratio from 1.00 to derive the variable permissible loss and LAE ratio.

Steps 1-5 and (a)-(b) are described in more detail in the remainder of this report.

Earned Premium at Current Rates

Historical industry and TWIA earned premium is adjusted to TWIA's current rate level. Earned premium at current rates for prior years permits the calculation of historical loss ratios at the current rate level.

Exhibit 10 shows the calculation of earned premium at current TWIA rates. Industry earned premium at current Texas Personal Lines Manual rates was provided by TDI/TICO. TWIA's residential rate level is currently 95.3% above the Texas Manual rate level (net of the 90% coverage differential adjustment). Historical TWIA written premium is adjusted to the current rate level and adjusted to an earned basis based on a uniform monthly earning assumption.

Loss Adjustment Expense Factors

In Exhibit 4, the historical ratio of LAE to loss is analyzed to develop LAE factors. Separate LAE factors are developed for hurricane and non-hurricane losses. The hurricane LAE factors are developed based on the LAE to loss ratio for years with hurricanes. The non-hurricane LAE factors are developed based on the ratio for years without hurricanes. TWIA statutory annual statement incurred loss and LAE data is utilized to derive these ratios.

The indicated LAE to loss ratios are shown in Exhibit 4, Sheet 1. For hurricane losses, the indicated LAE ratio of 0.126 is equal to the weighted average of the nine hurricane years included in the analysis. For non-hurricane losses, the indicated ratio of 0.358 is equal to the weighted average of the most recent 10 non-hurricane years included in the analysis.

The development of these LAE factors is necessary to add LAE to the projected hurricane and non-hurricane loss ratios. The development of these loss ratios is described in the following two sections.

Projected Non-Hurricane Loss and LAE Ratio

Exhibit 2 shows the development of the projected non-hurricane loss and LAE ratio. The loss portion of this ratio is estimated by comparing the indicated ultimate industry non-hurricane loss for accident years 2001-2010 to the earned premium at current TWIA rates for the same years.

The indicated ultimate non-hurricane loss for each year is based on actual industry paid loss as of 9/30/10, and the paid loss development method. LAE is then added to each year's ultimate loss through the non-hurricane LAE factor developed in Exhibit 4. Non-hurricane losses through the first quarter of 2011 were also included to reflect an abnormally large non-hurricane event.

Paid loss development factors are selected based on the current average of all available years and prior selections. Given the positive skewness of the observed age-to-age development factors, a straight average may be more preferable than an average excluding the highest and lowest observation to avoid understating the expected development.

Each year's estimated ultimate loss and LAE is compared to the earned premium at present rates.

The resulting loss and LAE ratios are then trended forward to the expected prospective inflation level. The net trend factor is equal to a loss trend offset by a premium trend. The loss trend is calculated using industry-wide construction cost and consumer price indices. Premium trend is derived from historical changes in average earned premium at present rates. Both premiums and losses are trended to current levels by applying the actual, historical changes in the appropriate data. Future premium and loss trends are selected based on all available and relevant data. Because the selected trends are estimates of the future trend between the current and prospective earned and accident dates, and because they are not used to trend historical experience to current premium and loss levels, it may not be necessary to use experience only from periods where both premium and loss data are available.

The resulting loss and LAE ratios for each accident year from 2001-2010 and the period ending 3/31/11 form the basis for the indicated projected loss and LAE ratio. The indicated loss and LAE ratio equals the premium-weighted average ratio from the 2001-2011 accident period. This method gives greater weight to more recent years due to TWIA's growth. Given the greater credibility normally associated with more recent experience and the potentially significant change in TWIA's residential book of business due to the growth, this weighting may be more appropriate than a non-weighted average across all years.

The all-territory indicated loss and LAE ratio is then calculated as the weighted average of the territory loss and LAE ratios. TWIA 2010 written premium is used in the weighted average calculation.

Projected Hurricane Loss and LAE Ratio

Two different methods are used to develop the projected hurricane loss and LAE ratios. The first method is based on insurance industry and meteorological hurricane experience for the last 47 and 160 years, respectively. The other method is based on hurricane simulation models. The “47/160-year” method is utilized because the Texas Insurance Code required until recently the consideration of a 30-year minimum experience period. The simulation method is utilized because it minimizes many of the theoretical weaknesses of the historical method. These weaknesses include:

- A 47-year period is insufficient to measure long-term hurricane intensity.
- A 47-year period of insurance industry experience includes years where land use, population densities, construction techniques and materials, engineering techniques and building codes were different than today. These differences diminish the relevance of insurance data from several decades ago in evaluating today’s residential property rates.

Differences between the two methods are the result of expected variances in the frequency and severity of hurricanes, and fundamental differences between the aggregate historical industry exposures and current TWIA exposures. Because of the readily identifiable nature of hurricanes, there should be no double-counting or understatement of expected future losses resulting from the use of either method.

For each method, the projected hurricane loss ratio is estimated first. LAE is added to each loss ratio using the hurricane LAE factor developed in Exhibit 4. Each method’s development of the projected hurricane loss ratio is described as follows:

Actual 47/160-Year Industry Hurricane Experience

In Exhibit 6, Texas insurance industry seacoast dwelling extended coverage experience for the 1964-2010 period is used in the development of a projected hurricane loss ratio. For each year, insurance industry loss ratios at current rates are calculated using information provided by the TDI. For the years where sufficient detail is available (1980-2010), these loss ratios are adjusted to TWIA’s rate level and re-weighted based on the TWIA’s current premium distribution by territory within the seacoast area.

A projected hurricane loss ratio is developed from these 47 years of loss ratios by separating the 47 years into the thirteen hurricane years and thirty-four non-hurricane years. The 34 non-hurricane years are used to develop an estimated non-hurricane loss ratio.

Hurricane loss ratios are then estimated by subtracting the non-hurricane loss ratio from the total loss ratio in each of the thirteen hurricane years. An average hurricane loss ratio for hurricane years is calculated as the average of the thirteen hurricane loss ratios: 90.5%.

The 47-year period that underlies the selected hurricane loss ratio has experienced significantly fewer hurricanes than the long-term average. As shown in Exhibit 9, the annual hurricane frequency during this 47-year period is 0.298, while the annual frequency during the most recent 160-year period is 0.394. The 47-year period represents all years for which TWIA has been provided industry data by TDI. Because the expected frequency of hurricanes is unrelated to the availability of insurance industry data, there is no reason to use only the most recent 47-year period to estimate the expected frequency of hurricane activity. Given the relatively infrequent occurrence of hurricanes, the largest possible experience period should be considered in order to obtain the most credible result. The selected hurricane frequency is therefore set equal to the 160-year historical hurricane frequency. As shown in Exhibit 6, Sheet 1, multiplying the selected loss ratio for hurricane years by the selected hurricane frequency yields a projected hurricane loss ratio of 35.7%.

Hurricane Simulation Models

This projected hurricane loss ratio is determined based on the average result of two different hurricane simulation models. The models are AIR CLASIC/2 v12.0 and RMS RiskLink v11.0. Both models were run using exposure data provided by TWIA as of 12/31/2010. This exposure data included location-level detail including physical characteristics of each risk and all relevant coverages. Both models were run using historical (long-term) event rates and both results include loss amplification (demand surge) and exclude storm surge and loss adjustment expenses. A separate provision for storm surge was included, equal to 10% of the increase in modeled average annual losses due to the inclusion of storm surge in the model output. The AIR and RMS models generated 4,741 and 9,772 unique events, respectively, with the following distribution of intensity ratings:

Saffir-Simpson Category	AIR	RMS
Category 0	709	29.2%
Category 1	1,648	14.9%
Category 2	1,060	7.0%
Category 3	914	7.5%
Category 4	361	2.6%
Category 5	49	0.3%

The intensity at first landfall is shown for AIR events. RMS event sets display multiple landfall intensities and locations and include a frequency rate for each event. The total frequency for events of each intensity is shown with the intensity most relevant to Texas exposures. Events shown as Category 0 include bypassing events and events making landfall in neighboring states or Mexico in addition to Cat 0 events that make landfall in TX.

As shown in Exhibits 7 and 8, these models yield projected hurricane loss ratios of 49.6% and 45.3%. The average of these loss ratios is 47.5%.

Fixed Expenses and Variable Permissible Loss and LAE Ratio

Exhibit 11 shows the expense assumptions used to develop the projected fixed expense ratio and the variable permissible loss and LAE ratio. Fixed expenses include general expenses and the net cost of reinsurance. The sum of these projected expenses provides for a 22.6% fixed expense ratio. Variable expenses include commission, taxes, and catastrophe trust fund contribution. Subtracting these expenses from 100% yields a variable permissible loss and LAE ratio of 62.2%.

As stated above, the expenses include a provision for an annual contribution to the catastrophe reserve trust fund and for the projected net cost of TWIA's purchasing of reinsurance. The 20% provision for the trust fund contribution is intended to permit the redevelopment of the catastrophe reserve trust fund to reduce the potential for future year surcharges on TWIA and coastal insurance policies and assessments to TWIA members. The 18.3% provision for reinsurance expense reflects the estimate net actual cost of purchasing reinsurance (reinsurance

premiums net of the expected reduction in TWIA retained losses). TWIA's purchasing of reinsurance provides additional current year protection to TWIA and coastal policyholders and TWIA members.

Indicated Rate Change

Exhibit 1 summarizes the indicated rate change using a combination of the two hurricane loss ratio projection methods. The individual indications resulting from the use of each methodology are also shown for reference. The indicated rate change for each method is calculated by dividing the total projected loss, LAE, and fixed expense ratio by the variable permissible loss and LAE ratio. This method of calculating the indicated rate change assumes that TWIA's variable expenses vary proportionally with premium while the fixed expenses do not.

Data Issues

Reconciliation of Data to TWIA's Annual Statements

Exhibit 12 shows a reconciliation of the premium data provided by TWIA to TWIA's annual statement data. This reconciliation shows the differences between the two data sources. Differences of less than 1% exist for each year except 2010.

Key Differences Versus Prior Indications

The indicated rate changes shown in this report are 1% higher those shown in the prior (August 2010) study. The reasons for the higher indications are summarized in the following table.

Reconciliation of Current vs. Prior Indications

Rate Indication/Reason for Change	Impact of Change	Rate Indication
<i>Previous Rate Indication (Combined Method)</i>		+27%
TWIA Rate Level	-6%	
Change in Experience Period	+7%	
<i>Current Rate Indication (Combined Method)</i>	+1%	+28%

These reasons are discussed below:

TWIA Rate Level

The TWIA rate level increased 5% as a result of the most recent filing.

Change in Experience Period

Using a more recent experience period increased the indicated rate change by 7 points. This is due to increases in catastrophe losses and a shift in expenses from variable to fixed with the purchase of reinsurance.

FINANCIAL ANALYSIS

In recognition of recent changes to TWIA funding, a financial analysis was completed in order to determine whether projected net premium income would be sufficient to cover ongoing costs and the potentially sizable fixed premium income requirements of any public securities issued.

This analysis is shown on Exhibit 13. Projected written and earned premiums for 2012 are compared to projected ongoing costs, including non-catastrophe losses and loss adjustment expenses, general operating expenses, reinsurance, commissions, and premium taxes. This comparison is made assuming both current and proposed rate levels. The resulting net premium income is compared to current estimates of the net required premium and net debt service for \$1 billion in Class 1 public securities.

Current rate levels result in projected net premium income below the range of estimated costs. Current and proposed rate levels would result in insufficient net required premium to issue the entire \$1 billion of Class 1 public securities. Proposed rate levels would be sufficient to support between \$766 and \$951 million in Class 1 public securities.

