
envision
Berlin

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THURSDAY

8:00 - 9:00	Breakfast and Registration
9:00 - 9:15	Welcome and Opening Remarks
9:15 - 9:45	AIR Worldwide Vision and Strategy
9:45 - 10:30	AIR's Software and Technology Vision
10:30 - 11:00	Break
11:00 - 11:45	Introducing Analyze Re
11:45 - 12:30	Managing Casualty Accumulations with Arium
12:30 - 14:00	Lunch
14:00 - 14:45	2017 US Earthquake Model: Hazard Module Revamped
	What's New in Touchstone?
14:45 - 15:30	2017 US Earthquake Model: Increased Insight into U.S. Earthquake Vulnerability
	Harnessing the AIR Cloud Today and Going Forward
15:30 - 16:00	Break
16:00 - 16:45	The New and Updated Australia Models
	What to Expect from AIR's Gen-3 Modelling Framework
16:45 - 17:30	New Advancements in Flood Modelling for Japan
	Preview of Touchstone Re
19:00 - 22:00	Offsite Event

FRIDAY

8:00 - 9:00	Breakfast
9:00 - 9:15	Opening Remarks
9:15 - 10:00	Research Roadmap
10:00 - 10:45	Innovations in Modelling Cyber Risk
10:45 - 11:15	Break
11:15 - 12:15	Climate Change – A Panel Discussion
12:15 - 12:45	The Verisk Advantage Explained
12:45 - 14:00	Lunch
14:00 - 14:45	Hazard Enhancements for the 2018 Extratropical Cyclone Model for Europe
	AIR's Geospatial Vision
14:45 - 15:30	Introducing the Hazard Component of the New 2018 Severe Thunderstorm Model for Europe
	Developing Custom Models with Touchstone Model Builder
15:30 - 16:00	Break
16:00 - 16:45	Preview of Vulnerability Considerations for the 2018 Severe Thunderstorm and Extratropical Cyclone Models for Europe
	Using Cat Models to Help Inform the Structure of a Cat Bond
16:45 - 17:30	Preview of the Central European Flood and Great Britain Coastal Flood Models
	Model Validation: Best Practices

GENERAL SESSIONS

AIR WORLDWIDE VISION AND STRATEGY

Presenter: Bill Churney

The President of AIR Worldwide, Bill Churney, will present AIR's vision for the future of catastrophe risk modelling and the impact of technology trends on the industry. He will also will review our continuing efforts to work in collaboration with Verisk Analytics and our expanding portfolio of models and software offerings.

INTRODUCING ANALYZE RE

Presenter: Adrian Bentley

Acquired by Verisk Analytics in 2016 and now part of AIR Worldwide, Analyze Re is a Software as a Service (SaaS) platform that provides real-time analytics and optimisation tools to significantly improve pricing, roll-up, and strategic planning for reinsurance contracts and portfolios. In this session, Senior Vice President and Managing Director of Analyze Re Adrian Bentley will provide an overview of the platform and discuss how it can be used to extend your organisation's analytical capabilities. You will also learn how Analyze Re fits with AIR's existing suite of tools and how these solutions can be integrated.

MANAGING CASUALTY ACCUMULATIONS WITH ARIUM

Presenter: Robin Wilkinson

Acquired by Verisk Analytics early in 2017, Arium broadens AIR's risk modelling capabilities to include liability. Arium's solutions enable companies to understand and manage their casualty accumulation risk. In this session, Robin Wilkinson, Vice President and Managing Director of Casualty Analytics, will discuss the risk posed by extreme liability events and explain how the cloud-based Arium platform can help organisations assess their overall exposure to these types of events.

RESEARCH ROADMAP

Presenter: Jay Guin, PhD

At AIR, we continue to expand the scope of what can be modelled, moving beyond natural and man-made catastrophes to investigate new areas of risk that focus on global interconnections. This means we need to model ever more complex and interrelated systems to understand how events that occur in one region might result in a vast array of consequences around the world. Our research encompasses everything from trying to untangle the global supply chain as it exists in both the digital and physical worlds to managing the risks of climate change. However, what may be less apparent is that the world of modelling "traditional" natural catastrophes is also undergoing transformational change. Newly available Earth observations and a near-constant stream of new data received from sources all over the world are driving the expansion of models to include new regions and perils, as well as supporting major upgrades to our existing suite of models.

INNOVATIONS IN MODELLING CYBER RISK

Presenter: Scott Stransky

Cyber risk is making the transition from an emerging threat to a growing business opportunity, and the insurance industry is increasing its investment in this sector accordingly. AIR is developing new cyber underwriting and portfolio management tools to support the market's needs for improved cyber risk management capabilities. In this session, you'll learn about the advancements being made in modelling cyber risk and how AIR's approach can provide actionable insights into your risk.

AIR'S SOFTWARE AND TECHNOLOGY VISION

Presenter: Sudhir Potharaju

Join us for an in-depth discussion of the future we envision for AIR's software and technology. This session will focus on a few topics, including our plans for the evolution of Touchstone®, the growing importance of the cloud, and the way modelling software can adapt to take advantage of new hardware designed to meet needs of each type of job and integrated software components that can make AIR's platform more robust and secure.

