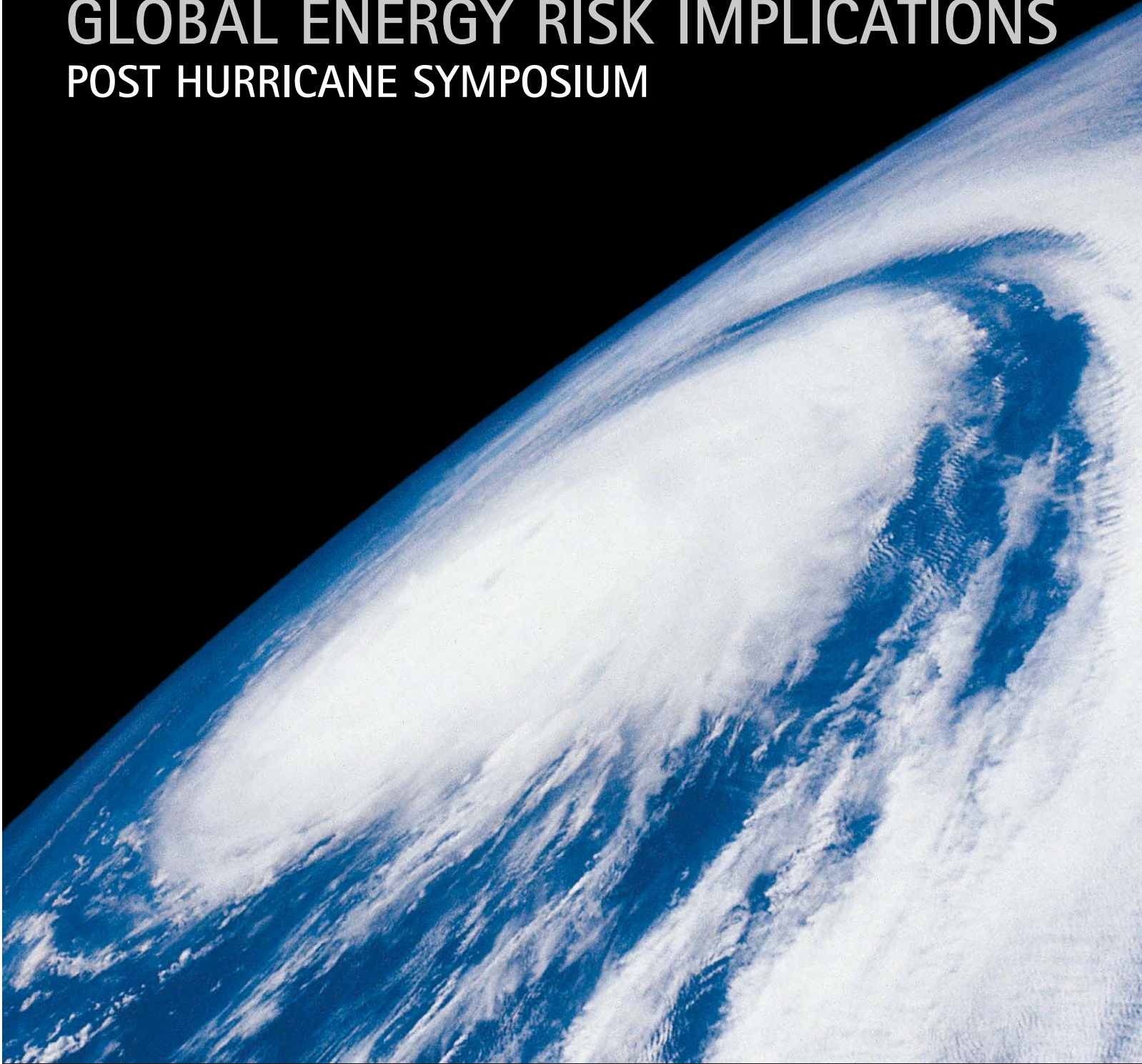


# GLOBAL ENERGY RISK IMPLICATIONS

## POST HURRICANE SYMPOSIUM



➤ MARINE



➤ ENERGY



➤ POWER



➤ AEROSPACE



➤ AVIATION



➤ PROPERTY



➤ CASUALTY

# ➤ ENERGY INSURANCE IN THE GULF OF MEXICO IN YOU



## UNDERSTANDING YOUR RISKS, CREATING YOUR SOLUTIONS

John Lapsley  
Benfield Corporate Risk Chief Executive

Dear Energy Industry Executives:

Last year saw a devastating and record breaking series of Atlantic Hurricanes, with three of the most powerful storms ever recorded entering the Gulf of Mexico. Two of those storms, Katrina and Rita, passed through the offshore oil and gas producing sector of the Gulf causing an unprecedented amount of destruction and damage to fixed and mobile structures together with triggering significant disruption to refineries, power supplies and oil & gas distribution throughout the Gulf coast region.

The global insurance market is still taking stock of these events and counting the cost. Our role is to try and make sense of how these markets are reacting, and to offer guidance on handling your risk management and insurance strategies going forward. Here, with our compliments, is an executive summary of a Hurricane Symposium presented by one of the world's foremost experts on tropical storms in the Gulf of Mexico, followed by a panel discussion among energy industry insurance experts.

The symposium, as well as the findings of its distinguished panel, are typical of the type of valuable, actionable information you can expect from Benfield Corporate Risk.

To better align the interests of insurers and insureds requires a much higher level of analysis than that offered by most commodity brokers. Benfield Corporate Risk offers a unique opportunity. Conceived as a high-value-added specialty broking business, Benfield Corporate Risk provides energy industry clients the high-level analysis, technology, creativity they need and the insurance markets respect.

For energy industry clients operating in a highly distressed risk transfer environment, Benfield Corporate Risk offers a decided advantage.

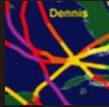


2006.

# HAVE ISSUES, WE HAVE SOLUTIONS.



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### Gulf Hurricane Activity: What Does the Future Hold?

Prof. Mark A. Saunders, one of the world's foremost experts on hurricanes, reviews the 2004/5 hurricane seasons, forecasts activity for 2006 and beyond. Executive summary and transcript of presentation.

➤ Page 5



### Lessons Learned: Panel Recommendations Going Forward

Using recent experience and Prof. Mark A. Saunder's forecast for 2006 as a starting point, panel experts offer energy industry clients insights and recommendations on their insurance purchasing over the coming years as the market corrects itself.

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### Risk Transfer in the Gulf After the Hurricanes of 2004/2005

Energy industry risk transfer experts review damage to on/offshore facilities, state of repairs and long-term market implications. Panel includes underwriter, claims adjuster and broker expertise.

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## DEDICATED TO ENERGY

**Bill Martin**  
Head of Benfield Corporate Risk Houston Office

Dear Energy Professionals:

Though we have offices in London, New York, Singapore, Bermuda offering services across the marine, energy, property/casualty and aviation sectors, Benfield Corporate Risk's Houston office is dedicated entirely to energy industry clients.

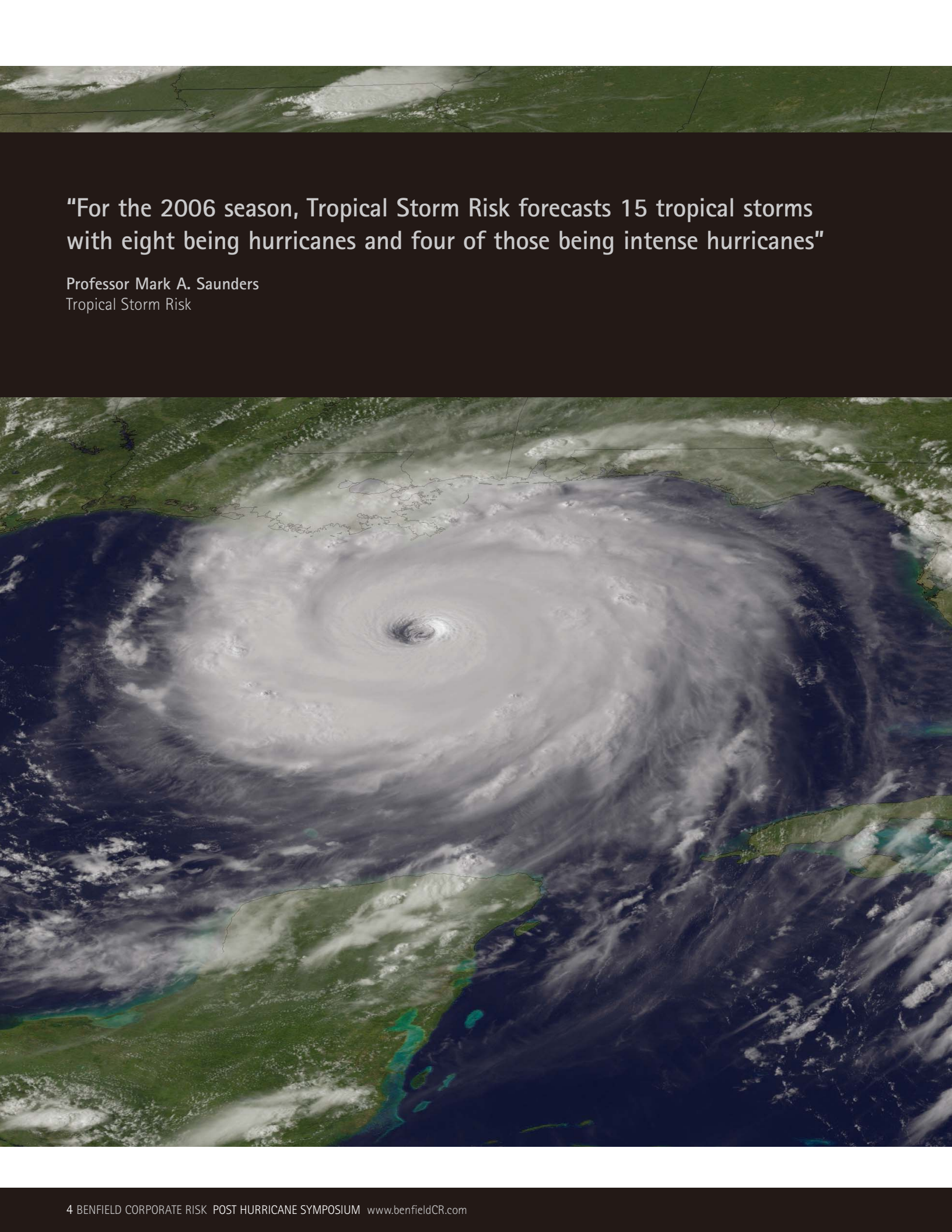
Our staff includes a wide range of energy industry experts including engineers, mathematicians and financial analysts - many with real hands-on energy industry experience. They have the real-world experience that enables them to create the solutions that best fit your company's needs.