SUMMARY OF EXHIBITS

<u>Exhibit Number</u>	<u>Exhibit Title or Purpose</u>
1	Summary of Indicated Rate Change
2	Projected Ultimate Non-Hurricane Loss & LAE Ratio
3	Paid Loss Development Factors and Premium and Loss Trend Analysis
4	Development of LAE Factor
5	Summary of Indicated Hurricane Loss & LAE Ratios
6	Development of Hurricane Loss Ratio – 45/158-Year Method
7	Hurricane Loss Ratio – AIR Model
8	Hurricane Loss Ratio – RMS Model
9	Texas Hurricanes 1899-2008
10	Earned Premium at Present Rates
11	Fixed Expenses and Variable Permissible Loss & LAE Ratios
12	Reconciliation of Premium Data to Annual Statement
13	Analysis of Current and Proposed Net Premium Income

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Summary of Indicated Rate Change
By Method for Projecting Hurricane Loss & LAE

Exhibit 1

Hurricane Projection Method (1)	Indicated Loss & LAE Ratio		Fixed Expenses (4)	Total (5)	Variable Permissible LLAE Ratio (6)	Indicated Rate Change (7)	Proposed Rate Change (8)
	Hurricane (2)	Non-Hurricane (3)					
Using Experience and Models	47.1%	9.7%	22.6%	79.4%	62.2%	+28%	+5.0%
Using Actual Industry Experience	40.2%	9.7%	22.6%	72.5%	62.2%	+17%	
Using Hurricane Models	54.0%	9.7%	22.6%	86.3%	62.2%	+39%	

Notes:

- (2) Exhibit 5
- (3) Exhibit 2, Sheet 1
- (4) Exhibit 11
- (5) = (2) + (3) + (4)
- (6) Exhibit 11
- (7) = (5) / (6) - 1
- (8) Selected

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss & LAE Ratio
 All Territory Weighted Average

Exhibit 2
 Sheet 1

Territory	2010 Written Premium		Indicated Non-Hurricane Loss & LAE Ratio
	Amount	Share	
(1)	(2)	(3)	(4)
Tier 1 - Territory 8	89,209,947	32.4%	4.0%
Tier 1 - Territory 9	48,549,630	17.7%	6.6%
Tier 1 - Territory 10	134,520,604	48.9%	14.6%
Tier 2	2,677,912	1.0%	11.6%
Total / Average	274,958,093	100.0%	9.7%

Notes:

- (2) TWIA data
- (3) = (2) / (2) Total
- (4) Exhibit 2, Sheet 2a - Sheet 2d

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss & LAE Ratio
 Tier 1 – Territory 8 (Galveston County)

Exhibit 2
 Sheet 2a

Accident Year Ending 9/30/xx	Ultimate Non-Hurricane Loss	LAE Factor	Net Trend Factor	Projected Non-Hurricane Loss & LAE	Earned Premium at Current TWIA Rate Level	Indicated Non-Hurricane Loss & LAE Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	1,947,817	0.358	0.896	2,370,041	31,365,561	7.6%
2002	10,059,284	0.358	0.905	12,362,759	34,518,390	35.8%
2003	1,672,549	0.358	0.928	2,107,786	45,835,629	4.6%
2004	731,759	0.358	0.921	915,224	55,778,614	1.6%
2005	5,016,198	0.358	0.911	6,205,729	63,474,357	9.8%
2006	815,057	0.358	0.923	1,021,620	68,045,313	1.5%
2007	1,423,117	0.358	0.994	1,920,997	91,752,573	2.1%
2008	574,363	0.358	1.008	786,225	115,263,523	0.7%
2009	3,154,547	0.358	1.003	4,296,726	134,752,571	3.2%
2010	985,119	0.358	0.995	1,331,103	147,349,462	0.9%
2011 / 1	106,555	0.358	0.993	143,689	47,343,967	0.3%
Total	26,486,365			33,461,899	835,479,960	4.0%

Notes:

- (2) Exhibit 2, Sheet 3a
- (3) Exhibit 4, Sheet 1
- (4) Exhibit 2 Sheet 5
- (5) = (2) * [1 + (3)] * (4)
- (6) Exhibit 10, Sheet 1a
- (7) = (5) / (6)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss & LAE Ratio
 Tier 1 – Territory 9 (Nueces County)

Exhibit 2
 Sheet 2b

Accident Year Ending 9/30/xx	Ultimate Non-Hurricane Loss	LAE Factor	Net Trend Factor	Projected Non-Hurricane Loss & LAE	Earned Premium at Current TWIA Rate Level	Indicated Non-Hurricane Loss & LAE Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	1,394,445	0.358	0.896	1,696,716	17,047,893	10.0%
2002	1,227,528	0.358	0.905	1,508,620	18,330,620	8.2%
2003	2,226,916	0.358	0.928	2,806,413	24,044,551	11.7%
2004	569,877	0.358	0.921	712,755	27,740,896	2.6%
2005	753,305	0.358	0.911	931,942	29,851,013	3.1%
2006	622,744	0.358	0.923	780,569	31,224,998	2.5%
2007	838,796	0.358	0.994	1,132,250	45,877,433	2.5%
2008	620,069	0.358	1.008	848,790	62,906,855	1.3%
2009	466,652	0.358	1.003	635,615	76,193,131	0.8%
2010	3,664,872	0.358	0.995	4,952,012	84,678,168	5.8%
2011 / 1	10,856,609	0.358	0.993	14,640,072	47,343,967	30.9%
Total	23,241,813			30,645,754	465,239,525	6.6%

Notes:

- (2) Exhibit 2, Sheet 3b
- (3) Exhibit 4, Sheet 1
- (4) Exhibit 2 Sheet 5
- (5) = (2) * [1 + (3)] * (4)
- (6) Exhibit 10, Sheet 1b
- (7) = (5) / (6)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Exhibit 2
Sheet 2c

Projected Ultimate Non-Hurricane Loss & LAE Ratio
Tier 1 – Territory 10 (Other Tier 1)

Accident Year Ending 9/30/xx	Ultimate Non-Hurricane Loss	LAE Factor	Net Trend Factor	Projected Non-Hurricane Loss & LAE	Earned Premium at Current TWIA Rate Level	Indicated Non-Hurricane Loss & LAE Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	2,426,814	0.358	0.896	2,952,870	29,425,150	10.0%
2002	5,925,066	0.358	0.905	7,281,847	32,610,850	22.3%
2003	8,019,872	0.358	0.928	10,106,835	40,046,158	25.2%
2004	990,613	0.358	0.921	1,238,978	46,418,912	2.7%
2005	2,890,865	0.358	0.911	3,576,399	52,180,160	6.9%
2006	1,811,163	0.358	0.923	2,270,173	60,386,198	3.8%
2007	4,556,085	0.358	0.994	6,150,040	111,445,857	5.5%
2008	2,094,529	0.358	1.008	2,867,125	172,530,834	1.7%
2009	2,188,250	0.358	1.003	2,980,558	210,946,963	1.4%
2010	6,319,342	0.358	0.995	8,538,758	235,548,625	3.6%
2011 / 1	77,154,738	0.358	0.993	104,042,701	47,343,967	219.8%
Total	114,377,337			152,006,284	1,038,883,674	14.6%

Notes:

- (2) Exhibit 2, Sheet 3c
- (3) Exhibit 4, Sheet 1
- (4) Exhibit 2 Sheet 5
- (5) = (2) * [1 + (3)] * (4)
- (6) Exhibit 10, Sheet 1c
- (7) = (5) / (6)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss & LAE Ratio
 Tier 2 – (Territories 1 and 11)

Exhibit 2
 Sheet 2d

Accident Year Ending 9/30/xx	Ultimate Non-Hurricane Loss	LAE Factor	Net Trend Factor	Projected Non-Hurricane Loss & LAE	Earned Premium at Current TWIA Rate Level	Indicated Non-Hurricane Loss & LAE Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	23,547,404	0.358	0.896	28,651,728	60,648,778	47.2%
2002	7,950,367	0.358	0.905	9,770,922	64,155,208	15.2%
2003	7,302,129	0.358	0.928	9,202,318	73,403,866	12.5%
2004	3,749,247	0.358	0.921	4,689,251	77,080,623	6.1%
2005	3,846,068	0.358	0.911	4,758,117	80,347,941	5.9%
2006	4,916,947	0.358	0.923	6,163,069	87,746,329	7.0%
2007	4,940,703	0.358	0.994	6,669,218	101,982,135	6.5%
2008	8,889,332	0.358	1.008	12,168,287	102,523,682	11.9%
2009	8,708,810	0.358	1.003	11,862,044	114,446,536	10.4%
2010	9,585,173	0.358	0.995	12,951,582	114,673,342	11.3%
2011 / 1	24,052	0.358	0.993	32,434	47,343,967	0.1%
Total	83,460,232			106,918,970	924,352,407	11.6%

Notes:

- (2) Exhibit 2, Sheet 3d
- (3) Exhibit 4, Sheet 1
- (4) Exhibit 2 Sheet 5
- (5) = (2) * [1 + (3)] * (4)
- (6) Exhibit 10, Sheet 1d
- (7) = (5) / (6)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss
 Tier 1 – Territory 8 (Galveston County)

Exhibit 2
 Sheet 3a

Accident Year	Industry Non-Hurricane Paid Loss	Development Factor	Ultimate Non-Hurricane Loss
(1)	(2)	(3)	(4)
2001	1,947,817	1.000	1,947,817
2002	10,059,284	1.000	10,059,284
2003	1,672,549	1.000	1,672,549
2004	731,759	1.000	731,759
2005	5,011,187	1.001	5,016,198
2006	813,430	1.002	815,057
2007	1,414,629	1.006	1,423,117
2008	565,875	1.015	574,363
2009	3,050,819	1.034	3,154,547
2010	847,050	1.163	985,119
2011 / 1	35,256	3.022	106,555
Total	26,149,655		26,486,365

Notes:

- (2) Exhibit 2, Sheet 4a, as of 12/31/10
- (3) Exhibit 3, Sheet 1
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss
 Tier 1 – Territory 9 (Nueces County)

Accident Year	Industry Non-Hurricane Paid Loss	Development Factor	Ultimate Non-Hurricane Loss
(1)	(2)	(3)	(4)
2001	1,394,445	1.000	1,394,445
2002	1,227,528	1.000	1,227,528
2003	2,226,916	1.000	2,226,916
2004	569,877	1.000	569,877
2005	752,552	1.001	753,305
2006	621,501	1.002	622,744
2007	833,793	1.006	838,796
2008	610,905	1.015	620,069
2009	451,308	1.034	466,652
2010	3,151,223	1.163	3,664,872
2011 / 1	3,592,168	3.022	10,856,609
Total	15,432,216		23,241,813

Notes:

- (2) Exhibit 2, Sheet 4b, as of 12/31/10
- (3) Exhibit 3, Sheet 1
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss
 Tier 1 – Territory 10 (Other Tier 1)

Exhibit 2
 Sheet 3c

Accident Year	Industry Non-Hurricane Paid Loss	Development Factor	Ultimate Non-Hurricane Loss
(1)	(2)	(3)	(4)
2001	2,426,814	1.000	2,426,814
2002	5,925,066	1.000	5,925,066
2003	8,019,872	1.000	8,019,872
2004	990,613	1.000	990,613
2005	2,887,977	1.001	2,890,865
2006	1,807,548	1.002	1,811,163
2007	4,528,912	1.006	4,556,085
2008	2,063,575	1.015	2,094,529
2009	2,116,296	1.034	2,188,250
2010	5,433,656	1.163	6,319,342
2011 / 1	25,528,484	3.022	77,154,738
Total	61,728,813		114,377,337

Notes:

- (2) Exhibit 2, Sheet 4c, as of 12/31/10
- (3) Exhibit 3, Sheet 1
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Projected Ultimate Non-Hurricane Loss
 Tier 2 – (Territories 1 and 11)

Exhibit 2
 Sheet 3d

Accident Year	Industry Non-Hurricane Loss	Development Factor	Ultimate Non-Hurricane Loss
(1)	(2)	(3)	(4)
2001		1.000	23,547,404
2002	7,950,367	1.000	7,950,367
2003	7,302,129	1.000	7,302,129
2004	3,749,247	1.000	3,749,247
2005	3,842,226	1.001	3,846,068
2006	4,907,133	1.002	4,916,947
2007		1.006	4,940,703
2008		1.015	8,889,332
2009		1.034	8,708,810
		1.163	9,585,173
		3.022	24,052
Total	81,809,875		83,460,232

Notes:

(2) et al. 12/31/10

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Exhibit 2
Sheet 4a

Summary of Industry Historical Paid Loss as of 12/31/10
Tier 1 -- Territory 8 (Galveston County)

Accident Year	<u>Paid Loss Excluding Expense</u>			Total
	Non-Hurricane	Hurricane		
(1)	(2)	(3)	(4)	
2001	1,947,817	0	1,947,817	
2002	10,059,284	0	10,059,284	
2003	1,672,549	1,000,369	2,672,918	
2004	731,759	0	731,759	
2005	5,011,187	29,433,518	34,444,705	
2006	813,430	0	813,430	
2007	1,414,629	1,286,848	2,701,477	
2008	565,875	721,943,495	722,509,370	
2009	3,050,819	0	3,050,819	
2010	847,050	0	847,050	
2011 / 1	35,256	0	35,256	
Total	26,149,655	753,664,230	779,813,885	

Notes:

(2) Provided by TDI. Accident years ending 9/30/xx

(4) = (2) + (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Summary of Industry Historical Paid Loss as of 12/31/10
 Tier 1 – Territory 9 (Nueces County)