THE VERISK ADVANTAGE EXPLAINED

Presenter: Milan Simic, PhD

The insurance industry continues to evolve with the increasing availability of data and analytics designed to optimise decision-making. How can (re)insurers' business evolve and gain a competitive advantage? In this session, we will answer that question as you learn about the activities of Verisk Analytics in the insurance space, including innovations in underwriting global commercial properties, claims management, and the application of telematics.

CLIMATE CHANGE – A PANEL DISCUSSION

Moderator: Milan Simic, PhD
Panellists: Peter Sousounis, PhD; additional panellists TBA
As the Earth's climate is changing, the insurance industry is faced with complex challenges, with no simple answers. What does climate change mean for catastrophe modelling and the insurance industry in the next 10 to 15 years and beyond? How can insurers manage to regulatory mandates? In this interactive panel discussion, industry experts will share their perspectives on their views on climate changes' implications for the insurance space.

RESEARCH & MODELLING

HAZARD ENHANCEMENTS FOR THE 2018 EXTRATROPICAL CYCLONE MODEL FOR EUROPE

Presenter: Eric Robinson, PhD
With new data collected and lessons learned from recent storms in Europe and around the world, AIR has developed a set of enhancements to our existing Extratropical Cyclone Model for Europe. This session will begin by reviewing highlights of the existing model and then cover the latest updates to the hazard component of the forthcoming model, including incorporating the North Atlantic Oscillation, adding more historical events, bias correction through geo-statistics, and improved storm clustering.

INTRODUCING THE HAZARD COMPONENT OF THE NEW 2018 SEVERE THUNDERSTORM MODEL FOR EUROPE

Presenters: Eric Robinson, PhD, and Bernhard Reinhardt, PhD
Severe thunderstorms can account for more than one third of the annual insured losses in Europe related to atmospheric perils. This session will walk you through the hazard component of the model, describe how AIR's global experience in severe thunderstorm modelling has been applied, and discuss how data from the Europe Severe Weather Database, information on the basic state of the atmosphere, and various radar products have been combined in a hybrid physical-statistical approach to provide a comprehensive view of severe thunderstorm risk across Europe.

PREVIEW OF VULNERABILITY CONSIDERATIONS FOR THE 2018 SEVERE THUNDERSTORM AND EXTRATROPICAL CYCLONE MODELS FOR EUROPE

Presenter: Cagdas Kafali, PhD
In this follow-up to the hazard discussions of the new severe thunderstorm and updated extratropical cyclone models for Europe, Dr Cagdas Kafali will provide an in-depth look at the vulnerability components for both models. From expanded coverage supporting new lines of business and new countries to updated damage functions with greater granularity, you'll learn how these models provide a comprehensive view of wind risk across Europe.

PREVIEW OF THE CENTRAL EUROPEAN FLOOD AND GREAT BRITAIN COASTAL FLOOD MODELS

Presenter: Bernhard Reinhardt, PhD
Insured exposures in Europe continue to grow and are becoming an increasingly larger part of global re/insurers' portfolios exposed to flood risk and storm surge. To help companies assess their exposure to damaging floods, AIR researchers are expanding the domain of the Central European flood model to include Poland and updating the model for Austria, Czech Republic, Germany, and Switzerland. We will also be increasing the domain of the coastal flood model for Great Britain to include all of England and Wales.

2017 US EARTHQUAKE MODEL: HAZARD MODULE REVAMPED

Presenter: Claire Pontbriand, PhD
In this session, you will learn from Dr Claire Pontbriand about three key enhancements to the model: incorporation of recent hazard data, a new induced seismicity module, and a full range of earthquake-triggered perils (ground shaking plus the fire following, tsunami, liquefaction, landslide, and sprinkler leakage sub-perils). After attending this session, you'll come away with a solid understanding of the scientific data that went into the model and how it will provide you with a more granular view of seismic risk.

2017 US EARTHQUAKE MODEL: INCREASED INSIGHT INTO U.S. EARTHQUAKE VULNERABILITY

Presenter: Andrew O'Donnell
Following the 2017 U.S. Earthquake Model: Hazard Module Revamped, join Andrew O'Donnell for a discussion on new research and innovative methodologies used to advance the vulnerability module. By attending this session, you will learn about the state-of-the-art technologies used to address regional differences and evolution of seismic codes and design practices, as well as the support for builder's risk, large industrial facilities, direct and contingent business interruption, and worker's compensation lines of business, and the special consideration for high-value homes.
After attending this session, you will walk away with an understanding of the model changes to ensure you are best prepared to own the risk.

THE NEW AND UPDATED AUSTRALIA MODELS

Presenters: Shane Latchman and Caroline McMullan, PhD

During this session, we will explore AIR's suite of Australia models, including the new severe thunderstorm model, which captures the risk of these frequent, potentially costly storms across the entire continent. This session will provide an overview of the key features of the severe thunderstorm model, including explicit modelling of tornadoes, hail, and straight-line winds. AIR will also provide an overview of updates to the earthquake, bushfire, and tropical cyclone models for Australia, including updated ground motion prediction equations used in the earthquake model and the utilisation of remote sensing to build a new fuels map for the updated bushfire model.

