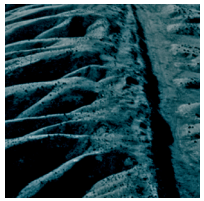
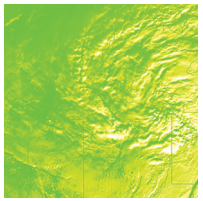
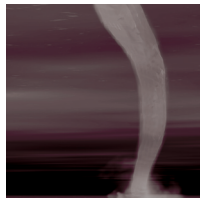
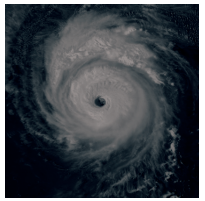
The AIR Institute Catastrophe Modeling Certification Program

MEETING THE GROWING NEED FOR TALENT IN CATASTROPHE MODELING & RISK MANAGEMENT

The AIR Institute Catastrophe Modeling Certification Program
MEETING THE GROWING NEED FOR TALENT IN CATASTROPHE MODELING & RISK MANAGEMENT

The increased focus on catastrophe management by corporate boards, executives, rating agencies, and regulators has fueled a growing need for talent in the form of skilled catastrophe modelers. The AIR Institute's Catastrophe Modeling Certification Program meets this need head-on with a comprehensive, intensive, and interactive program designed to groom the next generation of modelers. Successful candidates in the Program become AIR Institute Certified Catastrophe Modelers™ (AIR Institute CCM™), immediately prepared to add more value to their organizations.



Catastrophe risk management professionals completing the Program gain:

- A more detailed understanding of the science and technology underlying the models
- Skills in handling and validating the business data entering the models and software
- In-depth knowledge of the nature of analysis options and assumptions and their impact on model results
- Efficiency in importing and exporting data and optimizing analysis run-times
- Ability to apply best practices in gathering and interpreting the output of model analysis
- Practical expertise with AIR's software applications, including modeling of complex business situations
- The background necessary to synthesize and communicate analysis results to senior management

The bottom line: an AIR Institute CCM will have the necessary tools to employ and communicate best practices in catastrophe management throughout organizations concerned with risk.

"It was a very rewarding and worthwhile week and I look forward to putting the things I learnt to use. Attending the program provided me with an opportunity to build best practices for analyzing and interpreting modeling results, and I developed an in-depth understanding of both the science and statistics behind catastrophe models."

ROBERT DEACON, SENIOR ANALYST AT ADVENT UNDERWRITING LTD.

WHO SHOULD ATTEND?

Anyone with responsibility for catastrophic hazard risk analysis, management and decision-making will benefit from the Program. It will be particularly useful for:

- Insurance financial managers
- Actuaries
- Underwriters
- Catastrophe modeling managers and analysts
- Insurance and reinsurance brokers

ADDITIONAL BENEFITS TO ATTENDEES

- Recognition as an AIR Institute Certified Catastrophe Modeler (AIR Institute CCM)

- Eligibility for Continuing Professional Development credits from:
  - >> American Institute for Chartered Property Casualty Underwriters (CPCU)
  - >> Chartered Insurance Institute (CII)
  - >> American Academy of Actuaries (AAA)

BENEFITS OF EMPLOYING CERTIFIED MODELERS

- Better data quality and validation to support internal and external catastrophe analysis

- Improved efficiency and throughput in the catastrophe modeling function

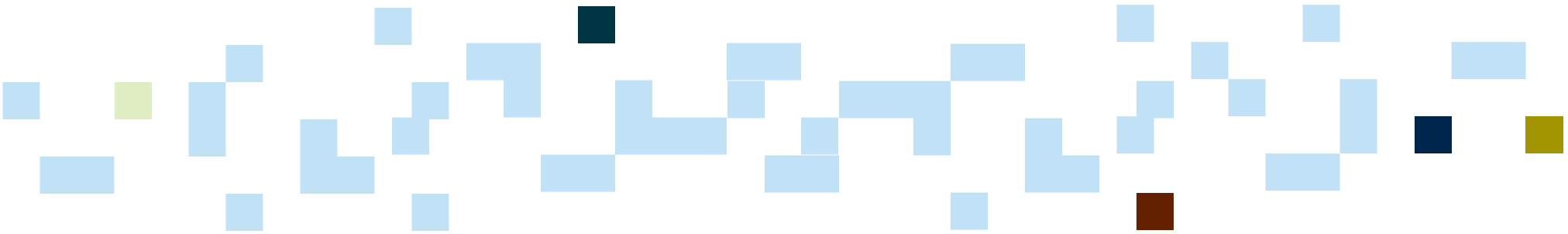
- Fuller scrutiny of sensitivity of the results to changes in modeling data and analysis assumptions

- New insights as modeling capabilities extend to more complex business and financing scenarios

- Crisper and clearer communication of the major conclusions regarding catastrophe risk

"Yesterday my boss was asking what the numbers mean, and I was able to explain on a level that the underwriters understood. The class definitely gave me the skills to help me 'talk the talk'."