Accident Year	Paid Loss Excluding Expense		Total
	Non-Hurricane (1)	Hurricane (2)	
2001	1,394,445	0	1,394,445
2002	1,227,528	0	1,227,528
2003	2,226,916	68,887	2,295,803
2004	569,877	0	569,877
2005	752,552	119,899	872,451
2006	621,501	0	621,501
2007	833,793	0	833,793
2008	610,905	700,173	1,311,078
2009	451,308	0	451,308
2010	3,151,223	0	3,151,223
2011 / 1	3,592,168	0	3,592,168
Total	15,432,216	888,959	16,321,175

Notes:

(2) Provided by TDI. Accident years ending 9/30/xx

(4) = (2) + (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Summary of Industry Historical Paid Loss as of 12/31/10
Tier 1 – Territory 10 (Other Tier 1)

Accident Year	Paid Loss Excluding Expense			Total
	Non-Hurricane	Hurricane		
(1)	(2)	(3)	(4)	
2001	2,426,814	0	2,426,814	
2002	5,925,066	0	5,925,066	
2003	8,019,872	9,193,796	17,213,668	
2004	990,613	0	990,613	
2005	2,887,977	113,017,544	115,905,521	
2006	1,807,548	0	1,807,548	
2007	4,528,912	5,461,397	9,990,309	
2008	2,063,575	540,931,488	542,995,063	
2009	2,116,296	0	2,116,296	
2010	5,433,656	0	5,433,656	
2011 / 1	25,528,484	0	25,528,484	
Total	61,728,813	668,604,225	730,333,038	

Notes:

(2) Provided by TDI. Accident years ending 9/30/xx

(4) = (2) + (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Exhibit 2
 Sheet 4d

Summary of Industry Historical Paid Loss as of 12/31/10
 Tier 2 – (Territories 1 and 11)

Accident Year	Paid Loss Excluding Expense			Total
	(1)	(2)	(3)	
2001		23,547,404	0	23,547,404
2002		7,950,367	0	7,950,367
2003		7,302,129	2,883,350	10,185,479
2004		3,749,247	0	3,749,247
2005		3,842,226	30,359,672	34,201,898
2006		4,907,133	0	4,907,133
2007		4,911,236	328,111	5,239,347
2008		8,757,963	308,110,446	316,868,409
2009		8,422,447	0	8,422,447
2010		8,241,765	0	8,241,765
2011 / 1		7,958	0	7,958
Total		81,639,875	341,681,579	423,321,454

Notes:

(2) Provided by TDI. Accident years ending 9/30/xx

(4) = (2) + (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Calculation of Net Trend Factors

Year / Quarter	Average EPPR		
(1)	(2)	(3) Current Average Earned Date	7/1/2010
2003 / 3	963.75	(4) Current Average Accident Date	4/1/2010
2004 / 3	1,014.22	(5) Prospective Average Earned / Accident Date	1/1/2013
2005 / 3	1,046.27	(6) Premium Trend Length	2.500
2006 / 3	1,115.66	(7) Loss Trend Length	2.750
2007 / 3	1,257.68	(8) Selected Premium Trend	2.9%
2008 / 3	1,298.03	(9) Selected Loss Trend	2.2%
2009 / 3	1,306.39		
2010 / 3	1,312.35		
2010 / 4	1,302.94		

Accident Year	Current Premium Trend	Current Loss Trend	Prospective Premium Trend	Prospective Loss Trend	Net Trend Factor
(10)	(11)	(12)	(13)	(14)	(15)
2001	1.432	1.300	1.075	1.062	0.896
2002	1.392	1.275	1.075	1.062	0.905
2003	1.352	1.270	1.075	1.062	0.928
2004	1.285	1.198	1.075	1.062	0.921
2005	1.245	1.149	1.075	1.062	0.911
2006	1.168	1.092	1.075	1.062	0.923
2007	1.036	1.043	1.075	1.062	0.994
2008	1.004	1.025	1.075	1.062	1.008
2009	0.997	1.013	1.075	1.062	1.003
2010	0.993	1.000	1.075	1.062	0.995
2011 / 1	0.975	0.981	1.056	1.042	0.993

Notes:

- (2) Exhibit 3, Sheet 2 (9)
- (3) Latest Year / Quarter Ending Date - 6 Months
- (4) Latest Accident Year Ending Date - 6 Months
- (5) Rate Effective Date + 12 Months
- (6) = (5) - (3)
- (7) = (5) - (4)
- (8) Exhibit 3, Sheet 2
- (9) Exhibit 3, Sheet 3a
- (11) = (2) Indexed to 2010 / 4
- (12) Exhibit 3, Sheet 3a
- (13) = [1 + (8)] ^ (6)
- (14) = [1 + (9)] ^ (7)
- (15) = [(12) * (14)] / [(11) * (13)]

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Paid Loss Development Factors
Statewide Industry Extended Coverage Dwelling Paid Loss

Accident Year	<u>Months of Development</u>									
	15 (1)	27 (2)	39 (3)	51 (4)	63 (5)	75 (6)	87 (7)	99 (8)	111 (9)	111 (10)
2001		66,532	76,918	77,752	78,124	78,242	78,270	78,350	78,374	78,379
2002		58,496	62,455	63,206	63,293	63,368	63,448	63,525	63,541	63,545
2003		82,086	88,066	88,446	88,704	89,022	89,082	89,097	89,109	
2004		30,571	32,466	32,708	33,429	33,493	33,527	33,575		
2005		124,373	152,899	155,841	160,133	163,221	163,331			
2006		49,335	53,120	53,492	53,624	53,755				
2007		53,874	59,731	61,175	61,738					
2008		435,381	557,638	625,902						
2009		114,845	136,611							
2010		63,725								

Accident Year	<u>Development Factors</u>									
	15 - 27 (1)	27 - 39 (2)	39 - 51 (3)	51 - 63 (4)	63 - 75 (5)	75 - 87 (6)	87 - 99 (7)	99 - 111 (8)	111 - Ult (9)	111 - Ult (10)
2001		1.156	1.011	1.005	1.002	1.000	1.001	1.000	1.000	
2002		1.068	1.012	1.001	1.001	1.001	1.001	1.000	1.000	
2003		1.073	1.004	1.003	1.004	1.001	1.000	1.000		
2004		1.062	1.007	1.022	1.002	1.001	1.001			
2005		1.229	1.019	1.028	1.019	1.001				
2006		1.077	1.007	1.002	1.002					
2007		1.109	1.024	1.009						
2008		1.281	1.122							
2009		1.190								
Average		1.138	1.026	1.010	1.005	1.001	1.001	1.000	1.000	
Avg 5 Year		1.177	1.036	1.013	1.006	1.001	1.001	1.000	1.000	
Prior		1.111	1.011	1.008	1.003	1.001	1.001	1.000	1.000	1.000
Selected		1.124	1.018	1.009	1.004	1.001	1.001	1.000	1.000	1.000
Cumulative		1.163	1.034	1.015	1.006	1.002	1.001	1.000	1.000	1.000

Notes:
Provided by TICO. Accident years ending 9/30/xx

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Premium Trend Analysis
TWIA Residential Earned Premium at Present Rates

Year / Quarter	Policies In-Force	Annualized		On- Level Factors	Premium at Present Rates		Earned Premium at Present Rates		Exponential Fitted Trends			
		In-Force	Written Premium		Written	Earned	Annualized	Average	All-Year	5-Year	4-Year	3-Year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2002 / 2	71,690		13,111,977	1.502	19,697,061	14,965,961						
2002 / 3	75,274		15,683,794	1.502	23,560,494	16,514,384						
2002 / 4	77,754		11,162,970	1.502	16,769,226	17,952,712						
2003 / 1	79,344		10,803,176	1.502	16,228,736	18,663,970	68,097,027					
2003 / 2	81,586	77,253	16,016,608	1.502	24,060,453	19,527,837	72,658,903	940.54	956.98			
2003 / 3	86,236	79,860	19,030,210	1.502	28,587,543	20,820,251	76,964,770	963.75	969.17			
2003 / 4	87,621	82,463	12,722,905	1.502	19,112,590	21,680,697	80,692,754	978.53	981.52			
2004 / 1	88,917	84,893	13,413,379	1.371	18,384,884	22,205,162	84,233,947	992.23	994.02			
2004 / 2	90,024	87,145	19,533,071	1.371	26,772,765	22,856,457	87,562,566	1,004.79	1,006.69			
2004 / 3	92,888	89,031	22,935,131	1.371	31,435,757	23,554,883	90,297,198	1,014.22	1,019.51			
2004 / 4	94,102	90,673	15,411,121	1.371	21,123,065	24,176,995	92,793,497	1,023.39	1,032.50			
2005 / 1	95,514	92,307	14,585,888	1.371	19,991,969	24,650,409	95,238,744	1,031.76	1,045.65			
2005 / 2	95,477	93,814	20,801,454	1.371	28,511,259	25,060,311	97,442,598	1,038.68	1,058.98			
2005 / 3	98,517	95,199	25,464,039	1.371	34,901,974	25,716,066	99,603,781	1,046.27	1,072.47			
2005 / 4	99,740	96,607	17,242,895	1.371	23,633,763	26,518,733	101,945,519	1,055.26	1,086.13			
2006 / 1	100,814	97,975	17,187,974	1.371	23,558,487	27,188,046	104,483,156	1,066.43	1,099.97	1,136.02		
2006 / 2	107,423	100,130	31,107,333	1.371	42,636,886	29,013,656	108,436,500	1,082.95	1,113.99	1,147.38		
2006 / 3	119,972	104,305	40,282,453	1.358	54,704,331	33,648,953	116,369,388	1,115.66	1,128.18	1,158.85		
2006 / 4	131,780	110,992	31,080,575	1.329	41,319,312	38,111,191	127,961,846	1,152.89	1,142.55	1,170.44		
2007 / 1	147,828	120,874	37,520,115	1.276	47,869,675	43,375,989	144,149,789	1,192.56	1,157.11	1,182.15	1,244.12	
2007 / 2	168,516	134,387	57,350,584	1.276	73,170,186	50,412,596	165,548,730	1,231.88	1,171.85	1,193.97	1,249.84	
2007 / 3	192,863	151,135	66,527,259	1.276	84,878,158	58,180,153	190,079,929	1,257.68	1,186.78	1,205.91	1,255.59	
2007 / 4	201,249	168,930	42,163,238	1.276	53,793,558	63,808,198	215,776,936	1,277.31	1,201.90	1,217.97	1,261.36	
2008 / 1	204,041	184,641	43,831,073	1.208	52,943,781	65,590,411	237,991,358	1,288.94	1,217.21	1,230.14	1,267.16	1,292.92
2008 / 2	207,333	196,519	66,980,792	1.179	78,980,401	66,962,343	254,541,105	1,295.25	1,232.72	1,242.45	1,272.99	1,294.95
2008 / 3	214,269	204,047	77,031,575	1.179	90,831,782	68,498,514	264,859,466	1,298.03	1,248.43	1,254.87	1,278.84	1,296.99
2008 / 4	212,576	208,139	45,077,819	1.179	53,153,510	69,023,481	270,074,749	1,297.57	1,264.33	1,267.42	1,284.72	1,299.04
2009 / 1	212,646	210,630	50,763,638	1.087	55,162,865	69,220,925	273,705,263	1,299.46	1,280.44	1,280.09	1,290.63	1,301.09
2009 / 2	213,308	212,453	78,390,421	1.050	82,309,942	69,857,532	276,600,452	1,301.94	1,296.76	1,292.89	1,296.57	1,303.14
2009 / 3	214,650	213,247	86,983,368	1.050	91,332,536	70,481,484	278,583,422	1,306.39	1,313.28	1,305.82	1,302.53	1,305.19
2009 / 4	214,896	213,585	53,398,862	1.050	56,068,805	70,801,617	280,361,558	1,312.65	1,330.01	1,318.88	1,308.52	1,307.25
2010 / 1	215,151	214,188	51,747,346	1.050	54,334,713	70,984,981	282,125,613	1,317.19	1,346.95	1,332.07	1,314.54	1,309.31
2010 / 2	218,545	215,156	80,792,227	1.050	84,831,838	71,220,712	283,488,793	1,317.60	1,364.12	1,345.39	1,320.58	1,311.37
2010 / 3	225,647	217,185	89,415,866	1.050	93,886,659	72,015,181	285,022,490	1,312.35	1,381.50	1,358.84	1,326.65	1,313.44
2010 / 4	227,921	220,188	56,163,692	1.050	58,971,877	72,671,425	286,892,299	1,302.94	1,399.10	1,372.43	1,332.75	1,315.51
(14) Average Annual Change									5.2%	4.1%	1.9%	0.6%
(15) Correlation Coefficient									92.4%	72.9%	65.4%	66.0%
(16) Selected Premium Trend												2.9%