NEW ADVANCEMENTS IN FLOOD MODELLING FOR JAPAN

Presenter: Marc Marcella, PhD

AIR is pleased to introduce improved methodologies to flood modelling that will explicitly model the effects of precipitation from all sources. During this session, Dr Marc Marcella will discuss AIR's first application of these flood modelling enhancements, in the new AIR Inland Flood Model for Japan, as well as review updates to the Japan typhoon model. The session will conclude with a view of modelled losses for all three perils: inland flooding, wind, and storm surge.

SOFTWARE & TECHNOLOGY

WHAT'S NEW IN TOUCHSTONE?

Presenters: Ffion Watson and Marius Henseli

Touchstone 5.0 incorporates a number of key enhancements designed to streamline workflow while continuing to expand the platform's risk management capabilities. We've added multitasking capabilities that so that you can keep multiple projects open and switch between them with ease. We've implemented new software features aimed at simplifying many of the common tasks involved in comparing results and validating models. And, for the first time, we've made third-party models accessible directly within Touchstone, with results that can be combined with AIR model output for a true multi-model assessment of risk.

DEVELOPING CUSTOM MODELS WITH TOUCHSTONE MODEL BUILDER

Presenter: Gayatri Natarajan

At AIR, we continue to explore ways to help our clients harness the power of Touchstone to develop their own models for a variety of risks, perils, and regions. Touchstone was developed to be an open platform that can be used to host a wide range of models. To that end, we are developing a framework for implementing third-party custom models within Touchstone. You can build a catalogue of events, define the intensity of the peril, and develop custom damage functions to create a model for any region or peril. If you've ever wished you could develop your own models, this session will show you how to do just that within the Touchstone framework.

PREVIEW OF TOUCHSTONE RE

Presenters: Anke Sielker and Colette Karakashian

Starting next year, Touchstone Re will bring state-of-the-art reinsurance underwriting and enterprise portfolio management capabilities to AIR's catastrophe risk management platform. The first release of Touchstone Re will include much of the functionality currently provided by CATRADER®, including aggregate modelling, full support for complex reinsurance terms, and portfolio roll-up capabilities. In this session, we'll discuss some of the features that will be available in 2018 to support enhanced portfolio analytics, exposure data warehousing, and reinsurance pricing and will include a demonstration of what you can expect from Touchstone Re.

AIR'S GEOSPATIAL VISION

Presenters: Sudha Maheshwari and Kate Stevens

More than ever, companies are seeking powerful new ways to visualise and understand their exposures and risks by using geographic information system (GIS) technology. In this session, discover how AIR is leveraging GIS and spatial technologies to solve problems within the risk management sector today and how Touchstone's Geospatial Analytics Module will evolve over future releases, including the upcoming Touchstone 5.1 release, to help you better manage risk.

HARNESSING THE AIR CLOUD TODAY AND GOING FORWARD

Presenter: Peter Lewis

Companies are increasingly turning to cloud-based solutions to reduce overhead and streamline their operations. The AIR Cloud provides a complete turnkey solution that simplifies the deployment of catastrophe modelling platforms and allows you to focus on what really matters—managing your risk. In this session, Peter Lewis, Senior Vice President of Information Technologies and Services, will describe how AIR has recently expanded our cloud capabilities for Europe and what the future holds in terms of AIR further embracing the cloud.

WHAT TO EXPECT FROM AIR'S GEN-3 MODELLING FRAMEWORK

Presenters: Baldvin Einarsson, PhD, and Shane Latchman

AIR is in the process of re-architecting core components of our models and financial module to provide our clients with greater transparency and flexibility as we implement our Gen-3 Modelling Framework. Using case studies, this session will explain the business benefits this updated architecture will offer. The Gen-3 framework will provide a more robust treatment of uncertainty and the ability to support an even wider array of complex commercial policy terms and reinsurance treaty structures.

MODELLING FUNDAMENTALS

MODEL VALIDATION: BEST PRACTICES

Presenters: Katherine Westlake (AIR) and Junaid Seria (SCOR)

In this session, we will review best practices for validating models, such as comparing with actual observed losses. Topics include a review of AIR's top-down and bottom-up validation processes and the challenges involved in validating model results in various regions around the world. You will also learn about some of the key differences between detailed and aggregate modelling and how to effectively benchmark modelled losses against available historical loss data and learn about the range of resources AIR has made available to assist in model validation for Solvency II and other purposes. SCOR will also discuss how vendor services are used in validation, including the quantification of non-modelled risks and applications in model adjustment, as well as how validation is applied across all their business activities.

USING CAT MODELS TO HELP INFORM THE STRUCTURE OF A CAT BOND

Presenters: Harry White and Florian Heimann

In this session, we'll review structural features used in insurance-linked security (ILS) transactions, including primary trigger types and resets. We will also discuss current market trends and how to weight the tradeoffs in choosing the most appropriate structure for your risk transfer use case.