For all classes of energy and energy related business, we offer unrivalled claims handling and specialist services including ReMetrics, Benfield's award-winning dynamic financial analysis tool and Risk Engineering. Our team's capabilities are further enhanced by a close working relationship with our colleagues at Benfield's highly regarded reinsurance arm.

This combined strength enables Benfield Corporate Risk to work in partnership with customers to develop customized solutions tailored to their business strategies and the unpredictable risks they face.

In this distressed insurance market, information will be key. That's why we invited Professor Mark A. Saunders to address the energy industry in Houston. We believe his presentation has done much to separate fact from fiction.

We look forward to sponsoring similar events in the future and hope you will join us.

A satellite image of a tropical storm over the Gulf of Mexico. The storm is a large, circular cloud system with a distinct eye in the center. The surrounding clouds are dense and spiral outwards. The landmasses of North America and the Caribbean are visible in the background, with green vegetation and blue oceans. The storm is positioned in the central part of the Gulf, roughly between the Florida peninsula and the Yucatan Peninsula.

**"For the 2006 season, Tropical Storm Risk forecasts 15 tropical storms with eight being hurricanes and four of those being intense hurricanes"**

Professor Mark A. Saunders  
Tropical Storm Risk

# GULF HURRICANE ACTIVITY: WHAT DOES THE FUTURE HOLD?

- While we are in a period of heightened hurricane activity, the incidence of seven US landfalling intense hurricanes in just two years is extremely unusual.
- The probability of four or more intense hurricane landfalls affecting the Gulf offshore sector over a two-year period is only 1 in 200. Therefore, a knee-jerk reaction to the losses of 2004/5 should be avoided.
- There is a 79 percent probability of an above-normal Atlantic hurricane season in 2006.
- There is a 82 percent probability of above-normal US landfalling hurricane activity in 2006.
- For the 2006 season, Tropical Storm Risk forecasts 15 tropical storms with eight being hurricanes and four of those being intense hurricanes.
- Tropical Storm Risk predicts that in 2006 there will be five tropical storm strikes on the US of which two will be hurricanes.
- Current enhanced hurricane activity will continue to at least 2010.



## Major Gulf Hurricanes in 2004/5



Figure A



**Professor Mark A. Saunders**  
Lead Scientist, Tropical Storm Risk, Benfield Hazard Research Centre, University College London, UK

Hurricanes have been responsible for several defining moments in the development of the offshore energy industry and the energy insurance market. Most here would agree that the hurricanes of 2004 and 2005 (Fig. A) will lead to market-changing events in these industries. I think these changes will appear through more sophistication in how insurance risk is assessed and in better customization of risk mitigation.

2004 and '05 were exceptionally active. Having five intense hurricanes occur in the Gulf in a given year is truly exceptional. Of these, hurricanes Katrina, Rita and Dennis caused substantial disruption to the offshore energy industry. The other two, Emily which eventually hit Mexico, and Wilma, also caused downtime in Gulf oil and gas production.

The Gulf is not just important for the energy insurance sector. It really affects the whole US economy and arguably has impacts worldwide. Following Katrina and Rita, for example, there were jumps in the price of petrol in the UK. Natural gas from the Gulf now accounts for over a quarter of US energy consumption.

Of the events of 2005, the two hurricanes which will be the most market-changing of all are Katrina and Rita. The losses just to the offshore sector from these two hurricanes are estimated conservatively at over \$5 billion. Together they caused more damage than all the other hurricanes since the first well was built in the Gulf of Mexico in 1938.

However, it's not just Katrina and Rita which have made the last two years exceptional for activity. In 2004 and '05, seven intense -- that's Category 3 and above -- hurricanes struck the US. The long-term norm is just one intense hurricane every two years. Never before have there been as many as seven in a two-year period.

In 2004 and '05 there have been 10 hurricane landfalls in the US as opposed to the norm of just three every two years.

The total insured damage bill is estimated for the two years to be in the order of \$100 billion. This compares to a long-term norm of \$6 billion for two years.

Let's start with an overview of the latest damage from Katrina, Rita and Ivan. These figures (Fig. B) are taken from a recent report produced by Benfield Corporate Risk. The chart shows the damage to Gulf of Mexico platforms and rigs. It's interesting to note that when Ivan happened it was cast as a record-breaking event to the offshore industry. But the totals for Katrina and Rita are clearly a lot higher. Indeed, Rita's totals are comparable to some of those from both Ivan and Katrina together. Katrina and Rita together destroyed 113 platforms and eight rigs.

But it's just not platforms being destroyed which affects the



## Ivan/Katrina/Rita Damage

Damage to Gulf of Mexico Platforms and Rigs			
	Ivan	Katrina	Rita
<b>Platforms destroyed</b>	7	47	66
<b>Platforms extensively damaged</b>	20	20	32
<b>Rigs destroyed</b>	1	4	4
<b>Rigs extensively damaged</b>	4	9	10
<b>Rigs adrift</b>	5	6	13

*(Data courtesy of Benfield Corporate Risk: A 65 year history of hurricanes and some of their resultant impacts on the offshore industry (1 November 2005) and the Minerals Management Service).*

Figure B

recovery of production, it's also the shut-in oil and gas in damaged pipelines. These (Fig. C) are the latest values from the Minerals Management Services for the percentage of the total yearly production of oil and gas lost from first Ivan, and then Katrina and Rita together. You can see that with Katrina and Rita we're looking at 15% for oil and nearly 12% for gas of yearly production lost from these storms.



## Lost Oil and Gas Production

Cumulative Shut-In Production		
	Ivan	Katrina and Rita*
<b>Oil (% of yearly production)</b>	7.2%	15.1%
<b>Gas (% of yearly production)</b>	3.9%	11.7%

\* As of November 10, 2005.

*(Data courtesy of the Minerals Management Service).*

**Shut-in production does not include production lost from destroyed platforms.**

Figure C

So, how unusual then, in historical terms, were 2004 and '05 for Gulf hurricanes? Well, this plot (Fig. D) shows the probability of occurrence for the number of intense, major Gulf landfalls happening in a two-year period. The observation data going into this goes back to 1900. The chart also shows a model fit, which is the red line, based on a Poisson model. The model does an impressive job of fitting the data.

You can see that there are just two instances in data back to 1900 of four Gulf intense hurricane landfalls in a two-



## Number of Major Hurricane Gulf Landfalls in 2 Years

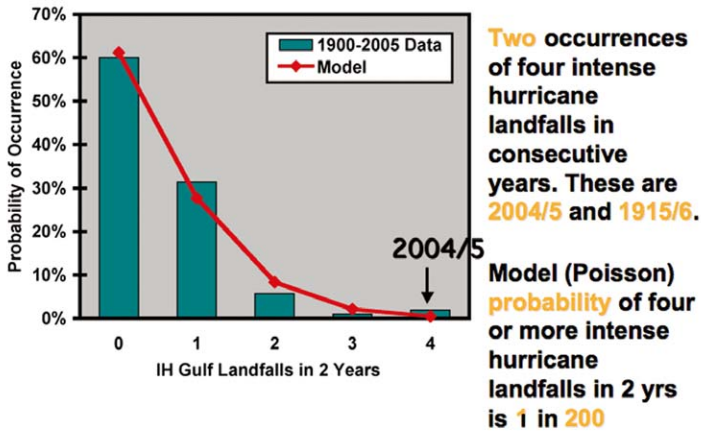


Figure D

year period. The other instance was in 1915/16. The model shows the chance of getting four major Gulf landfalls in two years is a one in 200-year occurrence. So we are dealing with an unusually active two-year period for Gulf intensive hurricane landfalls. Normally, the mean would be less than one intense hurricane landfall every two years. In fact, you can see that 90% of two-year periods historically have zero or one intense hurricane landfall.