- Notes:
- (2) Provided by TWIA
 - (3) Calculated from (2) using uniform quarterly earning assumption
 - (4) Provided by TWIA
 - (5) Cumulative effect of annual rate changes
 - (6) = (4) * (5) Indexed to 2009 / 4
 - (7) Calculated from (6) using uniform quarterly earning assumption
 - (8) = Sum of (7) for prior 4 quarters
 - (9) = (8) / (3)
 - (10) - (13) = (9) fitted to an exponential distribution
 - (14) Fitted average annual change
 - (15) Evaluates the predictability of the fitted curve
 - (16) Selected based on judgment

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Loss Trend Analysis
 Summary of Indices and Calculation of Prospective Loss Costs

Calendar Year Ending 9/30/xx	Statewide Boeckh	Coastal Boeckh	Modified CPI	Weighted Average
(1)	(2)	(3)	(4)	(5)
2001	1.346	1.373	1.079	1.300
2002	1.316	1.340	1.081	1.275
2003	1.304	1.332	1.085	1.270
2004	1.219	1.242	1.065	1.198
2005	1.162	1.183	1.047	1.149
2006	1.100	1.114	1.024	1.092
2007	1.044	1.057	1.002	1.043
2008	1.027	1.037	0.987	1.025
2009	1.014	1.019	0.996	1.013
2010	1.000	1.000	1.000	1.000

Factors to Adjust For Prospective Loss Costs

(6) Fitted Trend	2.4%	2.7%	0.7%	2.2%
(7) Cost Factor	1.067	1.076	1.019	1.062

Notes:

- (2) = Exhibit 3, Sheet 3b trended forward to 9/30/2010
- (3) = Exhibit 3, Sheet 3c trended forward to 9/30/2010
- (4) = Exhibit 3, Sheet 3d
- (5) = 25% CPI and 75% Boeckh (most appropriate available by year)
- (6) = (2) - (5) fitted to an exponential curve using 5 years' data
- (7) = $[1 + (6)]^{2.75}$ (trended from 4/1/2010 to 1/1/2013)

**Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review**

Loss Trend Analysis

Boeckh Residential Construction Index Trend (Statewide)

Calendar Year Ending	Texas Statewide Index	Fitted Trends								
		All Years Linear	Exponential	5 Years Linear	Exponential	4 Years Linear	Exponential	3 Years Linear	Exponential	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
3/31/2001	1503.33	1464.95	1481.18							
6/30/2001	1510.93	1481.69	1495.22							
9/30/2001	1521.69	1498.42	1509.39							
12/31/2001	1534.91	1515.15	1523.70							
3/31/2002	1545.25	1531.89	1538.14							
6/30/2002	1552.90	1548.62	1552.72							
9/30/2002	1556.45	1565.35	1567.44							
12/31/2002	1553.48	1582.09	1582.30							
3/31/2003	1552.38	1598.82	1597.30							
6/30/2003	1558.58	1615.55	1612.44							
9/30/2003	1571.41	1632.29	1627.72							
12/31/2003	1595.89	1649.02	1643.15							
3/31/2004	1625.56	1665.75	1658.72							
6/30/2004	1652.06	1682.48	1674.45							
9/30/2004	1680.19	1699.22	1690.32							
12/31/2004	1705.73	1715.95	1706.34							
3/31/2005	1728.03	1732.68	1722.51							
6/30/2005	1748.11	1749.42	1738.84							
9/30/2005	1762.69	1766.15	1755.32							
12/31/2005	1780.52	1782.88	1771.96							
3/31/2006	1803.56	1799.62	1788.76	1860.20	1860.68					
6/30/2006	1829.79	1816.35	1805.71	1871.81	1871.82					
9/30/2006	1862.05	1833.08	1822.83	1883.42	1883.01					
12/31/2006	1896.38	1849.82	1840.11	1895.03	1894.28					
3/31/2007	1923.66	1866.55	1857.55	1906.64	1905.61	1942.38	1942.76			
6/30/2007	1945.15	1883.28	1875.16	1918.25	1917.02	1950.21	1950.40			
9/30/2007	1962.77	1900.02	1892.93	1929.86	1928.49	1958.05	1958.07			
12/31/2007	1973.20	1916.75	1910.88	1941.47	1940.02	1965.88	1965.77			
3/31/2008	1980.60	1933.48	1928.99	1953.08	1951.63	1973.72	1973.50	1980.00	1980.20	
6/30/2008	1990.82	1950.22	1947.27	1964.69	1963.31	1981.55	1981.26	1986.87	1986.96	
9/30/2008	1994.53	1966.95	1965.73	1976.30	1975.06	1989.38	1989.05	1993.74	1993.73	
12/31/2008	1996.51	1983.68	1984.36	1987.91	1986.87	1997.22	1996.87	2000.61	2000.53	
3/31/2009	2002.14	2000.42	2003.17	1999.52	1998.76	2005.05	2004.72	2007.48	2007.36	
6/30/2009	2008.57	2017.15	2022.16	2011.13	2010.72	2012.88	2012.60	2014.35	2014.20	
9/30/2009	2020.12	2033.88	2041.33	2022.74	2022.75	2020.72	2020.52	2021.21	2021.07	
12/31/2009	2031.85	2050.61	2060.68	2034.35	2034.85	2028.55	2028.46	2028.08	2027.96	
3/31/2010	2043.58	2067.35	2080.21	2045.96	2047.03	2036.39	2036.44	2034.95	2034.88	
6/30/2010	2049.82	2084.08	2099.93	2057.57	2059.27	2044.22	2044.44	2041.82	2041.82	
9/30/2010	2048.71	2100.81	2119.83	2069.18	2071.60	2052.05	2052.48	2048.69	2048.78	
12/31/2010	2046.11	2117.55	2139.93	2080.79	2083.99	2059.89	2060.55	2055.56	2055.77	
Annual Trend		3.2%	3.8%	2.2%	2.4%	1.5%	1.6%	1.3%	1.4%	
R-Squared		0.967	0.963	0.881	0.870	0.957	0.955	0.952	0.953	

Notes:

(2) = Average Index for Austin, Corpus Christi, Dallas, El Paso, Fort Worth, Houston, Odessa, and San Antonio

(3) - (10) = (2) fitted to linear and exponential distributions

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Loss Trend Analysis
Boeckh Residential Construction Index Trend (Coastal)

Calendar Year Ending	Texas Coastal Index	Fitted Trends		5 Years		4 Years		3 Years	
		All Years Linear	Exponential	Linear	Exponential	Linear	Exponential	Linear	Exponential
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
3/31/2001	1493.15	1448.22	1466.96						
6/30/2001	1500.94	1465.91	1481.63						
9/30/2001	1513.63	1483.61	1496.45						
12/31/2001	1527.55	1501.30	1511.42						
3/31/2002	1539.11	1518.99	1526.53						
6/30/2002	1547.99	1536.69	1541.80						
9/30/2002	1550.72	1554.38	1557.22						
12/31/2002	1546.51	1572.07	1572.80						
3/31/2003	1543.29	1589.77	1588.53						
6/30/2003	1547.99	1607.46	1604.42						
9/30/2003	1559.86	1625.15	1620.46						
12/31/2003	1584.94	1642.85	1636.67						
3/31/2004	1616.44	1660.54	1653.04						
6/30/2004	1644.67	1678.24	1669.57						
9/30/2004	1672.98	1695.93	1686.27						
12/31/2004	1698.09	1713.62	1703.14						
3/31/2005	1720.35	1731.32	1720.17						
6/30/2005	1740.42	1749.01	1737.38						
9/30/2005	1756.55	1766.70	1754.76						
12/31/2005	1776.85	1784.40	1772.31						
3/31/2006	1803.22	1802.09	1790.03	1856.40	1857.47				
6/30/2006	1831.27	1819.79	1807.94	1869.66	1870.08				
9/30/2006	1865.04	1837.48	1826.02	1882.92	1882.77				
12/31/2006	1900.04	1855.17	1844.28	1896.18	1895.55				
3/31/2007	1925.97	1872.87	1862.73	1909.45	1908.42	1941.45	1942.15		
6/30/2007	1947.53	1890.56	1881.36	1922.71	1921.37	1951.33	1951.71		
9/30/2007	1966.27	1908.25	1900.18	1935.97	1934.41	1961.20	1961.31		
12/31/2007	1977.64	1925.95	1919.18	1949.23	1947.54	1971.08	1970.96		
3/31/2008	1985.12	1943.64	1938.38	1962.49	1960.76	1980.95	1980.66	1985.39	1985.75
6/30/2008	1998.87	1961.33	1957.77	1975.76	1974.06	1990.83	1990.41	1994.57	1994.73
9/30/2008	2004.56	1979.03	1977.35	1989.02	1987.46	2000.70	2000.20	2003.75	2003.75
12/31/2008	2009.10	1996.72	1997.12	2002.28	2000.95	2010.57	2010.05	2012.94	2012.81
3/31/2009	2018.95	2014.42	2017.10	2015.54	2014.53	2020.45	2019.94	2022.12	2021.92
6/30/2009	2026.06	2032.11	2037.27	2028.81	2028.21	2030.32	2029.88	2031.31	2031.06
9/30/2009	2039.05	2049.80	2057.65	2042.07	2041.97	2040.20	2039.87	2040.49	2040.24
12/31/2009	2052.25	2067.50	2078.23	2055.33	2055.83	2050.07	2049.90	2049.67	2049.47
3/31/2010	2065.45	2085.19	2099.02	2068.59	2069.79	2059.95	2059.99	2058.86	2058.74
6/30/2010	2074.59	2102.88	2120.01	2081.85	2083.83	2069.82	2070.13	2068.04	2068.05
9/30/2010	2078.31	2120.58	2141.21	2095.12	2097.98	2079.70	2080.32	2077.23	2077.40
12/31/2010	2078.47	2138.27	2162.63	2108.38	2112.22	2089.57	2090.55	2086.41	2086.79
Annual Trend		3.3%	4.1%	2.5%	2.7%	1.9%	2.0%	1.8%	1.8%
R-Squared		0.971	0.969	0.922	0.911	0.981	0.979	0.981	0.981

Notes:

- (2) = Average Index for Corpus Christi and Houston
- (5) - (10) = (2) fitted to linear and exponential distributions

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Loss Trend Analysis
Modified Consumer Price Index - External Trend

Calendar Year Ending	Modified CPI	Fitted Trends		5 Years		4 Years		3 Years	
		All Years Linear	Exponential	Linear	Exponential	Linear	Exponential	Linear	Exponential
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
9/30/2000	163.61	162.01	162.20						
12/31/2000	164.37	162.50	162.66						
3/31/2001	165.07	162.99	163.12						
6/30/2001	165.68	163.48	163.58						
9/30/2001	165.69	163.96	164.05						
12/31/2001	165.84	164.45	164.51						
3/31/2002	165.55	164.94	164.98						
6/30/2002	165.22	165.43	165.45						
9/30/2002	165.32	165.92	165.92						
12/31/2002	165.32	166.40	166.39						
3/31/2003	164.94	166.89	166.86						
6/30/2003	164.84	167.38	167.33						
9/30/2003	164.70	167.87	167.81						
12/31/2003	164.88	168.35	168.28						
3/31/2004	165.75	168.84	168.76						
6/30/2004	166.66	169.33	169.24						
9/30/2004	167.76	169.82	169.72						
12/31/2004	168.68	170.30	170.20						
3/31/2005	170.03	170.79	170.68						
6/30/2005	170.63	171.28	171.17						
9/30/2005	170.66	171.77	171.65						
12/31/2005	171.45	172.25	172.14						
3/31/2006	171.94	172.74	172.63	175.25	175.23				
6/30/2006	172.99	173.23	173.12	175.55	175.52				
9/30/2006	174.54	173.72	173.61	175.85	175.82				
12/31/2006	175.48	174.21	174.10	176.15	176.12				
3/31/2007	176.13	174.69	174.60	176.45	176.42	178.77	178.75		
6/30/2007	177.26	175.18	175.09	176.74	176.72	178.82	178.81		
9/30/2007	178.29	175.67	175.59	177.04	177.02	178.88	178.87		
12/31/2007	179.19	176.16	176.09	177.34	177.32	178.93	178.92		
3/31/2008	180.17	176.64	176.59	177.64	177.62	178.99	178.98	180.94	180.94
6/30/2008	180.49	177.13	177.09	177.94	177.92	179.04	179.03	180.71	180.71
9/30/2008	181.00	177.62	177.59	178.24	178.22	179.10	179.09	180.48	180.48
12/31/2008	181.01	178.11	178.09	178.54	178.53	179.15	179.15	180.25	180.24
3/31/2009	180.49	178.59	178.60	178.84	178.83	179.21	179.20	180.01	180.01
6/30/2009	180.08	179.08	179.11	179.14	179.13	179.26	179.26	179.78	179.78
9/30/2009	179.34	179.57	179.61	179.44	179.44	179.32	179.31	179.55	179.55
12/31/2009	178.81	180.06	180.12	179.74	179.74	179.37	179.37	179.32	179.32
3/31/2010	178.45	180.54	180.64	180.03	180.05	179.43	179.43	179.09	179.09
6/30/2010	178.66	181.03	181.15	180.33	180.35	179.48	179.48	178.85	178.85
9/30/2010	178.71	181.52	181.66	180.63	180.66	179.54	179.54	178.62	178.62
12/31/2010	178.78	182.01	182.18	180.93	180.97	179.59	179.59	178.39	178.39
Annual Trend		1.1%	1.1%	0.7%	0.7%	0.1%	0.1%	-0.5%	-0.5%
R-Squared		0.888	0.890	0.461	0.463	0.038	0.039	0.738	0.739