HEATHER PRICE, CAT MODELING ADMINISTRATOR, BURT AND SCHELD FACULTATIVE CORPORATION



Program Details

PROGRAM STRUCTURE

The Program's centerpiece is five full days of classroom learning. A mix of lectures, interactive demonstrations, and hands-on exercises with AIR models and software will bring each syllabus topic to life for Certification candidates. The week-long session is bookended by pre-session readings and recordings and a comprehensive final exam with both a written component and a practical demonstration of modeling skills.

FACULTY

Each syllabus unit is led by a senior AIR professional experienced in the relevant topics, many with Ph.Ds in their fields. Instructors are supported by teaching assistants offering on-demand, one-on-one tutorial support for the lectures and exercises. Periodic quizzes are also completed with faculty assistance to reinforce learning and retention.

MATERIALS

Candidates are provided with handouts and/or online materials containing all lecture slides and notes, exercise data files, reference documents, and quizzes and exams.

LOGISTICS AND HOSPITALITY

Breakfast and lunch are provided each of the five classroom days, with a welcome reception on Monday and a celebration dinner on Thursday. Dress code is business casual. It is recommended that attendees arrive Sunday night and depart late afternoon or evening on Friday, as each day's activities begin at 9:00 AM and end about 5:30 PM local time.

"As a result of the AIR Institute's Certification Program I now can ask the right questions of my modeling team. I believe that this tighter link between the decision-makers and the modelers will provide us with a competitive advantage."

GARY KRATZER, SVP OF PARTNER RE

Program Overview

BUSINESS OVERVIEW

In the opening unit, AIR faculty will provide a general overview of the evolution of catastrophe modeling, placing it in the larger context of critical business decisions regarding insurance pricing and underwriting, portfolio and financial management, and interactions with private and public sector stakeholders.

HURRICANE MODELING FUNDAMENTALS

Participants will learn about hurricane meteorology and how key variables are used to generate stochastic events. They will learn about storm intensity footprints. The impact of terrain on storm intensity, and the relationship between storm duration and fatigue failure will also be explored. They will also learn how vulnerability functions are developed to create ground-up hurricane losses. The impact of exposure characteristics on loss calculations will be examined. This session will also discuss the impact of climate change and the uncertainty surrounding the quantification of its impact on landfall frequency and insured losses.

EARTHQUAKE MODELING FUNDAMENTALS

Why and where do earthquakes occur? How big are they likely to be? Why do they sometimes cause damage and sometimes not? What buildings are more vulnerable and why? This session examines the nature of earthquakes and the physical behavior of buildings subjected to ground motion. The topics covered describe the AIR earthquake modeling process, from the analysis of historical seismicity, stochastic catalog generation, and the attenuation of seismic waves to the development of building damage functions, the analysis of secondary vulnerabilities such as soft-stories or corner buildings, and the estimation of loss. Through interactive exercises and in-classroom demonstrations, the participants will acquire an intuitive understanding of the earthquake modeling process, its challenges and its limitations.

EXPOSURE DATA HANDLING

This unit will address the import, conversion, and export of data for modeling, along with best practices for maximizing the completeness and validity of the data, whether property-level or aggregated, and optimizing its performance in the analysis phase. Several hands-on exercises provide data handling lessons in realistic situations.

CLASIC/2™ UNDER THE HOOD

In this session participants will learn how CLASIC/2 analyzes exposure to provide a robust probabilistic view of catastrophe risk. After an introduction to CLASIC/2's architecture and user interface, the wide variety of analysis options will be covered and best practices discussed.

The impact on results of assumptions and model analysis option selections will be examined. Special attention will be paid to the linkage between the software and the models. Hands-on practice sessions will provide the attendees with experience in how the software can be used to meet specific objectives tied to practical underwriting and portfolio management applications. Lastly, participants will learn about CLASIC/2's reporting and data export capabilities.

CATRADER® UNDER THE HOOD

Users of aggregate exposures at the CRESTA or county level will learn how CATRADER provides a reliable view of the risk. This session includes discussion on the importance of industry exposures and losses to improve decision making.

After a review of CATRADER's exposure module and data input capabilities, participants will learn how to set up various types of programs. Using those programs, attendees will learn how to run analyses and create loss reports. The impact of assumptions and the selection of program options on results will be explored. Practice exercises, complemented by hands-on support from teaching assistants, will enable attendees to run the most common types of analyses and immediately gauge their understanding. Reporting and data export capabilities will also be reviewed.