It's not just intense hurricane landfalls that were extremely unusual for the last two years, it's also the activity in the Gulf itself. This chart (Fig. E) shows the probability of



## Number of Gulf Major Hurricanes in 1 Year

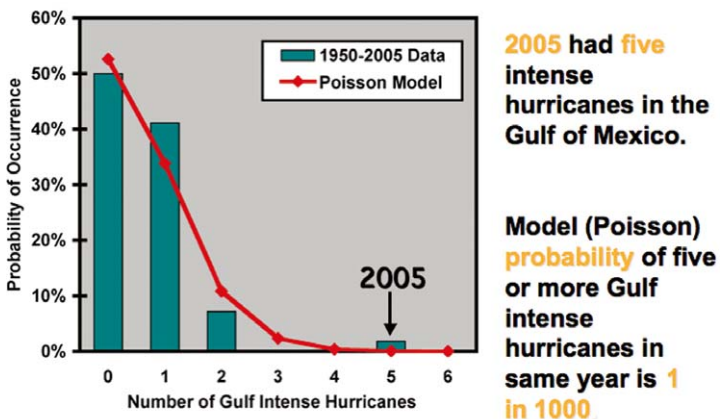


Figure E

occurrence against a number of Gulf intense hurricanes. In 2005 we had five major hurricanes in the Gulf. Historically - this is now back to 1950 only -- you can see 90% of years

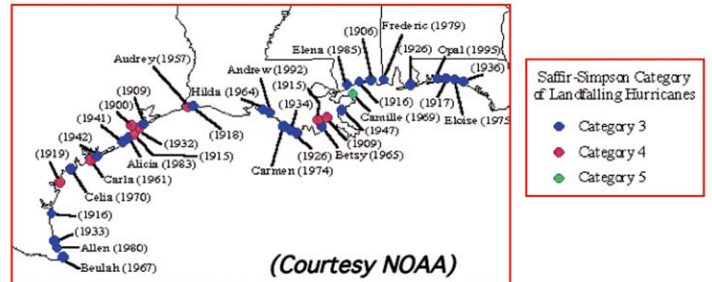
have either zero or one major hurricane in the Gulf and there's been no other example since 1950 of there being more than two major hurricanes in the Gulf in any one year. So, 2005 is truly an exception.

If you do a model fit based on a Poisson model, which I think works very well, the chance of getting five major hurricanes in any one year comes out as a one in 1,000-year event. So it is extremely unusual to get that many major hurricanes in any one year. Based on that, I would urge the insurance industry not to overreact too much based on this one year, as it is very unlikely to happen again for some considerable time.

Now, we know that there have been lots of major hurricane landfalls in the Gulf going back to 1900, and these are well documented. This is a map (Fig. F) produced by NOAA showing where Category 3, 4 and 5 made landfall between Pensacola and Brownsville. A quick review shows that since 1900 there have been 12 hurricane landfalls having an intensity higher than Ivan did in 2004. From that you can deduce that an Ivan-type event can be expected about once a decade.



## Major Gulf Hurricane Strikes 1899-1996



**Since 1900 12 hurricanes with an intensity higher than Ivan have made landfall between Pensacola (Florida) and Brownsville (Texas).**

Figure F

The map also shows the strongest event ever to make landfall. The green dot is Camille (1969) which struck close to where Katrina made landfall this year. Camille's one-minute sustained winds at landfall were 190 mph. That's about 25 to 30% higher than Katrina was at landfall. Camille had a storm surge approaching 25 feet, which affected in particular Biloxi, which also suffered from Katrina. So it shows that events stronger than Katrina will certainly happen again in the future.

So, in summary, how unusual were 2004/05? I'll emphasize that the chance of getting four intense hurricane landfalls affecting the Gulf offshore energy industry in two years is just a one in 200-year occurrence. So, based on that, a knee-jerk reaction to the high losses particularly of this

year should be avoided if possible. Hurricanes of Ivan's strength will occur at least once a decade, based on historical records. And hurricanes of Katrina's strength or stronger will certainly happen again.

So let's move on then to the forecasts. We'll start with the Tropical Storm Risk (TSR) outlook for the 2006 hurricane season. We anticipate another active hurricane year in 2006 to high likelihood. Hurricane activity is forecast to be 60% above the 1950-2005 long-term norm. The 60% above average value holds both for activity at sea and for US landfalling hurricane activity.

Breaking this down a little, the forecast calls for 2006 being an above-average Atlantic hurricane season (that is in the top one-third of years historically) to 79% probability; a 15% chance of a near-normal season, and just a 6% chance of being below-normal (that is, in the bottom one-third of years historically). In terms of numbers of events, we're looking at 15 tropical storms in the Atlantic basin as a whole, of which eight will be hurricanes and four intense hurricanes.

The US landfalling forecast sees activity at an 82% chance of being in the top one-third of years historically; 14% near normal and 4% below normal. We expect five tropical storm strikes on the US of which two will be hurricanes. It's not possible for our analysis to actually break that down by East Coast and Gulf Coast, so these are for the US as a whole.

The forecast is based on two main climate factors, one being how warm or cold the waters are where hurricanes form in August and September. We anticipate the waters there will be about 0.3°C warmer than normal, which is actually significantly warmer. This added warmth provides heat and moisture to power incipient storms.

The second factor concerns the atmospheric circulation, in particular the speed of the trade winds that blow from West Africa towards the Caribbean. These winds influence cyclonic vorticity (the spinning up of storms) along the main hurricane track region. For next year, we anticipate weaker-than-normal trade winds which cause more vorticity in the air and thus more storms to be spun up. So both the climate factors appear to be enhancing for next year.

Now, you might think, that's fine, but how useful is this to us? That is addressed by this plot (Fig. G) which compares the hindcast of this model, i.e., what the TSR model would have predicted in prior years at this time, i.e., November, with the actual US hurricane total insured loss in the following year. The comparison is made for the last 20 years, 1986 through 2005. We indicate whether the hindcast and/or loss is above median or below median by whether it's red or blue. Red is above median, blue is below median.

You can see that the TSR hindcast issued in early November gets the US hurricane insured loss signed right in 70% of the



## Hindcast Link to Loss 1986-2005

Year	Nov. Hindcast	Hindcast	Loss	Insured Loss
2005	3.57	+	+	75,000,000,000
1992	2.11	-	+	29,016,728,835
2004	3.44	+	+	23,500,000,000
1989	2.12	-	+	6,710,833,935
1995	1.69	-	+	3,636,900,090
2001	2.71	+	+	2,615,000,000
1996	2.69	+	+	2,464,532,190
1999	4.38	+	+	2,382,634,470
1998	3.36	+	+	2,003,554,155
2003	2.86	+	+	1,775,000,000
1991	2.66	+	-	1,094,842,830
2002	3.06	+	-	635,000,000
1986	1.87	-	-	81,980,670
1993	2.47	-	-	56,049,315
1997	2.25	-	-	48,913,245
1988	2.56	-	-	22,592,025
1987	1.87	-	-	594,870
1990	2.65	+	-	0
2000	2.6	-	-	0
1994	2.4	-	-	0

Comparison of TSR hindcast US ACE Index from 1st November and U.S. hurricane insured loss.

The hindcasts predict correctly whether the loss is above or below median in 70% of years.

Figure G

last 20 years. There are 14 correct sign years and six incorrect. The incorrect ones are Andrew and also 1995, the other one was 1989. So it doesn't work every year, but clearly it works in more years than it doesn't. You would be better off over a period of years having used the forecast as one of the factors in your risk assessment than not having done so.

Notice in particular the last two years. In 2004 and '05 the forecasts worked very well. This chart (Fig. H) shows the



## Seasonal Forecasts for 2004

Probabilistic Seasonal Forecasts: US ACE Index 2004					
		Tercile Probabilities			RPSS
		Below normal	Normal	Above normal	
Actual 2004		0	0	100	1
Climatology 1950-2003		33.3	33.3	33.3	0
TSR Forecasts	4 Aug 2004	5	25	70	0.77
	5 Jul 2004	8	34	57	0.54
	4 Jun 2004	11	40	49	0.35
	11 May 2004	6	31	63	0.65
	6 Apr 2004	6	27	67	0.72
	5 Mar 2004	6	30	64	0.67
	5 Feb 2004	3	22	75	0.83
	6 Jan 2004	6	26	68	0.74
5 Dec 2003		6	26	68	0.74

RPSS = Rank Probability Skill Score

Figure H

verification of the TSR forecasts for US landfalling hurricane activity in 2004. The longest range forecast was issued in December 2003, and the last one issued was made in early August '04 just before the start of the main hurricane



season. As you can see, at all lead times the forecast was going for an above-normal US landfall hurricane year. Historically, there's a 33% chance of each of these categories, but the forecast was going up to 70% chance of the above-normal year. And of course, 2004 was when four hurricanes hit Florida.