Notes:

- (2) = Weighted average of CPI for Lodging, Apparel, Furnishings, and Medical Care
- (3) - (10) = (2) fitted to linear and exponential distributions

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Development of LAE factor Using TWIA Commercial + Residential Experience

Accident Year	Projected Ultimate Loss	Projected Ultimate LAE	Ultimate LAE to Loss Ratio	Hurricane Indicator
(1)	(2)	(3)	(4)	(5)
1977		72	132	1.833
1978		129	147	1.140
1979		1,423	488	0.343
1980		12,911	1,318	0.102 H
1981		2,512	543	0.216
1982		796	565	0.710
1983		148,999	9,127	0.061 H
1984		999	324	0.324
1985		512	297	0.580
1986		881	505	0.573 H
1987		1,897	1,056	0.557
1988		1,160	357	0.308
1989		12,296	3,528	0.287 H
1990		335	225	0.672
1991		1,217	729	0.599
1992		489	554	1.133
1993		3,375	1,375	0.407
1994		679	507	0.747
1995		2,977	903	0.303
1996		1,166	582	0.499
1997		2,964	1,343	0.453
1998		22,401	4,732	0.211
1999		8,773	2,388	0.272 H
2000		6,227	1,885	0.303
2001		3,858	1,880	0.487
2002		24,746	5,226	0.211
2003		24,606	5,122	0.208 H
2004		5,167	1,471	0.285
2005		154,793	19,604	0.127 H
2006		4,348	1,115	0.256
2007		15,950	5,012	0.314 H
2008		2,393,544	303,359	0.127 H
2009		11,237	6,680	0.594
2010		15,748	10,127	0.643
All Years Total	2,889,187	393,206	0.136	
Hurricane Years Total	2,772,753	349,963	0.126	
Non-Hurricane Years				
Total	116,434	43,243	0.371	
10 Year	97,862	35,041	0.358	

Notes:

- (2) Exhibit 4, Sheet 2
- (3) Exhibit 4, Sheet 4
- (4) = (3) / (2)
- (5) "H" indicates hurricane year

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Ultimate Loss (TWIA All Lines)

Accident Year	Incurred Loss at 12/31/10	Development Factor	Indicated Ultimate Loss
(1)	(2)	(3)	(4)
1977			72
1978			129
1979			1,423
1980			12,911
1981			2,512
1982			796
1983			148,999
1984			999
1985			512
1986			881
1987			1,897
1988			1,160
1989			12,296
1990			335
1991			1,217
1992			489
1993			3,375
1994			679
1995			2,977
1996			1,166
1997			2,964
1998			22,401
1999			8,773
2000			6,227
2001			3,858
2002			24,746
2003			24,606
2004	5,167	1.000	5,167
2005	154,793	1.000	154,793
2006	4,365	0.996	4,348
2007	15,855	1.006	15,950
2008	2,384,008	1.004	2,393,544
2009	11,049	1.017	11,237
2010	15,215	1.035	15,748

Notes:

- (2) Exhibit 4, Sheet 3
- (3) Exhibit 4, Sheet 3
- (4) 2002 - 2009: (2) * (3); 1977 - 2001: from prior TWIA annual statements

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Incurred Loss Development Factors
 TWIA Schedule P Incurred Loss (Including IBNR)

Accident Year	Months of Development							
	12 (1)	24 (2)	36 (3)	48 (4)	60 (5)	72 (6)	84 (7)	(8)
2001		5,278	4,308	3,868	3,857	3,856	3,856	3,858
2002		29,984	25,765	24,534	24,555	25,642	24,746	24,746
2003		25,109	25,512	24,099	24,490	24,605	24,606	24,606
2004		4,828	5,438	5,169	5,167	5,169	5,167	5,167
2005		164,811	157,442	152,243	153,502	154,576	154,793	
2006		4,471	4,616	4,507	4,279	4,365		
2007		16,446	15,813	15,537	15,855			
2008		1,902,481	1,774,393	2,384,008				
2009		8,267	11,049					
2010		15,215						

Accident Year	Development Factors							
	12 - 24 (1)	24 - 36 (2)	36 - 48 (3)	48 - 60 (4)	60 - 72 (5)	72 - 84 (6)	84 - Ult (7)	(8)
2001		0.816	0.898	0.997	1.000	1.000	1.001	
2002		0.859	0.952	1.001	1.044	0.965	1.000	
2003		1.016	0.945	1.016	1.005	1.000	1.000	
2004		1.126	0.951	1.000	1.000	1.000	1.000	
2005		0.955	0.967	1.008	1.007	1.001		
2006		1.032	0.976	0.949	1.020			
2007		0.962	0.983	1.020				
2008		0.933	1.344					
2009		1.337						
Average		1.004	1.002	0.999	1.013	0.993	1.000	
Avg x hi / lo		0.983	0.962	1.004	1.008	1.000	1.000	
Avg 3 Year		1.077	1.101	0.993	1.009	1.000	1.000	
Avg 5 Year		1.044	1.044	0.999	1.015	0.993	1.000	
Prior		0.982	0.957	0.995	1.007	0.994	0.999	1.000
Selected		1.018	1.013	0.998	1.010	0.996	1.000	1.000
Cumulative		1.035	1.017	1.004	1.006	0.996	1.000	1.000

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Ultimate LAE (TWIA All Lines)

Accident Year	Incurred ALAE at 12/31/10	Development Factor	Indicated Ultimate ALAE	Incurred ULAE	Incurred LAE
(1)	(2)	(3)	(4)	(5)	(6)
1977					132
1978					147
1979					488
1980					1,318
1981					543
1982					565
1983					9,127
1984					324
1985				160	297
1986				270	505
1987				652	1,056
1988				235	357
1989				2,727	3,528
1990				119	225
1991				403	729
1992				270	554
1993				806	1,375
1994				192	507
1995				698	903
1996				355	582
1997				892	1,343
1998				3,920	4,732
1999				1,757	2,388
2000				1,209	1,885
2001				1,207	1,880
2002				3,643	5,226
2003				3,240	5,122
2004		845	1.000	845	1,471
2005		15,253	0.999	15,238	19,604
2006		879	1.003	882	1,115
2007		2,921	1.001	2,924	5,012
2008		201,098	0.971	195,266	303,359
2009		3,740	1.049	3,923	6,680
2010		958	1.055	1,011	10,127

Notes:

- (2) Exhibit 4, Sheet 5
- (3) Exhibit 4, Sheet 5
- (4) 2002 - 2009: (2) * (3); 1986 - 2001: from TWIA's annual statements
- (5) From TWIA's annual statements
- (6) 1986 - 2009: (4) + (5); prior years from prior TWIA annual statements

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Incurred ALAE Development Factors
 TWIA Schedule P Incurred ALAE (Including IBNR)

Accident Year	Months of Development							
	12 (1)	24 (2)	36 (3)	48 (4)	60 (5)	72 (6)	84 (7)	(8)
2001		1,207	1,185	1,313	1,201	1,207	1,207	1,207
2002		3,179	3,139	3,297	3,349	3,501	3,643	3,643
2003		2,882	3,017	3,133	3,235	3,254	3,255	3,240
2004		814	837	839	844	847	845	845
2005		12,902	16,742	18,549	16,151	15,253	15,253	
2006		704	891	899	879	879		
2007		2,660	3,107	2,921	2,921			
2008		167,316	139,787	201,098				
2009		7,335	3,740					
2010		958						

Accident Year	Development Factors							
	12 - 24 (1)	24 - 36 (2)	36 - 48 (3)	48 - 60 (4)	60 - 72 (5)	72 - 84 (6)	84 - Ult (7)	(8)
2001		0.982	1.108	0.915	1.005	1.000	1.000	
2002		0.987	1.050	1.016	1.045	1.041	1.000	
2003		1.047	1.038	1.033	1.006	1.000	0.995	
2004		1.028	1.002	1.006	1.004	0.998	1.000	
2005		1.298	1.108	0.871	0.944	1.000		
2006		1.266	1.009	0.978	1.000			
2007		1.168	0.940	1.000				
2008		0.835	1.439					
2009		0.510						
Average		1.013	1.087	0.974	1.001	1.008	0.999	
Avg x hi / lo		1.045	1.053	0.983	1.004	1.000	1.000	
Avg 3 Year		0.838	1.129	0.949	0.983	0.999	0.998	
Avg 5 Year		1.015	1.100	0.977	1.000	1.008	0.999	
Prior		1.118	1.030	0.968	1.005	1.007	0.997	1.000
Selected		1.006	1.080	0.970	0.998	1.004	0.999	1.000
Cumulative		1.055	1.049	0.971	1.001	1.003	0.999	1.000

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Summary of Indicated Hurricane Loss & LAE Ratios

Exhibit 5

Basis for Hurricane Loss Ratio	Indicated Loss Ratio	LAE Factor	Indicated Loss & LAE Ratio
(1)	(2)	(3)	(4)
Industry Experience	35.7%	0.126	40.2%
<u>Hurricane Models</u>			
AIR Model	49.8%	0.126	56.1%
RMS Model	46.1%	0.126	51.9%
Average of Models	48.0%	0.126	54.0%

Notes:

- (2) Exhibit 6 - Exhibit 8, Sheet 1
- (3) Exhibit 4, Sheet 1
- (4) = (2) * [1 + (3)]

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience – Residential Extended Coverage
1964 - 2010 -- Hurricane Years Only

Accident Year	Earned Premium at Current TWIA Rate Level	Incurred Loss Ratio
(1)	(2)	(3)
1968	25,355,272	44.1%
1970	25,865,069	80.4%
1971	25,775,954	88.2%
1980	43,779,626	74.8%
1983	77,763,824	376.4%
1986	98,439,793	8.2%
1989	107,624,016	6.6%
1990	102,674,989	17.6%
1999	126,165,146	12.0%
2003	183,330,204	24.7%
2005	225,853,471	127.2%
2007	351,057,998	5.7%
2008	453,224,894	423.8%
<hr/>		
(4) Simple Average Loss Ratio for Hurricane Years		99.2%
(5) Selected Non-Hurricane Loss Ratio		8.7%
(6) Average Hurricane Loss Ratio for Hurricane Years		90.5%
(7) Historical Hurricane Frequency		
(a) 47-Year (10/1/1963 - 9/30/2010)		0.298 (1 Hurricane Every 3.4 years)
(a) 160-Year (10/1/1850 - 9/30/2010)		0.394 (1 Hurricane Every 2.5 years)
Selected Frequency		0.394 (1 Hurricane Every 2.5 years)
(8) Indicated Hurricane Loss Ratio		35.7%

Notes:

- (2) Exhibit 6, Sheet 2. Accident years ending 9/30/xx
- (3) Exhibit 6, Sheet 2. Accident years ending 9/30/xx
- (4) = Average of (3)
- (5) Exhibit 6, Sheet 2
- (6) = (4) - (5)
- (7) Exhibit 9
- (8) = (6) * (7) Selected

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience -- Residential Extended Coverage
1964 - 2010