Program Overview *continued*

FINANCIAL MODELING OVERVIEW

Catastrophe models first estimate the cost of physical damage to property, then estimate insured losses under sometimes complex coverage terms. This unit will cover the process of translating losses to insured losses in the stochastic modeling framework, where each cost is actually a probability distribution of possible damages. Analysis options and the interpretation of uncertainty in modeled losses receive special attention.

INTERPRETING MODEL RESULTS

A solid grounding in probability and statistics, along with a working knowledge of data management is needed to properly interpret model results. This unit provides the foundation candidates need to deploy best practices in interpreting model results. Aggregation of risk across regions and perils, validation of model results against historical data, sensitivity analysis to changes in data and assumptions, and the actuarial principles associated with the risk metrics produced by models are all discussed. Finally, the proper use of real-time event sets from AIR's ALERT™ service is reviewed.

INTEGRATING MODELS INTO THE BUSINESS OF INSURANCE

Catastrophe risk analysis begins in the direct insurance environment. Insurers make myriad decisions regarding policy underwriting and pricing, product development, claim handling, risk transfer, and enterprise risk management, many of which may be better informed by using model results. This unit will survey and justify many uses of model output in various insurer functions. An example-based approach will help modelers understand what users of their work products should be doing with the analysis results, so that insightful reporting may facilitate better decisions about what risks to take, how much to charge, how to structure reinsurance protection, and what to do when an event threatens.

DETAILED PORTFOLIO ANALYSIS USING CLASIC/2

This largely hands-on unit will show how to use location-level catastrophe modeling to answer many common and critical business questions involving large loss scenarios, reinsurance design and pricing, direct rating plan design and validation, and marketing strategy. Techniques such as psuedo-policy aggregation, distributed and queued processing, review of exposure data structures using queries, optimizing exports and reporting using filtering and Company Loss Files, custom event sets, and notional portfolios will be utilized to solve practical examples of modeling problems.

ADVANCED MODELING USING CATRADER

This hands-on unit with AIR's flagship aggregate exposure analysis software application, for reinsurance and capital market solutions, will cover a variety of practical modeling challenges related to complex reinsurance structures. Features allowing users to properly account for different inuring structures and residual market assessments will be covered. Standard exposure data formats will be covered, including UNICEDE®, CLF™ and other formats. Best practices for working with this data will be provided. Attendees will also learn how to analyze industry loss warrants (ILW's) and various parametric structures. Special attention will be paid to catastrophe bonds. Portfolio analysis topics will be covered, including strategies for assessing the incremental impact of programs on portfolio results. Class exercises will present full fledged scenarios that test attendees by having them go through all steps of data import, entry of contract structures, selection of analysis options and result reporting.

Dates and Locations for 2009

The AIR Institute Catastrophe Modeling Certification Program will be offered at the following times and locations in 2009:

BOSTON	July 20-24 October 19-23
LONDON	August 10-14

The tuition for the Certification Program is $9,000 (nine thousand U.S. dollars) per candidate, payable by check or credit card at time of registration.

As seats in the Certification Program are limited and in high demand, cancellations are not accepted once a seat is reserved. However, a paid registration may be deferred to a later session or transferred to another professional from the same organization.

We look forward to your attendance and to your becoming an AIR Institute Certified Catastrophe Modeler!

REGISTRATION FORM

AIR Institute Catastrophe Modeling Certification Program

REGISTRATION FORM

COMPANY NAME: _____

COMPANY ADDRESS: _____

PRODUCT(s) LICENSED: _____

ATTENDEE NAME	PHONE NUMBER	E-MAIL	DATE of TRAINING SESSION

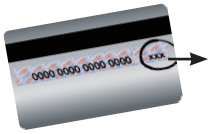
The registration fee is $9,000 per attendee.

PAYMENT INFORMATION:

_____

O Check Enclosed (Please make all checks payable in U.S. dollars to AIR Worldwide Corporation.)

O AMEX O VISA O MASTERCARD O DINER'S CLUB



Name on Card: _____

Card Number: _____ Expiration Date: _____

Security Code: _____

Billing Address: _____

Signature: _____

Payment is due upon registration. If you cannot attend the registered session, your payment will be applied to a future session. Please notify AIR of any changes to your registration status 45 days before the scheduled session start date.

Please send your completed form to:
AIR Worldwide
AIR Institute Training Registration
131 Dartmouth Street
Boston, MA 02116-5134

Or fax it with your credit card information to 617.267.8284.
Confirmation will be mailed or faxed to attendees with directions and hotel information.

AIR INSTITUTE