The Table (Fig. I) verifying the TSR US landfalling forecasts for the 2005 hurricane season show that the forecasts again called consistently for above-average activity to high probability. Indeed, the last forecast issued in early August predicted US hurricane activity would be in the top one-third of years historically to 85% probability. Incidentally, these forecasts are now being included within Benfield's ReMetrica dynamic financial analysis system. So you can, if you so wish, use these forecasts to adjust the depth and breadth of your reinsurance cover. This methodology was announced recently and will be available for the 2006 hurricane season.

Let's move on to the forecast for the next five years. Whatever measure you're looking at Atlantic basin and US landfalling hurricane activity is running between 40 and 70% above norm for the last 10 to 11 years.

Let's look at the different enhancing and suppressing factors that could come into play over the next five years. Currently we are in the warm phase of the Atlantic Multidecadal



## Seasonal Forecasts for 2005

		Tercile Probabilities		
		Below normal	Normal	Above normal
Actual 2005		0	0	100
Climatology 1950-2005		33.3	33.3	33.3
TSR Forecasts	5 Aug 2005	0	15	85
	7 Jul 2005	4	14	82
	7 Jun 2005	9	21	70
	5 May 2005	8	21	71
	5 Apr 2005	9	21	70
	7 Mar 2005	9	20	71
	9 Feb 2005	11	22	67
	5 Jan 2005	10	20	70
	10 Dec 2004	13	22	65

Figure I

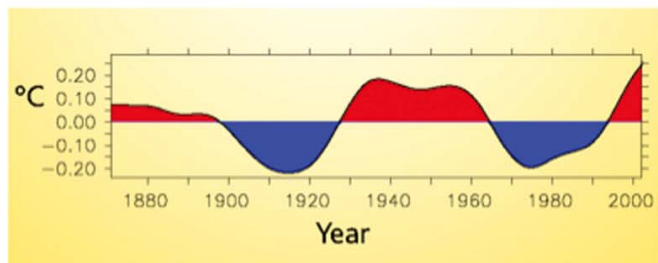
Oscillation (Fig. J), and since we've been in this now for 11 years and warm phases historically have lasted 30 years, I think it's reasonable to expect this to last for another 10 or 20 years, certainly through the next five years. And secondly,



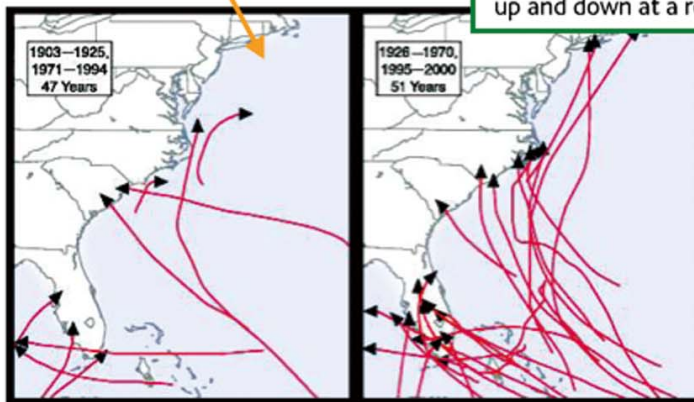
## Atlantic Multidecadal Oscillation

AMO time series

AMO link to U.S. hurricane landfalls



**Wobbly ocean.** North Atlantic temperatures have wavered up and down at a roughly 60- to 80-year pace.



**Bad warmth.** The AMO's warm years favor more U.S. hurricanes (right).

**Goldenberg et al.,  
Science, 2001.**

**Sutton and Hodson,  
Science, 2005.**

Figure J

I believe global warming is and will continue to also be an enhancing factor.

However, there are also hurricane suppressing factors which could be relevant over a five-year timeframe. The first is El Nino - warming of the tropical East Pacific which occurs about once every five years. The last two El Ninos occurred in 2002 and 1997. So it's reasonable to expect one of the next five years to have an El Nino event which would cause a below-average Atlantic hurricane year.

A second suppressing factor is a phenomenon called the North Atlantic Oscillation (NAO) which is linked to wind patterns and sea temperatures in the North Atlantic. A positive NAO is associated with cooler sea temperatures where hurricanes form while a negative NAO is linked to warmer ocean temperatures. Currently the NAO is trending negative and that's expected to carry on for some years. So it's unlikely that a positive NAO would kick in over the next five years.

Based on these enhancing and suppressing factors I think it's reasonable to say that the balance of probability suggests that the current enhanced levels of hurricane activity (~40-70% above norm) will continue through 2010.

I was recently involved in a hurricane expert elicitation session organized by Risk Management Solutions (the catastrophe modeling company) with a view to re-assessing the hurricane base rates in their Cat model in the light of the recent enhanced activity. While I can not give the panel recommendation I can provide the figures which I contributed.

For Atlantic basin intense hurricane activity I believe the next five years (2006-2010) will see activity above the 1950-2005 mean rate (2.3 events per year) to 90% probability, and above the 1995-2005 mean rate (3.9 events per year) to 60% probability. For US landfalling intense hurricane activity I believe the period 2006-2010 will see activity above the 1950-2005 mean rate (0.6 event per year) to 80% probability, and above the 1995-2005 mean rate (0.9 event per year) to 55% probability.

Therefore, I would recommend changing the long-term climatological base rates currently used in peril models to reflect the fact that we are in a period of elevated hurricane activity. I also think it's wise to review base levels every couple of years.

In conclusion, the main points to take away from my presentation are, firstly, to understand just how unusual 2005 and 2004 have been for Gulf hurricane activity. The chance of getting four intense hurricanes affecting the Gulf offshore sector in two years is just 1 in 200. Again, I would urge the energy insurance market to avoid a knee-jerk reaction to the high losses of the last two years.

Secondly, I would emphasize that we are in an active

phase of Atlantic hurricane activity, with numbers of intense hurricanes 70% above the long-term norm. This elevated activity is expected to continue in 2006. Tropical Storm Risk predicts that Atlantic basin and US landfalling hurricane activity will be 60% above the 1950-2005 norm in 2006. I feel the reasons for this high recent activity are a combination of the warm Atlantic multidecadal phase and global warming.

The balance of probabilities suggests that the current elevated activity will persist through at least 2010, perhaps even at levels above those witnessed during the past decade.

That concludes my summary of what the future may hold for Gulf and Atlantic hurricane activity. Thank you very much.

"The balance of probabilities suggests that the current elevated activity will persist through at least 2010, perhaps even at levels above those witnessed during the past decade"

Professor Mark A. Saunders  
Tropical Storm Risk





# PANEL DISCUSSION: GLOBAL ENERGY RISK IMPLICATIONS OF THE GULF HURRICANES

MODERATOR, BILL MARTIN

- To add energy industry context to Professor Mark A. Saunders' Hurricane Symposium, Benfield Corporate Risk assembled a panel of energy risk experts.
- Moderated by Bill Martin, head of Benfield Corporate Risk's Houston office, the panel included Frank Costa, President of AIG Oil Rig, William Rothhammer, President and CEO of Bateman & Chapman, Bert Durel and Jason Wheeler, both of Benfield Corporate Risk.
- Looking retrospectively, the panel agreed that insured losses to on/offshore energy industry infrastructure in the Gulf due to hurricanes in the 2004 and 2005 season was approximately \$9.4 billion. Wave action was the principal source of damage, while sea-floor instability was the secondary source. Wind was a distant third.
- Looking forward, the executives agreed that the energy industry should expect property rate increases in excess of 400% as underwriters attempt to replenish the global premium pot. On a global basis, premium increases will range from 25% to 35%.
- New capital entering the markets will have little immediate impact on capacity. However, non-traditional markets such as hedge funds are offering attractive alternatives.
- Going forward, the panel agreed that insurers will differentiate Gulf energy risks by quality. Therefore, energy companies must present accurate and detailed information.
- Other key findings are highlighted as bullet points throughout the text.

# SYMPOSIUM PANEL



**Bill Martin**

Bill Martin is part of the management team responsible for developing Benfield Corporate Risk's capabilities in the corporate risk insurance broking sector. Bill heads up the Houston office and focuses on the marine, energy and power sectors. Prior to joining Benfield Corporate Risk Bill worked for Marsh and Tenneco in various senior roles.

Bill is a graduate of the Virginia Military Institute and is a Beta Gamma Sigma graduate of the College of William and Mary Graduate School of Business with an MBA in Finance.



**Frank Costa**

Frank Costa has been involved in Offshore Energy insurance for 21 years. He is the President of AIG Oil Rig, a division of AIG Global Energy. AIG Oil Rig is a leading underwriter of offshore oil and gas property based in New York with offices in London, Houston and New York.