Exhibit 6
Sheet 2

Accident Year	Earned Premium	Earned Premium at CMR	Earned Premium at Current TWIA Rate Level	Incurred Losses	Incurred Loss Ratio	Hurricane Indicator
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1964		8,694,859	16,981,060	1,278,741	7.5%	
1965		12,141,513	23,712,375	944,410	4.0%	
1966		13,011,528	25,411,514	1,178,131	4.6%	
1967		13,130,860	25,644,570	663,024	2.6%	
1968		12,982,730	25,355,272	11,171,683	44.1%	H
1969		12,499,176	24,410,891	3,218,757	13.2%	
1970		13,243,763	25,865,069	20,786,468	80.4%	H
1971	10,640,335	13,198,133	25,775,954	22,731,206	88.2%	H
1972	12,302,040	13,902,740	27,152,051	2,242,093	8.3%	
1973	12,935,382	12,724,690	24,851,320	4,933,261	19.9%	
1974	12,794,652	11,637,700	22,728,428	2,293,219	10.1%	
1975	13,633,616	12,392,309	24,202,179	3,062,897	12.7%	
1976	17,088,846	13,884,831	27,117,075	1,522,489	5.6%	
1977	23,643,216	17,474,220	34,127,152	972,383	2.8%	
1978	28,157,329	19,320,941	37,733,798	1,449,823	3.8%	
1979	32,867,536	21,563,567	42,113,646	3,940,899	9.4%	
1980	32,179,994	22,416,603	43,779,626		74.8%	H
1981	30,817,037	29,693,419	57,991,247		3.3%	
1982	28,140,159	32,398,474	63,274,218		2.0%	
1983	28,786,234	39,817,626	77,763,824		376.4%	H
1984	20,078,668	34,626,400	67,625,357		8.5%	
1985	30,043,452	53,801,222	105,073,785		3.5%	
1986	36,673,352	50,404,401	98,439,793		8.2%	H
1987	41,598,709	56,111,288	109,585,348		2.1%	
1988	45,044,392	60,442,614	118,044,426		9.3%	
1989	41,745,774	55,107,023	107,624,016		6.6%	H
1990	40,384,195	52,572,959	102,674,989		17.6%	H
1991	46,237,137	51,609,839	100,794,014		80.4%	
1992	44,512,572	47,494,523	92,756,801		6.6%	
1993	50,741,120	54,555,786	106,547,450		10.9%	
1994	57,584,585	50,529,338	98,683,795		6.6%	
1995	60,740,049	55,699,543	108,781,209		8.7%	
1996	71,865,572	59,002,880	115,232,624		5.0%	
1997	79,154,547	58,802,293	114,840,878		6.9%	
1998	80,238,260	66,452,061	129,780,873		30.1%	
1999	71,026,552	64,600,690	126,165,146		12.0%	H
2000	75,114,174	71,144,862	138,945,917		6.8%	
2001	74,726,401	70,910,078	138,487,382		7.9%	
2002	86,289,350	76,607,818	149,615,068		19.6%	
2003	112,200,741	93,871,073	183,330,204		24.7%	H
2004	123,050,217	106,000,535	207,019,045		1.9%	
2005	135,380,924	115,644,379	225,853,471		127.2%	H
2006	154,699,767	126,678,360	247,402,838		2.3%	
2007	219,914,305	179,753,199	351,057,998		5.7%	H
2008	289,558,186	232,065,998	453,224,894		423.8%	H
2009	327,305,758	274,623,247	536,339,201		1.6%	
2010	355,234,508	298,130,875	582,249,597		2.7%	
Total / Average	3,055,129,643	2,863,372,966	5,592,167,388		34.5%	
Average of Non-Hurricane Years					9.7%	
Average of Non-Hurricane Years Excluding 1991					7.6%	
Selected					8.7%	

Notes: (2), (3) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
(4) 1980 - 2004: Sum of Exhibit 6, Sheet 4 - Sheet 7, (5); 1971 - 1979: (3) * 2.0
(5) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
(6) 1980 - 2004: Exhibit 6, Sheet 3; 1964 - 1979: (5) / (4)
(7) "H" indicates occurrence of hurricane(s) during the time period (years ending 9/30/xx)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience -- Residential Extended Coverage

Accident Year	<u>Loss Ratios by Territory / Tier</u>					Weighted Loss Ratio
	Territory 8	Territory 9	Territory 10	Tier 2		
(1)	(2)	(3)	(4)	(5)	(6)	
1981	5.0%	1.9%	2.7%	6.8%	3.3%	
1982	1.5%	1.9%	2.4%	4.3%	2.0%	
1983	977.6%	5.0%	116.9%	157.0%	376.4%	
1984	2.5%	3.8%	13.8%	28.2%	8.5%	
1985	1.3%	4.6%	4.4%	8.9%	3.5%	
1986	1.0%	2.0%	15.2%	12.8%	8.2%	
1987	0.6%	3.0%	2.7%	6.7%	2.1%	
1988	5.4%	5.1%	13.4%	6.8%	9.3%	
1989	6.3%	5.0%	7.1%	16.2%	6.6%	
1990	34.6%	9.4%	9.2%	22.7%	17.6%	
1991	85.7%	13.2%	102.4%	19.2%	80.4%	
1992	1.8%	11.0%	7.8%	23.7%	6.6%	
1993	15.0%	9.7%	8.2%	30.6%	10.9%	
1994	4.1%	6.4%	8.3%	12.6%	6.6%	
1995	4.4%	9.7%	10.7%	36.3%	8.7%	
1996	2.2%	5.8%	6.3%	16.6%	5.0%	
1997	3.1%	5.5%	9.8%	15.8%	6.9%	
1998	30.6%	13.5%	36.0%	16.0%	30.1%	
1999	3.5%	23.3%	13.4%	14.2%	12.0%	
2000	1.3%	3.0%	11.6%	13.6%	6.8%	
2001	6.2%	8.2%	8.3%	38.8%	7.9%	
2002	29.1%	6.7%	18.2%	12.5%	19.6%	
2003	5.8%	9.5%	43.0%	13.9%	24.7%	
2004	1.3%	2.1%	2.1%	4.9%	1.9%	
2005	54.3%	2.9%	222.2%	42.6%	127.2%	
2006	1.2%	2.0%	3.1%	5.6%	2.3%	
2007	2.9%	1.8%	9.0%	5.1%	5.7%	
2008	748.5%	2.2%	362.3%	372.8%	423.8%	
2009	2.5%	0.7%	1.2%	7.9%	1.6%	
2010	0.9%	4.6%	3.1%	7.7%	2.7%	
Average	68.0%	6.1%	35.8%	32.7%	41.0%	

TWIA 2010 Written Premium by Territory / Tier

	Territory 8	Territory 9	Territory 10	Tier 2	Total
(7) Amount	89,209,947	48,549,630	134,520,604	2,677,912	274,958,093
(8) % Share	32.4%	17.7%	48.9%	1.0%	100.0%

Notes:

- (2) Exhibit 6, Sheet 4
- (3) Exhibit 6, Sheet 5
- (4) Exhibit 6, Sheet 6
- (5) Exhibit 6, Sheet 7
- (6) = Weighted average of (2) to (5), using (8)
- (7) Provided by TWIA
- (8) = (7) / (7) Total

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience – Residential Extended Coverage
Tier 1 – Territory 8 (Galveston County)

Accident Year	Earned Premium	Earned Premium at CMR	Factor to TWIA Rate Level	Earned Premium at Current TWIA Rate Level	Incurred Loss	Incurred Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1981	3,358,441	3,858,373	1.953	7,535,402	373,017	5.0%
1982	2,947,993	4,064,797	1.953	7,938,549	117,400	1.5%
1983	4,317,605	6,227,127	1.953	12,161,579	118,889,570	977.6%
1984	3,512,853	6,034,604	1.953	11,785,582	292,543	2.5%
1985	6,066,870	10,370,936	1.953	20,254,438	265,705	1.3%
1986	6,846,710	9,132,983	1.953	17,836,716	187,218	1.0%
1987	7,738,740	9,628,361	1.953	18,804,189	111,242	0.6%
1988	8,043,378	9,774,328	1.953	19,089,263	1,026,666	5.4%
1989	8,149,957	9,454,048	1.953	18,463,756	1,163,813	6.3%
1990	7,816,199	8,736,577	1.953	17,062,535	5,908,943	34.6%
1991	8,645,208	7,897,934	1.953	15,424,665	13,225,287	85.7%
1992	5,826,467	5,085,063	1.953	9,931,128	180,484	1.8%
1993	5,825,916	6,481,849	1.953	12,659,051	1,900,088	15.0%
1994	6,996,874	5,208,232	1.953	10,171,677	420,038	4.1%
1995	8,737,576	7,456,506	1.953	14,562,556	644,169	4.4%
1996	11,652,672	9,263,441	1.953	18,091,500	406,004	2.2%
1997	12,573,252	9,589,398	1.953	18,728,094	573,343	3.1%
1998	13,838,930	10,647,018	1.953	20,793,626	6,371,206	30.6%
1999	14,103,814	11,002,926	1.953	21,488,714	742,130	3.5%
2000	15,784,218	12,429,207	1.953	24,274,241	324,948	1.3%
2001	17,776,666	16,060,195	1.953	31,365,561	1,947,817	6.2%
2002	20,514,469	17,674,547	1.953	34,518,390	10,059,384	29.1%
2003	25,868,450	23,469,344	1.953	45,835,629	2,672,918	5.8%
2004	30,357,860	28,560,478	1.953	55,778,614	731,759	1.3%
2005	36,780,457	32,500,951	1.953	63,474,357	34,444,705	54.3%
2006	43,562,211	34,841,430	1.953	68,045,313	813,430	1.2%
2007	59,282,257	46,980,324	1.953	91,752,573	2,701,632	2.9%
2008	73,789,694	59,018,701	1.953	115,263,523	862,800,508	748.5%
2009	81,999,709	68,997,732	1.953	134,752,571	3,386,158	2.5%
2010	89,665,176	75,447,753	1.953	147,349,462	1,342,464	0.9%
Total	642,380,622			1,105,193,254	1,074,024,589	97.2%

Notes:

- (2) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (3) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (4) Provided by TDI
- (5) = (3) * (4)
- (6) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (7) = (6) / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience – Residential Extended Coverage
Tier 1 – Territory 9 (Nueces County)

Accident Year	Earned Premium	Earned Premium at CMR	Factor to TWIA Rate Level	Earned Premium at Current TWIA Rate Level	Incurred Loss	Incurred Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1981	2,545,487	2,924,404	1.953	5,711,361	109,799	1.9%
1982	2,223,376	3,065,671	1.953	5,987,255	111,420	1.9%
1983	2,331,938	3,838,053	1.953	7,495,718	377,010	5.0%
1984	1,632,317	3,340,038	1.953	6,523,094	249,086	3.8%
1985	2,505,564	5,259,116	1.953	10,271,054	467,721	4.6%
1986	2,977,992	4,759,698	1.953	9,295,690	189,449	2.0%
1987	3,639,667	5,763,454	1.953	11,256,026	335,212	3.0%
1988	3,971,251	6,271,084	1.953	12,247,427	626,491	5.1%
1989	3,702,536	5,649,263	1.953	11,033,011	550,215	5.0%
1990	3,519,306	5,212,712	1.953	10,180,427	955,271	9.4%
1991	4,065,190	5,305,063	1.953	10,360,788	1,367,254	13.2%
1992	3,907,712	5,425,702	1.953	10,596,396	1,170,578	11.0%
1993	4,552,395	6,951,483	1.953	13,576,246	1,312,776	9.7%
1994	5,710,806	6,826,341	1.953	13,331,844	856,369	6.4%
1995	6,908,552	8,191,045	1.953	15,997,111	1,552,987	9.7%
1996	8,568,168	9,344,285	1.953	18,249,389	1,061,115	5.8%
1997	8,425,344	8,165,988	1.953	15,948,175	882,561	5.5%
1998	8,803,621	8,677,461	1.953	16,947,081	2,289,890	13.5%
1999	8,465,256	8,293,153	1.953	16,196,528	3,778,386	23.3%
2000	8,437,094	8,243,368	1.953	16,099,298	485,581	3.0%
2001	8,894,552	8,729,080	1.953	17,047,893	1,394,445	8.2%
2002	10,534,795	9,385,878	1.953	18,330,620	1,227,528	6.7%
2003	13,881,847	12,311,598	1.953	24,044,551	2,295,803	9.5%
2004	15,458,506	14,204,248	1.953	27,740,896	569,877	2.1%
2005	17,471,646	15,284,697	1.953	29,851,013	872,451	2.9%
2006	19,888,512	15,988,222	1.953	31,224,998	621,501	2.0%
2007	29,704,042	23,490,749	1.953	45,877,433	832,164	1.8%
2008	40,565,108	32,210,371	1.953	62,906,855	1,399,663	2.2%
2009	46,363,445	39,013,380	1.953	76,193,131	557,857	0.7%
2010	51,526,582	43,357,997	1.953	84,678,168	3,866,229	4.6%
Total	351,182,607			655,199,477	32,366,689	4.9%

Notes:

- (2) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (3) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (4) Provided by TDI
- (5) = (3) * (4)
- (6) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (7) = (6) / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience -- Residential Extended Coverage
Tier 1 -- Territory 10 (Other Tier 1)