Mr. Costa is Chairman of the American Institute of Marine Underwriters Offshore and Energy Committee. He holds a B.A. in Economics from New York University.



**William Rothhammer**

William Rothhammer, President/CEO of Bateman Chapman has experience as a roughneck, motorman, derrick hand and driller. He started his energy and non-marine adjusting career in 1981. Today he is regarded as one of the energy industry's most respected adjusters.

Bill holds an All Lines Adjuster license and is a graduate of Wichita State University with a Bachelor of Science, Business Administration.



**Bert Durel**

Bert Durel has over 34 years of energy and marine experience both as underwriter and broker. Bert currently provides expertise in program design/development, marketing and account service for the Marine, Energy and Power sectors in Benfield Corporate Risk.

Bert has been a participant on numerous industry advisory councils and been guest lecturer at industry seminars, including the International RIMS Conferences. Bert also has a Bachelor's degree in Pre-Law.



**Jason Wheeler**

Jason Wheeler, based in the London office of Benfield Corporate Risk, is involved in the design and placement of complex energy insurance risks. Jason began his career as an underwriter in the London market in 1986, principally specialising in underwriting upstream energy business.

Prior to joining Benfield Corporate Risk, Jason worked within Marsh in London then relocated to Paris to run their wholesale and retail energy operations. Jason also worked in Lagos, Nigeria, where he was responsible for Marsh's energy operations in Sub-Saharan Africa.

"Professor Saunders called the hurricane activity in the Gulf a market-changing event. That's exactly what it was. It's no longer the old playing field"

**Frank Costa**  
President, AIG Oil Rig

**BILL MARTIN:**

We have a distinguished panel today. In the insurance industry, we like to talk about aggregates. There is between 108 and 110 years of aggregate experience to my left here, not counting me, in the energy risk arena.

We're fortunate to have Frank Costa, President of AIG Oil Rig, who I think many of you here know. He's also Chairman of the American Institute and Marine Underwriters Offshore and Energy Committee. Thanks for coming down, Frank.

We have Bert Durel, a recent addition to the Benfield team in Houston. Bert is going to sound like 70 of those 110 years because he's losing his voice. So, you'll have to bear with him on that. Bert has been a great addition to our team. I think everybody in Houston will tell you that. With years of experience in the business, Bert's a leader in the industry and a great addition to our team.

Bill Rothhammer has also joined us. As President and CEO of Bateman & Chapman, he's at the sharp end of the sword right now, out actually adjusting the complex losses that we see. One of the things I've found interesting is that in putting together their organizations, Rush Johnson and Bateman & Chapman, did it with a single global P&L, which is something that we've done at Benfield Corporate Risk. Immediately he gets the benefits and his clients get the benefits, because he's moved resources from all over the world to help adjust these hurricane losses in the Gulf of Mexico. I think that's the kind of nimble reaction time that type of organizational structure brings. Very far-sighted, Bill. I know it's responding well for your clients.

Jason Wheeler started in this business as an underwriter on the E&P side of the business. Jason spent time as a broker with Marsh and has lots of experience in West Africa. He is now a member of the Benfield team operating out of London.

- Chaired by Bill Martin, Benfield Corporate Risk
- Over 110 years of insurance and industry experience on the panel
- Representatives from underwriting, loss adjusting and broking.

So that's our distinguished panel. Lots of experience. We want to keep this active. We'll take questions. I've got some questions I've prepared to get things kicked off, but feel free to raise your hand. We'd like for this to be relaxed and comfortable so you can take as much away as possible to aid in what we think will be a very dynamic market situation over the next few months. That being said, let's kick off with you, Frank, by talking a little bit about what kind of premiums were paid for risks in the Gulf of Mexico offshore and what we've seen in the way of losses.

**FRANK COSTA:** We estimate the annual premium for offshore Gulf of Mexico to be approximately \$450 million, that's annual offshore only. And in the last two years Hurricane Ivan insured loss, was \$1.4 billion, that was in 2004; Hurricane Katrina we estimate to be between \$3 billion and \$4 billion in insured loss. This is commercial market loss after retentions, after captives and OIL. We believe Rita to be in that same neighborhood, \$3 billion or \$4 billion. So, over two years we've had roughly \$9.4 billion of commercial market loss due to hurricane activity.

- Annual Gulf of Mexico Offshore premium approx \$450mm
- Losses from Ivan, Katrina and Rita nearing \$10bn

**BILL MARTIN:** And that's with \$450 million per year in premium.

**FRANK COSTA:** That's right.

**BILL MARTIN:** Frank, would you anticipate any significant degradation of those numbers coming up as a result of contingent business interruption claims?

**FRANK COSTA:** I think the numbers won't go lower. The natural progression has been that the number increases. You have a number of factors out there - increased cost of labor, increased cost of steel, scarcity of drilling rigs. So the number will go up; it won't go down.

**BILL MARTIN:** Let me go to Bill Rothhammer. Since you're out there, you're seeing the losses. Please paint a verbal picture for us: The type and the main cause of the loss - whether it's wind damage, wave, collision. I think we'd like to hear from somebody who's actually been there and seen what's been going on.

**BILL ROTHHAMMER:** What we're seeing is a real mess, both offshore and onshore. The primary cause of damage to both offshore and onshore property is wave action or water damage. We've seen wave heights in the plus 65-foot levels, which tend to take fixed leg structures and put a tension force upon the bottom decks, lifting them up, snapping the legs or bending them as the waves roll through. The catastrophic damage is principally to fixed-leg structures.

The waves do not really seem to affect most of the deep water projects, the TLP's have in general fared very well from wave action as they are flexible and some of these can move within a 500-meter radius.

A second point of damage which is most expensive would be sea floor instability, mud slides. The cost there is primarily more of a business interruption or a contingent business interruption. We see the costs higher to that side of the claim than we do on the physical damage side. And that's primarily in the Mississippi Delta region.



Mars Platform before and after Katrina.

Wind damage is probably the least of the damages that we see. Typical heli-deck damage, nav aids, communications equipment, solar, the equipment that's up on the tallest parts of these rigs and platforms. On some of the shallow water projects we're seeing some operators building little derricks or stands on the smaller structures to try to get their nav aids and communication equipment above the waves.

As far as onshore, typical wind damage is flying debris, blowing the sides and insulation off the towers in the process plants and refineries. And we're seeing them imploding on themselves, as well as being blown over with the wind.

Regarding collision, I guess that question primarily references the mobile offshore drilling units, some of which took a walkabout in the Gulf of Mexico. Those are under investigation and I really can't speak to the level of damage caused by any of these rigs breaking free. But I can say that the MMS is seriously looking at the mooring systems of these rigs for future possible changes. Is that it for your question?

- Wave heights in excess of 65 feet
- Wave (offshore) and water (onshore) main causes of damage
- Rig mooring systems being investigated by the MMS

**BILL MARTIN:** That's great. There is one other point. You mentioned that deep water structures fared much better. Was there any pattern between newer and older, different types of engineered platforms out there? Any trends there?

**BILL ROTHHAMMER:** Well, fixed-leg platforms, obviously the eight-leg platform, will fare much better than a four-leg platform in 220-foot water just due to size. We are seeing a lot of four-leg platforms and small caisson structures which sustained serious damage.

**BILL MARTIN:** The \$64,000 question I'll flip to you, Frank. In light of what's happened, what steps do you think underwriters are going to take in their reaction to losses?

**FRANK COSTA:** Well, the extent of the loss caused by these storms proves to us that Gulf of Mexico property is significantly more exposed than we had previously thought -- especially with respect to the older platforms, the shelf properties as they're called, in State waters. These are primarily platforms in shallow water, built to a lower storm criterion.

Any hurricane Category 3 or higher is very devastating to this property. And at most of these facilities, neither insurers nor reinsurers anticipated this type of a loss, nor did they have in their business plan any scenario set to this magnitude of loss. So going forward I think the underwriting process is twofold. We've got to correct the severe imbalance between exposure in the Gulf and premium generated in the Gulf. And secondly, we need to reduce our exposure in the Gulf of Mexico. And that will be done either voluntarily or not. The capacity available for wind storm will be reducing,

both on the reinsurance side and the direct side.

I think you'll see underwriters writing less and exacting more premium out of that region. And this will be done by wind storm aggregates, wind storm deductibles. You can't have a situation where you're insuring a risk with 30 platforms. The average value of a platform is \$8 million. As a prudent underwriter, one would look at that \$8 million PD value and add, say, 50 or 75% for additional coverages, like removal of debris and labor. They'd add in whatever BI was associated with the platform and OEE to obtain a very conservative number.

And now that \$8-million platform becomes a \$15-million or \$20-million platform. And you say, okay, we've got 30 platforms spread across 200 miles. Let me be especially prudent and say you can lose two of these platforms and all the additions in a severe wind storm. So now you've got \$40 million as your theoretical PML. And you say, it wouldn't imbalance my book to take a 20% line on this, so I can have an \$8-million exposure. Well, then Katrina comes through and that analysis which you had based upon a two-platform loss, is now a 15-platform loss - 15 times 20, that's \$300 million. And you now have a \$60 million loss.

That's something that just can't be corrected with rate increases alone. So you'll see those types of accounts being dealt with very differently.

**BERT DUREL:** Speaking of rates increasing, I didn't know if Frank was going to discuss what you might be looking at in the next year or two with respect to the Gulf of Mexico operations. But we've got some pretty recent feedback from the London market, for example, and just to give you a feel for what we're looking at in the industry, we're looking at 400% rises on offshore property and equipment. We're looking at 65 to 100% rises on control of well offshore. We're looking at 25% to 50% increases on onshore coastal property, which may be wind storm or tidal surge subject.

Twenty-five to 40% increases on liability insurance. And anywhere from 300% to 400% rises on business interruption -- if you can buy it -- and that's also going to take into consideration that they're going to factor in the increased price of oil. So it's not a pretty picture. And once you add the fact that there's going to be aggregation on top of that, it's going to be difficult out there.

**JASON WHEELER:** The aggregation is not just for wind storm. There will be separate aggregates for making wells safe and removal of debris within the overall limit offered. And I know Professor Saunders was suggesting an average of about .9 strikes per year in the Gulf region, so that number is going to be quite critical. Most underwriters are saying that once the aggregate is gone, there may be no more available. In addition, it is likely that contingent LOPI (Loss of Production Income) cover may no longer be available in the majority of cases and excess points are

undoubtedly being increased in LOPI for direct losses arising from a windstorm.

- Rate rises in excess of 400% on property damage
- Restrictions in cover and limit for Making Wells Safe and Removal of Debris
- Annual windstorm aggregates
- Little appetite to write contingent LOPI
- Deductibles increasing on LOPI

**BILL MARTIN:** Just focusing in on the BI and the contingent business interruption, Bill, how is that adjusting process going?

**BILL ROTHHAMMER:** Well, on Katrina and Rita, we're not into the adjusting process. We're into the crystal ball process of how long these plants and refineries are going to be down? How long is it going to take to repair the offshore pipelines, major gas-gathering systems offshore?

Due to the onshore damage, where we had 200 miles of Louisiana and parts of Texas and Mississippi pretty much leveled, and a great deal of the land-based support operations from logistics, helicopters, boats, ROVs, and dive vessels wiped out, claims are moving at a slower pace, as are the repairs. It's first come, first serve out there on repairs. We have a number of jobs that are waiting on ROVs or waiting on diving vessels. And we're seeing two- or three-month forecasts just to wait to get out there and look at the property.

The industry as a whole is concentrating on the major systems that are down in order to start the flow of crude oil and gas. As far as coverage differences, we've seen changes started post Lily which was one of the first hurricanes where there was a loss of production income offshore.

After Lily, and especially after Ivan, we saw that insureds were scheduling the production volumes in the policies. There were two schools of thought, and they still remain to this day from the insureds' policies I see. Some are insuring based on fixed commodity prices to cover continuing expenses to keep operations in place. The fix was usually something less than market pricing, but it does serve the purpose of protecting them from having to lay-off and it protects cash flow. It doesn't necessarily protect any profit that they would have gotten.

The second is where the insured will insure at commodity prices, daily market prices or contract prices. The fixed daily indemnity policies lead to a much simpler claim, a much faster claim to adjust. Hence, at the end of the day, the insured ends up receiving their money quicker. The claims were based upon current market pricing. You've got to watch the market.

One more thing that's come into play since Ivan is that we're now seeing the scheduling of interdependent or non-owned property that may cause a contingent loss of production income and we're seeing that actually scheduled in the

policy whereas historically it was rarely specified.

For example, one of Frank's clients in Ivan had a \$200-million LOPI claim offshore based upon fixed commodity prices and known volumes. Before the end of the year that Ivan struck, over half the claim had been paid by AIG because we could do the calculations.

I see more and more restrictions being put on the contingent business interruption and contingent LOPI claims. And I see that underwriters are asking for the underwriting information. Where does this oil go? Where does this gas go? Who owns that? Hence, if you did not schedule that property, then essentially you don't have coverage for that contingent business interruption.

If that's the wording in their policies, I would advise that insureds and their brokers check that before the start of the next hurricane season. When you write and place your policy in October, it may be a Shell pipeline you are concerned about. But in June of the next year it might be a Devon pipeline. And it's the same piece of equipment, or they may have rerouted it following Katrina, Ivan and Rita so your dependencies all look different now and may be different again next year.

These little nuances, when you get into a claim, can create so much hassle which can be resolved much more easily before a loss with a thorough checking of the data.

**BILL MARTIN:** That certainly implies a higher degree of cooperation between the risk management and finance departments at an oil company with their broker to make sure these things are scheduled and accurate. But that being said, Frank, what do you think about the availability of LOPI and contingent LOPI going forward?

**FRANK COSTA:** Well, I think Bill touched on it. The problem with contingent business interruption is that it isn't contingent. It's business interruption. There's nothing contingent about it. Contingent implies it's further away from the loss in some manner, but it really isn't at all. And similar to what happened on the analysis and assessment of PML or worst case scenario on the PD, underwriters dropped the ball with respect to CBI, because they didn't know the extent of their exposure.

The BI values might be scheduled, or certainly would be scheduled on a policy, and then in the coverage wording it would say "and/or CBI" and it would be left at that. Unbeknownst to the underwriters, that CBI exposure was a multiple of what the BI exposure was. And that's where this product got off-kilter -- not knowing your exposure and not knowing your bottlenecks.

The second part of the flawed strategy on BI is that it's never been rated properly. The rates, due to competitive market pressures and lack of any significant BI losses offshore, and lack of significant hurricane activity, no longer



reflected what the underlying exposure was. Many underwriters calculate BI premium as a percentage of the PD rate. They say the PD rate's 80 cents. Well I think a buck and a quarter is good for the BI without any real understanding of what the bottlenecks are, what the peak exposures are. And certainly not knowing what the CBI is.

BI has got to be rated on a daily indemnity amount of throughput and all of the bottlenecks, and aggregates and clashes have to be explored. Now, if you do it properly, the BI exposure is enormous. But so be it. At least the market, the underwriters and the reinsurers will know what's out there. I think if you get the formula right, there's a viable product going forward, but there will be less capacity for it.

- **No such thing as "contingent" business interruption**
- **LOPI exposures need to be recalculated and accurately quantified**
- **LOPI rating needs to reflect the risk, not be a function of the property damage rate**

**BERT DUREL:** I have a quick question for Bill and/or Frank relative to some of the comments that Bill made with respect to delays in adjusting these claims. Since many of our clients have debt service and continuing expense obligations, what's the attitude towards interim or partial payments being made for LOPI claims?

**BILL ROTHHAMMER:** We're not that far down the road and right now we are just now trying to get a handle on the losses. The insureds are required to provide daily information to the MMS about any facility where production is shut in and interrupted. But that data seems to be captured in the field from the production side and not shifted back to the risk management department. It delays the flow of information to the adjuster in performing calculations.

The strain we're seeing on adjusting these claims is huge and the adjustment process right now is very slow and that's primarily because the insured's personnel have lost their homes and the insureds have lost their shore-based facilities and boat docks.

Also, due to the sheer number and complexity of these combined onshore and offshore losses, the resources just aren't there to handle them. In some instances, the insureds' personnel haven't come back to work and don't plan on going back to work in the field, so everyone is running short-handed. And in other cases, the revenue stream has dried up for the insured and they don't have BI coverage, and they've laid off their workers. I've got one where they have a \$200-million physical damage claim, but the department that used to be 100 and some people is down to 20 people. So it's very tough out there. All of us adjusters, and I'm sure some of the underwriters that came over with us, got caught in their cars outside of curfew and slept in those overnight in New Orleans, and slept in pup tents in camps. It's ugly over there. It's real ugly.

**BILL MARTIN:** That's a very sobering picture. Here is a question I'll throw out to the entire panel: What impact do you think these hurricane losses will have on non-Cat exposed risk overall?

**JASON WHEELER:** The market is trying to replenish the global premium pot. But because of Katrina and Rita, it's been diminished pretty heavily. I think Frank said that there are about \$450 million of offshore Gulf of Mexico premiums. There's probably around \$1 billion of other Gulf Coast energy revenue in the market. In the rest of the world there is about \$2 billion to \$2.5 billion dollars of energy premium.

Whilst the market is significantly increasing prices in the Gulf of Mexico, they're still looking at increasing rates outside of that. We're seeing, at the moment, anywhere between 25% and 35% rises on property damage premium. What we're also seeing is drilling deductibles being increased in line with what's happening in the Gulf as the market can't afford the level of attrition of losses that are still coming through. So because AFEs are rising because of the lack of availability of rigs at the moment, control of well deductibles are in some cases rising quite in line with AFE's for drilling and workover wells. That may have a significant impact, particularly for smaller and medium-sized operators.