Accident Year	Earned Premium	Earned Premium at CMR	Factor to TWIA Rate Level	Earned Premium at Current TWIA Rate Level	Incurred Loss	Incurred Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1981	6,414,566	7,369,429	1.953	14,392,495	383,360	2.7%
1982	5,695,062	7,852,554	1.953	15,336,038	361,294	2.4%
1983	5,888,781	9,615,868	1.953	18,779,790	21,953,626	116.9%
1984	3,924,651	7,935,696	1.953	15,498,414	2,135,063	13.8%
1985	5,808,825	12,170,263	1.953	23,768,524	1,055,065	4.4%
1986	6,993,722	11,249,089	1.953	21,969,471	3,338,312	15.2%
1987	7,677,374	12,151,616	1.953	23,732,106	634,637	2.7%
1988	8,284,768	13,092,195	1.953	25,569,057	3,434,130	13.4%
1989	7,733,295	11,985,656	1.953	23,407,986	1,670,422	7.1%
1990	7,568,146	11,610,421	1.953	22,675,152	2,095,151	9.2%
1991	8,287,605	11,226,028	1.953	21,924,433	22,444,044	102.4%
1992	8,059,407	10,602,362	1.953	20,706,413	1,625,108	7.8%
1993	8,448,603	11,154,197	1.953	21,784,147	1,776,572	8.2%
1994	9,743,293	10,097,147	1.953	19,719,728	1,637,915	8.3%
1995	10,745,995	11,531,960	1.953	22,521,918	2,416,675	10.7%
1996	13,294,968	12,440,310	1.953	24,295,925	1,520,229	6.3%
1997	15,708,220	13,420,617	1.953	26,210,465	2,569,544	9.8%
1998	16,168,136	14,656,539	1.953	28,624,221	10,312,506	36.0%
1999	14,452,667	13,951,240	1.953	27,246,772	3,655,754	13.4%
2000	14,453,385	14,650,295	1.953	28,612,026	3,332,580	11.6%
2001	15,173,521	15,066,641	1.953	29,425,150	2,428,314	8.3%
2002	17,843,905	16,697,824	1.953	32,610,850	5,929,666	18.2%
2003	23,423,208	20,504,945	1.953	40,046,158	17,213,668	43.0%
2004	27,306,202	23,768,004	1.953	46,418,912	990,613	2.1%
2005	31,012,304	26,717,952	1.953	52,180,160	115,924,240	222.2%
2006	36,545,725	30,919,712	1.953	60,386,198	1,882,548	3.1%
2007	69,945,120	57,063,931	1.953	111,445,857	9,994,446	9.0%
2008	110,187,567	88,341,441	1.953	172,530,834	625,012,835	362.3%
2009	128,275,387	108,011,758	1.953	210,946,963	2,528,453	1.2%
2010	143,235,487	120,608,615	1.953	235,548,625	7,194,139	3.1%
Total	788,299,895			1,438,314,788	877,450,909	61.0%

Notes:

- (2) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (3) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (4) Provided by TDI
- (5) = (3) * (4)
- (6) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (7) = (6) / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Industry Experience – Residential Extended Coverage
Tier 2 – (Territories 1 and 11)

Accident Year	Earned Premium	Eamed Premium at CMR	Factor to TWIA Rate Level	Earned Premium at Current TWIA Rate Level	Incurred Loss	Incurred Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1981	18,498,543	15,541,213	1.953	30,351,989	2,055,581	6.8%
1982	17,273,728	17,415,451	1.953	34,012,376	1,472,069	4.3%
1983	16,247,909	20,136,578	1.953	39,326,737	61,752,490	157.0%
1984	11,008,847	17,316,061	1.953	33,818,267	9,535,536	28.2%
1985	15,662,193	26,000,906	1.953	50,779,769	4,532,749	8.9%
1986	19,854,927	25,262,630	1.953	49,337,916	6,306,903	12.8%
1987	22,542,928	28,567,858	1.953	55,793,027	3,739,010	6.7%
1988	24,744,994	31,305,007	1.953	61,138,679	4,139,098	6.8%
1989	22,159,987	28,018,056	1.953	54,719,263	8,884,751	16.2%
1990	21,480,544	27,013,249	1.953	52,756,875	11,997,188	22.7%
1991	25,239,134	27,180,813	1.953	53,084,128	10,178,608	19.2%
1992	26,718,987	26,381,395	1.953	51,522,864	12,221,034	23.7%
1993	31,914,206	29,968,257	1.953	58,528,006	17,910,197	30.6%
1994	35,133,612	28,397,617	1.953	55,460,546	6,968,697	12.6%
1995	34,347,927	28,520,033	1.953	55,699,624	20,240,594	36.3%
1996	38,349,764	27,954,844	1.953	54,595,810	9,046,495	16.6%
1997	42,447,731	27,626,290	1.953	53,954,144	8,514,675	15.8%
1998	41,427,572	32,471,042	1.953	63,415,945	10,127,907	16.0%
1999	34,004,815	31,353,370	1.953	61,233,132	8,680,187	14.2%
2000	36,439,477	35,821,993	1.953	69,960,352	9,518,422	13.6%
2001	32,881,662	31,054,162	1.953	60,648,778	23,557,044	38.8%
2002	37,396,181	32,849,569	1.953	64,155,208	8,004,832	12.5%
2003	49,027,236	37,585,185	1.953	73,403,866	10,181,009	13.9%
2004	49,927,649	39,467,805	1.953	77,080,623	3,738,542	4.9%
2005	50,116,517	41,140,779	1.953	80,347,941	34,201,898	42.6%
2006	54,703,319	44,928,996	1.953	87,746,329	4,907,133	5.6%
2007	60,982,886	52,218,195	1.953	101,982,135	5,247,017	5.1%
2008	65,015,817	52,495,485	1.953	102,523,682	382,251,867	372.8%
2009	70,667,217	58,600,377	1.953	114,446,536	9,047,152	7.9%
2010	70,807,263	58,716,509	1.953	114,673,342	8,787,391	7.7%
Total	1,077,023,572			1,916,497,889	717,746,076	37.5%

Notes:

- (2) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (3) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (4) Provided by TDI
- (5) = (3) * (4)
- (6) Provided by TDI. Accident years ending 9/30/xx as of 12/31/2010
- (7) = (6) / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Hurricane Loss Ratio – AIR Model

County	TWIA Insured Values (000s) as of 6/30/10	Modeled Loss Cost	Expected Annual Hurricane Loss
(1)	(2)	(3)	(4)
Aransas	1,631,470	4.219	6,883,172
Brazoria	10,634,876	1.616	17,185,960
Calhoun	695,337	2.487	1,729,303
Cameron	2,485,530	2.016	5,010,828
Chambers	1,232,109	2.109	2,598,518
Galveston	16,478,656	3.997	65,865,188
Harris	674,360	3.638	2,453,322
Jefferson	4,862,940	1.747	8,495,556
Kenedy	2,107	1.432	3,017
Kleberg	211,052	1.006	212,318
Matagorda	692,005	2.827	1,956,298
Nueces	8,808,452	2.863	25,218,598
Refugio	71,750	1.657	118,890
San Patricio	1,686,297	2.387	4,025,191
Willacy	75,858	2.354	178,570
Total	50,242,799	2.825	141,934,729
(5) 2010 Earned Premium at Present Rates			285,022,490
(6) Indicated Hurricane Loss Ratio			49.8%

Notes:

- (2) Provided by TWIA
- (3) Exhibit 7, Sheet 2
- (4) = (2) * (3)
- (5) Exhibit 10, Sheet 2
- (6) = (4) Total / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
AIR Simulated Hurricane Results

County	TWIA Insured Values (000s) as of 12/31/10	Average Annual Modeled Loss	Provision for Storm Surge	Modeled Loss Cost
(1)	(2)	(3)	(4)	(5)
Aransas	1,982,297	8,329,781	1.004	4.219
Brazoria	12,893,821	20,754,790	1.004	1.616
Calhoun	538,348	1,333,657	1.004	2.487
Cameron	3,161,400	6,348,356	1.004	2.016
Chambers	1,004,950	2,110,600	1.004	2.109
Galveston	19,237,602	76,587,644	1.004	3.997
Harris	1,451,053	5,258,416	1.004	3.638
Jefferson	6,051,120	10,528,421	1.004	1.747
Kenedy	3,868	5,517	1.004	1.432
Kleberg	259,306	259,709	1.004	1.006
Matagorda	883,672	2,488,133	1.004	2.827
Nueces	10,515,463	29,982,657	1.004	2.863
Refugio	84,802	139,922	1.004	1.657
San Patricio	2,076,754	4,938,329	1.004	2.387
Willacy	97,496	228,623	1.004	2.354
Total	60,241,952	169,294,555	1.004	2.821

Notes:

(2) Provided by TWIA and Geo-coded by AIR

(3) Provided by AIR

(4) = 10% of modeled storm surge increase, estimated to be 4.0%

(5) = (3) / (2) * (4)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Hurricane Loss Ratio -- RMS Model

County	TWIA Insured Values (000s) as of 6/30/10	Modeled Loss Cost	Expected Annual Hurricane Loss
(1)	(2)	(3)	(4)
Aransas	1,631,470	2.792	4,555,064
Brazoria	10,634,876	1.885	20,046,741
Calhoun	695,337	4.065	2,826,545
Cameron	2,485,530	2.183	5,425,912
Chambers	1,232,109	2.293	2,825,226
Galveston	16,478,656	3.475	57,263,330
Harris	674,360	3.301	2,226,062
Jefferson	4,862,940	1.933	9,400,063
Kenedy	2,107	2.489	5,244
Kleberg	211,052	1.531	323,121
Matagorda	692,005	3.192	2,208,880
Nueces	8,808,452	2.318	20,417,992
Refugio	71,750	2.284	163,877
San Patricio	1,686,297	2.116	3,568,204
Willacy	75,858	2.842	215,588
Total	50,242,799	2.617	131,471,849
(5) 2010 Earned Premium at Present Rates			285,022,490
(6) Indicated Hurricane Loss Ratio			46.1%

Notes:

- (2) Provided by TWIA
- (3) Exhibit 8, Sheet 2
- (4) = (2) * (3)
- (5) Exhibit 10, Sheet 2
- (6) = (4) Total / (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
RMS Simulated Hurricane Results

County	TWIA Insured Values (000s) as of 12/31/10	Average Annual Modeled Loss	Provision for Storm Surge	Modeled Loss Cost
(1)	(2)	(3)	(4)	(5)
Aransas	1,831,804	5,023,301	1.018	2.792
Brazoria	12,829,105	23,759,521	1.018	1.885
Calhoun	776,940	3,102,623	1.018	4.065
Cameron	3,161,400	6,778,842	1.018	2.183
Chambers	1,581,012	3,561,148	1.018	2.293
Galveston	19,283,188	65,832,143	1.018	3.475
Harris	887,550	2,878,185	1.018	3.301
Jefferson	6,073,424	11,533,083	1.018	1.933
Kenedy	3,868	9,458	1.018	2.489
Kleberg	259,306	389,866	1.018	1.531
Matagorda	883,812	2,771,524	1.018	3.192
Nueces	10,551,912	24,026,714	1.018	2.318
Refugio	84,117	188,745	1.018	2.284
San Patricio	1,970,290	4,095,235	1.018	2.116
Willacy	97,496	272,141	1.018	2.842
Total	60,275,224	154,222,529	1.018	2.605

Notes:

(2) Provided by TWIA and Geo-coded by RMS

(3) Provided by RMS

(4) = 10% of modeled storm surge increase, estimated to be 18.0%

(5) = (3) / (2) * (4)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Texas Hurricanes 1850 - 2010

<u>Landfall</u>			<u>Landfall</u>		
Year	Month	Name	Year	Month	Name
(1)	(2)		(1)	(2)	
1851	Jun		1929	Jun	
1854	Jun		1932	Aug	"Freeport"
1854	Sep	"Matagorda"	1933	Aug	
1865	Sep	"Sabine River-Lake Calcasieu"	1933	Sep	
1866	Jul		1934	Jul	
1867	Oct	"Galveston"	1936	Jun	
1869	Aug	"Lower Texas Coast"	1940	Aug	
1875	Sep		1941	Sep	
1879	Aug		1942	Aug	
1880	Aug		1942	Aug	
1882	Sep		1943	Jul	
1886	Jun		1945	Aug	
1886	Aug	"Indianola"	1947	Aug	
1886	Sep		1949	Oct	
1886	Oct		1957	Jun	Audrey
1887	Sep		1959	Jul	Debra
1888	Jun		1961	Sep	Carla
1891	Jul		1963	Sep	Cindy
1895	Aug		1967	Sep	Beulah
1897	Sep		1970	Aug	Celia
1900	Sep	"Galveston"	1971	Sep	Fern
1909	Jun		1980	Aug	Allen
1909	Jul	"Velasco"	1983	Aug	Alicia
1909	Aug		1986	Jun	Bonnie
1910	Sep		1989	Aug	Chantal
1912	Oct		1989	Oct	Jerry
1913	Jun		1999	Aug	Bret
1915	Aug	"Galveston"	2003	Jul	Claudette
1916	Aug		2005	Sep	Rita
1919	Sep		2007	Sep	Humberto
1921	Jun		2008	Jul	Dolly
			2008	Sep	Ike

Frequency	Date Period	Hurricanes	Period	Annual Frequency
47-Year	10/1/1963 - 9/30/2010	14	47	0.298
160-Year	10/1/1850 - 9/30/2010	63	160	0.394

Notes:
(1), (2) from NOAA Technical Memorandum NWS TPC-5, updated through 2007

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Calculation of Industry Earned Premium at Present Rate Level
Tier 1 – Territory 8 (Galveston County)

Year	Earned Premium at Current Manual Rates	Factor to TWIA Rate Level	Earned Premium at Current Rate Level
(1)	(2)	(3)	(4)
2001	16,060,195	1.953	31,365,561
2002	17,674,547	1.953	34,518,390
2003	23,469,344	1.953	45,835,629
2004	28,560,478	1.953	55,778,614
2005	32,500,951	1.953	63,474,357
2006	34,841,430	1.953	68,045,313
2007	46,980,324	1.953	91,752,573
2008	59,018,701	1.953	115,263,523
2009	68,997,732	1.953	134,752,571
2010	75,447,753	1.953	147,349,462
2011 / 1			47,343,967
Total	403,551,455		835,479,960

Notes:

- (2) Provided by TDI
- (3) Provided by TDI
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Calculation of Industry Earned Premium at Present Rate Level
 Tier 1 -- Territory 9 (Nueces County)

Year	Earned Premium at Current Manual Rates	Factor to TWIA Rate Level	Earned Premium at Current Rate Level
(1)	(2)	(3)	(4)
2001	8,729,080	1.953	17,047,893
2002	9,385,878	1.953	18,330,620
2003	12,311,598	1.953	24,044,551
2004	14,204,248	1.953	27,740,896
2005	15,284,697	1.953	29,851,013
2006	15,988,222	1.953	31,224,998
2007	23,490,749	1.953	45,877,433
2008	32,210,371	1.953	62,906,855
2009	39,013,380	1.953	76,193,131
2010	43,357,997	1.953	84,678,168
2011 / 1			26,014,520
Total	213,976,220		443,910,078

Notes:

- (2) Provided by TDI
- (3) Provided by TDI
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review

Calculation of Industry Earned Premium at Present Rate Level
 Tier 1 -- Territory 10 (Other Tier 1)

Year	Earned Premium at Current Manual Rates	Factor to TWIA Rate Level	Earned Premium at Current Rate Level
(1)	(2)	(3)	(4)
2001	15,066,641	1.953	29,425,150
2002	16,697,824	1.953	32,610,850
2003	20,504,945	1.953	40,046,158
2004	23,768,004	1.953	46,418,912
2005	26,717,952	1.953	52,180,160
2006	30,919,712	1.953	60,386,198
2007	57,063,931	1.953	111,445,857
2008	88,341,441	1.953	172,530,834
2009	108,011,758	1.953	210,946,963
2010	120,608,615	1.953	235,548,625
2011 / 1			71,155,158
Total	507,700,823		1,062,694,865

Notes:

(2) Provided by TDI

(3) Provided by TDI

(4) = (2) * (3)

**Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review**

Exhibit 10
Sheet 1d

Calculation of Industry Earned Premium at Present Rate Level
Tier 2 – (Territories 1 and 11)

Year	Earned Premium at Current Manual Rates	Factor to TWIA Rate Level	Earned Premium at Current Rate Level
(1)	(2)	(3)	(4)
2001	31,054,162	1.953	60,648,778
2002	32,849,569	1.953	64,155,208
2003	37,585,185	1.953	73,403,866
2004	39,467,805	1.953	77,080,623
2005	41,140,779	1.953	80,347,941
2006	44,928,996	1.953	87,746,329
2007	52,218,195	1.953	101,982,135
2008	52,495,485	1.953	102,523,682
2009	58,600,377	1.953	114,446,536
2010	58,716,509	1.953	114,673,342
2011 / 1			1,411,887
Total	449,057,062		878,420,327

Notes:

- (2) Provided by TDI
- (3) Provided by TDI
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Calculation of TWIA Earned Premium at Present Rate Level

Year	Earned Premium at Current Manual Rates	Factor to TWIA Rate Level	Earned Premium at Current Rate Level
(1)	(2)	(3)	(4)
2001	30,686,943	1.697	52,079,553
2002	39,095,737	1.508	58,938,537
2003	51,234,054	1.502	76,964,770
2004	61,717,015	1.463	90,297,198
2005	72,526,159	1.373	99,603,781
2006	84,917,087	1.370	116,369,388
2007	143,494,160	1.325	190,079,929
2008	211,395,474	1.253	264,859,466
2009	242,220,609	1.150	278,583,422
2010	270,280,478	1.055	285,022,490
Total	1,207,567,716		1,512,798,534

Notes:

- (2) Provided by TWIA
- (3) Based on historical rate changes
- (4) = (2) * (3)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Fixed Expenses and Variable Permissible Loss & LAE Ratios

Expense Category	2007	2008	2009	Selected
(1) Direct Written Premium	\$331,058	\$382,342	\$385,550	
(2) Direct Earned Premium	321,937	357,906	385,566	
(3) Commission				
\$ Amount	52,946	61,149	60,842	
% of DWP	16.0%	16.0%	15.8%	15.9%
(4) Other Acquisition				
\$ Amount	\$0	\$0	\$0	
% of DWP	0.0%	0.0%	0.0%	0.0%
(5) General Expense				
Unadjusted \$ Amount	\$9,330	\$20,842	\$17,905	
Adjustments				
Contribution to Statutory Fund	0	0	0	
Adjusted \$ Amount	9,330	20,842	17,905	
% of DWP	2.8%	5.5%	4.6%	4.3%
(6) Taxes, Licenses & Fees				
\$ Amount	\$6,057	\$7,090	\$7,535	
% of DWP	1.8%	1.9%	2.0%	1.9%
(7) Reinsurance Expense				18.3%
(8) Total Fixed Expenses				22.6%
(9) Total Variable Expenses				17.8%
(10) Fund Contribution				20.0%
(11) Variable Permissible Loss & LAE Ratio				62.2%

Notes:

- (1) - (6) From TWIA's Statutory Annual Statements and Insurance Expense Exhibits
- (7) Exhibit 11, Sheet 2
- (8) = (5) + (7)
- (9) = (3) + (4) + (6)
- (10) Selected judgmentally to incorporate savings from lack of reinsurance purchase
- (11) = 100% - (9) - (10)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Development of Reinsurer Expense
Using Average of AIR and RMS Hurricane Models

Exhibit 11
Sheet 2

(1) 2011 - 2012 Reinsurance Premium	99,970,400
(2a) Average Annual Loss by Reinsurance Layer (AIR) 100% of \$636M XS \$1600M	15,161,636
Total	15,161,636
(2b) Average Annual Loss by Reinsurance Layer (RMS) 100% of \$636M XS \$1600M	16,043,806
Total	16,043,806
(2c) Selected Total Average Annual Loss	15,602,721
(3) Annual Exposure Growth	5.0%
(4) Prospective Average Annual Loss	16,316,647
(5) Net Cost of Reinsurance	83,653,753
(6) TWIA 2010 Earned Premium at Present Rates	405,730,184
(7) 2011 - 2012 TWIA Prospective Earned Premium at Present Rates	458,001,966
(8) Indicated Reinsurance Expense %	18.3%

Notes:

- (1) From TWIA reinsurance contract effective 6/1/2011 through 5/31/2012
- (2a) Provided by Guy Carpenter, based on AIR model using TWIA exposures as of 12/31/2010 and adjusted for ALAE
- (2b) Provided by Guy Carpenter, based on RMS model using TWIA exposures as of 12/31/2010 and adjusted for ALAE
- (2c) Selected equal to the average of the modeled average annual losses
- (3) Selected based on projections communicated to reinsurers
- (4) = Sum of (2a) * [(3) ^ 0.917]
- (5) = (1) - (4)
- (6) = Commercial Exhibit 10, Sheet 1 + Residential Exhibit 10, Sheet 2, calendar year ending 12/31/xx
- (7) = (6) adjusted for premium trend * [(3) ^ 1.417] (projected premium growth from 7/1/2010 to 12/1/2011)
- (8) = (5) / (7)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
Reconciliation of Premium Data to Annual Statement

Exhibit 12

Calendar Year	TWIA Provided Written Premium			Annual Statement Gross	
	Commercial	Residential	Total	Written Premium	Difference
(1)	(2)	(3)	(4)	(5)	(6)
1991	7,329,258	13,133,584	20,462,842	20,503,935	(41,093)
1992	6,107,171	5,357,578	11,464,749	11,495,409	(30,660)
1993	9,185,541	10,130,170	19,315,711	19,376,959	(61,248)
1994	10,672,677	15,758,330	26,431,007	26,510,501	(79,494)
1995	12,865,905	19,259,265	32,125,170	32,419,287	(294,117)
1996	15,640,660	24,504,127	40,144,787	40,358,575	(213,788)
1997	16,536,186	25,783,455	42,319,641	42,462,844	(143,203)
1998	16,558,977	27,833,800	44,392,777	44,410,914	(18,137)
1999	17,394,142	27,168,992	44,563,134	44,581,218	(18,084)
2000	17,332,561	29,762,296	47,094,857	48,012,426	(917,569)
2001	18,271,156	36,190,118	54,461,274	54,630,727	(169,453)
2002	24,012,249	48,851,299	72,863,548	72,967,831	(104,283)
2003	29,220,514	58,572,899	87,793,413	87,987,279	(193,866)
2004	31,009,323	71,292,702	102,302,025	102,384,351	(82,326)
2005	35,740,174	78,094,276	113,834,450	113,927,701	(93,251)
2006	76,847,840	119,658,335	196,506,175	196,833,235	(327,060)
2007	110,951,304	203,561,196	314,512,500	315,139,307	(626,807)
2008	98,037,392	232,921,259	330,958,651	331,057,645	(98,994)
2009	111,269,480	269,536,289	380,805,769	382,342,402	(1,536,633)
2010	102,171,553	278,119,131	380,290,684	385,549,582	(5,258,898)
Total	767,154,063	1,595,489,101	2,362,643,164	2,372,952,128	(10,308,964)

Notes:

- (2), (3) Provided by TWIA, as of 12/31/2010
- (4) = (2) + (3)
- (5) Based on TWIA Annual Statements
- (6) = (4) - (5)

Texas Windstorm Insurance Association
Residential Property - Wind & Hail
Rate Level Review
 Analysis of Current and Proposed Net Premium Income

Exhibit 13

Premiums and Rate Components	<u>TWIA Indications at Current Rates</u>			<u>TWIA Indications at Proposed Rates</u>		
	Commercial	Residential	Total	Commercial	Residential	Total
(1) 2012 Written Premium	87,000,000	333,000,000	420,000,000	91,350,000	349,650,000	441,000,000
(2) 2012 Eamed Premium	90,000,000	320,000,000	410,000,000	92,250,000	328,000,000	420,250,000
(3) Non-Hurricane Loss & LAE Ratio	8.1%	9.7%	9.3%	7.9%	9.5%	9.1%
(4) General Expenses	4.3%	4.3%	4.3%	4.1%	4.1%	4.1%
(5) Reinsurance	23.8%	23.8%	23.8%	22.7%	22.7%	22.7%
(6) Commission	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%
(7) Taxes, Licenses, & Fees	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
(8) Total Non-Catastrophe Expenses	47,225,154	183,895,246	231,120,400	47,999,454	186,858,946	234,858,400
(9) Net Premium Income			178,879,600			185,391,600

Estimated Costs for \$1 Billion Class 1 Bonds

(10) Net Required Premium	195,000,000 - 242,000,000
(11) Net Debt Service	130,000,000 - 162,000,000

Notes:

- (1) projected
- (2) projected
- (3) Exhibit 2, Sheet 1
- (4) Exhibit 11, Sheet 1 (5)
- (5) Exhibit 11, Sheet 1 (7)
- (6) Exhibit 11, Sheet 1 (3)
- (7) Exhibit 11, Sheet 1 (6)
- (8) = (1) * [(4) + (6) + (7)] + (2) * (3)
- (9) = (2) - (8)
- (10) from financial analysts, assuming Class 1 bond proceeds are taxable; adjusted to 14 year term
- (11) from financial analysts, assuming Class 1 bond proceeds are taxable; adjusted to 14 year term