These rises outside the Gulf will generate maybe an extra \$.75 billion to \$1 billion dollars in premium. That still leaves the market many billions short before a return to profit for the year. There's still a bit of a gap that has to be filled and that gap will be plugged on Gulf risks.

- **Underwriters trying to replenish the global premium pot**
- **Global increases in premium between 25% and 35%**
- **As AFE's increase due to unavailability of rigs, deductibles are following on OEE**
- **Large shortfall in premium vs claims in the market**

**FRANK COSTA:** If you look at worldwide offshore premium which is estimated to be \$1.5 billion, including the Gulf of Mexico, we are focusing on Cat exposure now because that's certainly what we've been living through. But let's not forget the risk exposure. We're insuring many risks with PMLs in excess of \$1.5 billion. That is a point of discussion. But, I think it was Bill who had mentioned it earlier, the intent of the product is to indemnify the insured for continuing expenses.

There are bank notes, and loan covenants, and ongoing debt maintenance that need to be paid. And if the value of the per-diem amount is set properly to the agreement of underwriters and client, I think it could be a viable product. There's no doubt the oil is still in the ground, but that's not really the purpose of the product.

- **Debt needs ongoing maintenance**
- **Intent of LOPI is to indemnify the insured for continuing expenses**

**QUESTION FROM THE FLOOR:** Does that represent a moral exposure to you?

**FRANK COSTA:** Not if the daily indemnity amount is one which doesn't put the insured in the better position. And let's not forget we're talking about platforms that are jointly owned by a number of companies, and they have more than enough incentive to get up. The fact that they have a loss of production income policy that will help them defray some of their daily costs does not put it in a moral hazard situation.

**QUESTION FROM THE FLOOR:** To help frame this a little better, when you're talking about the estimated losses from these storms, you don't happen to have the breakdown between property damage and business interruption?

**FRANK COSTA:** Actually, we do have a bit of a breakdown. I believe in the case of Hurricane Ivan, of the total of \$1.4 billion, it was \$800 million physical damage and \$600 million business interruption. I don't now exactly what the BI number is on Katrina, but it may be approaching 30% to 35% of the total.

- Katrina LOPI claims around 40% of the total insured loss
- Ivan LOPI claims \$600mm out of a total of \$1.4bn

**BILL ROTHHAMMER:** I would say probably 40%.

**QUESTION FROM THE FLOOR:** This is a question about mobile units colliding with fixed platforms and in particular Typhoon - can you explain a little bit about how you handle this? What happens when one rig hits another rig? And do you guys actually cover that collision damage?

**BILL ROTHHAMMER:** I can't speak specifically because we're handling the Typhoon claim for Chevron. But it's yet to be seen that the rumors of a rig collision resulted in it capsizing, or whether or not that is the true proximate cause

of the event. The storm activity in that area was fairly catastrophic, and that is being looked at very hard as to its tension leg connections as well. In general, in these cases we see a lot of attorneys get involved!

**FRANK COSTA:** In theory, there could be a liability exposure to the rig that hits the platform. But in practicality in a Category 5 storm you would have to prove that that rig was improperly maintained, or improperly moored, and in breach of current standards. And then you overlay onto that a Category 5 storm of a 100-year storm or more, it would be very difficult proving liability. So in my experience it would come down to the physical damage coverage, picking up the damage to the platform and the rig not being held liable. But this is just a general statement.

I think we've already assumed that it was proven that the rig did hit the platform, which is the first problem, very difficult to prove. But let's say the anchor is there, you would still have to prove that that rig was negligently maintained and moored, which is a difficult task.

**BILL ROTHHAMMER:** There's the Act of God defense in that.

**QUESTION FROM THE FLOOR:** What if you dragged an anchor across the pipeline and tore it up?

**BILL ROTHHAMMER:** It's a similar situation.

**BILL MARTIN:** One thing to think about when rates go up and the market is reacting to severe losses: What about flows of new capital, new facilities? Who are going to be the major players going forward?

**BERT DUREL:** I asked Frank if I could include AIG as a major player going forward and he told me he preferred to wait until Professor Saunders' analysis before he would answer



that question! But in lieu of that I'm going to just quickly run through what we believe are the key players in the domestic North American market.

Obviously, AIG, Starr Tech, Zurich, St. Paul, Ace, Liberty, Arch, Allianz, XL, Commonwealth and Houston Casualty. I don't think there are any surprises there. Those companies have traditionally been the key players and we think they'll remain the key players.

When we look at the other side of the pond, I thought it would be helpful to give you a couple of little figures here, just to give you an idea of what's been going on in London for the last 20 or so years. In 1984 there were 409 Lloyds syndicates. In 2005 there are 62 Lloyds syndicates. Less than 60% of those syndicates participate in energy or energy-related insurance. While there are fewer syndicates, they are much larger. Most of them are composite syndicates and the average capacity of each is about \$425 million. Ironically, and for the first time in quite some time, capacity went down about 8% in 2005 among those syndicates.

When we look at the onshore market in London, Lloyds is virtually insignificant in that particular arena. The leaders there are AIG, once again, Ace, Munich Re, Swiss Re and Axa. When we look at the offshore coverages, we have the usual list of suspects that maintain leader positions. Hiscox, Wellingtons, Watkins, Amlin and Chaucer are the other perennial lead markets over there.

But because there are maybe 34/35 syndicates writing marine and energy business, there are fewer choices. And it's critical that we get significant lead time on those accounts to make sure that we'll be able to place that business.

Interestingly, one market, Ace, decided to pull out of the Gulf of Mexico, and they did so before the hurricane season came about. And more recently, Allianz has decided that they're going to enter the offshore market in the Gulf of Mexico. At the moment, the leaders remain consistent in both the domestic and the London market.

**JASON WHEELER:** There is also a lot of new capital coming into the market, and I'm sure if people have read the financial papers you'll see about 12 new companies announcing start-ups in Bermuda and elsewhere with about \$10 billion of capital. And it all looks absolutely wonderful. But if you break that down a little bit, it appears that only a small percentage of those companies will play in the energy arena. If they have been capitalized with \$1 billion, it appears to be a large amount of money. But that probably means that they'll only write about \$100 million of aggregate in their first year in the Gulf of Mexico, which for most of the people here with assets of much more than that means very little impact on rates and capacity at this stage. These companies have been created with the intent of taking advantage of a dramatically hardening market, they have not been created to compete and drive prices back down.

The one thing that is more interesting is that we actually are seeing that the hedge funds and capital markets showing a lot more appetite for pure energy risks. This is something they haven't done in the past, but for the first time they appear to not only wish to participate but they are competitively pricing their product. Bert, do you want to comment on that a bit further?

**BERT DUREL:** Out of necessity, we've had to start investigating the non-traditional markets, the capital markets, to maybe fill in some of the gaps that we're anticipating in the conventional marketplace. And we've been pleasantly surprised to see that they do have an appetite for working with us. We are currently talking to a number of those markets regarding some products where we can buy down deductible on LOPI coverage. We're even talking to some potential markets with respect to a multi-year excess aggregate wind storm cover.

We think it's extremely important to be able to provide these types of coverages, both below and above what the conventional marketplace is going to be able to provide, in order to fill in those gaps and provide some protection for them. So we're pleased to see that they do have an appetite for at least looking at this type of business and several of our clients and prospective clients have agreed to work with us on these types of programs.

We're very fortunate in having an experienced group of people that work with these non-traditional markets and Rod Fox, from New York, is one of those people. Rod do you want to just make a couple of quick comments?

**ROD FOX:** Sure. I've worked in the reinsurance business for about 20 years with Benfield and its predecessor companies. Talking about the capital markets, over the last five years we've seen the capital markets looking for non-corporate risk. And they looked in the insurance market and they really started in the reinsurance market, specifically the hedge funds, using special purpose vehicles for specific transactions. We've probably done 60 to 70 transactions where hedge funds are actually coming in and putting capital in a facility allocated specifically to an insurance transaction.

And as we look at some of the issues, Frank was talking about contraction of capacity, so if you're going to do a insurance transaction why not provide some LOPI coverage underneath the deductible, or excess wind storm coverage on top of a program. There's a trillion dollars in capital out there. What we've seen is the insurance market capital, in certain segments, just isn't enough to offer cover going forward

We think there's a real viable alternative there and we're actively involved in a number of transactions. So, as you start looking at your program and thinking differently about the risk management, we'd love to help you with that.

- Number of insurers has contracted over last 20 years
- Fewer choices – similar panel of leaders
- Around \$10bn of new capital between 12 new companies
- New capacity will have little immediate impact on rates or available capacity
- Non-traditional markets offering attractive alternatives
- Opportunities to look at deductible buy downs for LOPI, "excess" windstorm cover

**BILL MARTIN:** One question that sort of brings this all together and our purpose of bringing you in here was not to overstate what's going on, it's trying to put you out in front in terms of thinking about what's coming, as opposed to reacting to it once it gets there. But the question is, should insureds be thinking differently about their risk management programs and their processes going forward?

I'll address that first and then I'll kick it over to the panel. Having been on the corporate side of the equation for a few years, it always strikes me that a lot of programs for insureds look very much alike, even though the insureds themselves look very different in terms of assets and even more so in terms of the shape of their balance sheet. And even the same company looks different at different times. Right after a major acquisition when you're laden with debt, your insurance program might look quite differently than it would once that debt is paid down and your cash flow is in an optimum position.

Now, your program may look one way when commodity prices are X and another way when they are Y. So I think there is tremendous room for customization in terms of individual programs. Now the problem is when there's cheap insurance and nobody wants to take the time to do the hard work with customized programs. But I think we're entering a phase where there will be a return on investment for time spent closely examining your individual risk profiles and customizing an insurance program to really fit that. Anybody on the panel want to comment?

**FRANK COSTA:** I think Professor Saunders called the hurricane activity in the Gulf of Mexico this year and last year a market-changing event. That's exactly what it was. It's no longer the old playing field. Who would have ever thought that wind storm capacity in the Gulf of Mexico would be in short supply. As an industry, we always grappled with providing enough capacity for risk exposures, that was always the difficult part to keep up with the Hibernia's and the Statfjord's of the world. Now we see wind storm capacity becoming perhaps a finite, if not a scarce resource. Will it get to the point where we have to track our wind storm exposures the way the property markets track earthquake capacity? If that's the case it's going to be a very different for clients. Who would have thought that OIL would be paying out less than 50 cents perhaps on the dollar on what was always a solid \$250 million PD wind storm and risk layer that

the OIL members could count on. Now they can't count on it the same way. So, most definitely it is a sea change.

- Market-changing event
- Historical problem was providing capacity on large single structures
- Now problem is providing capacity for windstorm

**BILL MARTIN:** Anybody else? Any questions?

**QUESTION FROM THE FLOOR:** I guess in terms of what we've heard Professor Saunders talk about, would it surprise anyone on the panel to learn that some mobiles in the Gulf of Mexico are moored with a criteria that doesn't withstand the wind speeds that we have been experiencing in these recent storms? Also, would it surprise you to know that the five-year return period is used for many of the mobiles in their design criteria. My question to the panel is by customizing the program for the insured would you give a different grade for those people designing to 100-year criteria rather than those who are designing for 10 years?

**BILL MARTIN:** That's an excellent question and that's where I was going with this. Because it's a two-sided equation, it's the client side and it's the underwriting side. Will they recognize the additional investment to invest in that 100-year criteria?

**FRANK COSTA:** Absolutely, that's actually an excellent point. Risk differentiation will be key going forward. Underwriters will be asking for a lot more information with respect to fixed properties, age of the platform, air gap will become a key component as to how much wind storm capacity we will be able to provide and at what cost.

And we really haven't spoken about rigs in this discussion and I'm glad you brought it up, because jack-ups are the most vulnerable to this type of event we've seen. And I think there will be a great distinction made between semi-submersibles, jack-ups, drill ships, and where they're operating and what their return period is.

**BERT DUREL:** I think it's critical in today's marketplace that you differentiate yourself from your peers in the business. In my 34 years in the business, I've never seen it be more important than to do it right now. This is a very difficult marketplace. And I think if you let the market drive you, with all due respect to Frank sitting here next to me, the impact could be potentially devastating to your company.

I think you need to figure out ways where you can drive the market. And the best way to do that is to differentiate yourself. To go in with a solid package, with good information, and talk to your underwriters about why they should be writing your business and giving you a better deal than they're giving your peers down the street.

**JASON WHEELER:** I also think it's important that people prepare early, much earlier than for previous renewals. For companies whose renewals fall in the next few months, you have a renewal straight after the Hurricane season has finished, so you have to get data together as soon as possible. A danger is that the companies renewing in the middle of next year kind of sit back and wait and wait, and then all of a sudden they've got a renewal happening. You really can't do that at the moment. You have to sit down, maybe with a blank paper, with your broker, and say: "This is what we've got. This is what we need. What can we do?"

If you go into the market the way it is at the moment you're going to end up with a commodity type program with no differentiation of risk. The market is offering a standardized product to all - reduced limits, restricted coverage, higher deductibles and the conventional market is basically saying that the premium charged is calculated as a rate on line based on the aggregate windstorm limit they offer each client. If you have not offered the information and really thought about your risk together with your broker, it doesn't really matter, if you have not prepared the data well in advance, if you've got a 10-year return design criteria or if you've got 100-year return. What they're saying is that managements are asking them to provide a return on their equity. And if they provide that return, they've got a job. If they don't, they don't.

So, they're not going to be the ones to break ranks and say you can have a 300% premium increase because you've got a better set of design criteria than the next guy who will get a 400% increase unless you can really demonstrate your risk is better. I would urge people to start working as soon as they can. Risk management and insurance has become a high profile item with all the CFOs and CEOs over the last few weeks. So maybe the issue of preparing well in advance will get forced anyway due to internal concerns.

I learned a new word in the last couple of weeks talking to my Benfield colleagues here in Houston, which is "customerized." I am not sure if it's in the English dictionary, or even if it should be! However customerizing your risk purchasing as opposed to commoditizing it is terribly important. Otherwise, you will be unable to differentiate yourself from your competitors and you will receive an inferior product, or in some cases no product at all. Your broker needs to be your advocate to the market and also be able to offer different solutions, rather than just letting the market dictate to you.

- Insurers will differentiate risks by quality
- Information needs to be accurate and detailed
- Start preparing now for renewals
- Your broker needs to be your advocate in the market
- Use analysis and modeling tools – ReMetrics
- Start with a blank sheet of paper
- Your broker will need to be able to offer new and different solutions
- Customerize not commoditize

**BILL MARTIN:** Well, on that note, I would just like to thank all the members of our panel and give a little bit of an advertisement here. It's what we're about. We're about starting with a blank sheet of paper. We're about putting some hard work in analytics and the modeling for you to be able to consider the financial ramifications of changes in the program. To really help you to get to senior management and talk about real retention levels, as opposed to just accepting what was historically comfortable. All those issues will come to the forefront and we would be pleased to bring all the experience we have to bear on those problems so that we can create a bespoke solution for you.

We think this is very important. We think it's critical for your shareholders that the management teams get out in front of this and we'll be here to help you in any way we can. Thank you very much.

I'd like to thank all of our panelists for taking time out of their busy schedules.





## TRANSFERRING RISK IN A DISTRESSED MARKETPLACE

Professor Mark A. Saunders characterized the 2004 and 2005 Gulf hurricanes as market-changing events. No doubt, these events have certainly changed the way energy risks in the Gulf are mitigated and transferred for the foreseeable future.

Symposium participants offered valuable insights on how energy companies should operate in this difficult marketplace:

- Insurers will be weighing risks more closely than ever before. Therefore clients should ensure their information is accurate, detailed and expertly presented. Prepare early!
- Use analysis and modelling tools to provide an accurate and detailed picture of your risk profile.
- Energy industry companies may have to move out of their comfort zones in regards to retention levels.
- In this market, more than ever, your broker needs to be your advocate, not a mere facilitator.
- Start with a blank sheet of paper.
- There are alternatives - do not accept a commoditized product.
- Alternative markets are offering solutions - explore them
  - Excess windstorm cover
  - Business Interruption deductible buy-back
  - OIL Wrap drop-down replacements

We would be pleased to offer our expertise and experience to assist you in creating a customized solution for you.



## Global Locations

### Houston:

909 Fannin Street, Suite 1700  
Houston, Texas 77010, USA  
T: (713) 739 3600  
Toll Free: (886) BENFIELD  
F: (713) 739 3602  
E: bill.martin@us.benfieldgroup.com

### New York:

1 New York Plaza, 32nd Floor  
New York, NY 10004  
T: (917) 320 4285  
E: richard.magilson@us.benfieldgroup.com

### London:

55 Bishopsgate  
London, EC2N 3BD, UK  
T: +44 (0)20 7578 7000  
F: +44 (0)20 7578 7001  
E: benfieldCR@benfieldgroup.com

### Singapore:

80 Raffles Place #42-01  
UOB Plaza 1, Singapore 048624  
T: +65 6512 0206  
F: +65 6532 0081  
E: allen.nicely@benfieldgroup.com

### Bermuda:

Wessex House, 45 Reid Street  
Hamilton HM 12, Bermuda  
T: (441) 296 4546  
F: (441) 296 4547  
E: keith.sheridan@benfieldgroup.com

### Seoul:

Kyobo Life Insurance Building 15F  
1, Jongro1-Ga, Jongro-Gu  
Seoul, Korea 110-714  
T: + 822 2287 4850  
E: benfieldCR@benfieldgroup.com

### Washington DC:

1300 Wilson Boulevard, Suite 990  
Rosslyn, VA 22209, USA  
T: (703) 276 4900  
F: (703) 276 4901  
E: johne@isbworld.com

### Paris:

42, avenue de la Grande Armée  
Paris 75017, France  
T: +33 (0)4055 5061  
F: +33 (0)4055 0160  
E: tmangot@isb-france.com

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