



Collective Proposed Standard Changes for ROA 2011

**PRESENTATION TO THE FLORIDA COMMISSION
ON HURRICANE LOSS PROJECTION METHODOLOGY
SEPTEMBER 21-22, 2011**



Reorganization of the Actuarial Standards

WHAT IS BEING PROPOSED?

- **Propose a reorganization of the existing standards, disclosures and audit items**
- **No content is removed**
- **Some content is moved into the Vulnerability Standards**

Current and Proposed Actuarial Standards

Existing Structure

- A-1: Modeled Loss Costs and Probable Maximum Loss Levels**
- A-2: Underwriting Assumptions**
- A-3: Loss Cost Projections and PML Levels**
- A-4: Demand Surge**
- A-5: User Inputs**
- A-6: Logical Relationship to Risk**
- A-7: Deductibles, Policy Limits, Coinsurance**
- A-8: Contents**
- A-9: Output Ranges**
- A-10: Probable Maximum Loss**

Proposed Structure

- A-1: Modeling Input Data**
- A-2: Event Definition**
- A-3: Modeled Loss Cost and Probable Maximum Loss Considerations**
- A-4: Policy Conditions**
- A-5: Coverages**
- A-6: Loss Output**

Rationale for Reorganization of the Actuarial Standards

WHAT IS BEING PROPOSED?

- **Propose a reorganization of the existing standards, disclosures and audit items**
- **No content is removed**
- **Some content is moved into the Vulnerability Standards**

WHY THE PROPOSED CHANGES?

- **To improve cohesiveness of the Actuarial Standards**
- **To streamline the audit process**
- **To follow a structure more closely aligned with workflow of using a catastrophe model: input, analysis, output**
- **To move vulnerability content to Vulnerability Standards (the standards, disclosures and/or audit items related to use of client exposure and claim data in development and validation of the vulnerability functions)**

Additions to the Vulnerability Standards

WHAT IS BEING PROPOSED?

- **Propose additional content from Actuarial Standards relating to development and validation of vulnerability curves**
- **No content is removed**

WHY THE PROPOSED CHANGES?

- **The ported content belongs in the Vulnerability Standards because it deals with how the model's vulnerability curves are developed and validated using insurance company claims and exposure data**
- **Reduces duplication of submission prep efforts between Vulnerability and Actuarial, potentially less room for things getting lost in translation**

Current and Proposed Vulnerability Standards

Existing Structure

- V-1: Derivation of Vulnerability Functions**
- V-2: Mitigation Measures**

Proposed Structure

- V-1: Derivation of Vulnerability Functions**
- V-2: Derivation of Contents and Time Element Vulnerability Functions**
- V-3: Mitigation Measures**

V-Forms Reference Structure

WHAT IS BEING PROPOSED?

- **A reference Condo Association Structure is proposed (replaces the Concrete Structure)**
 - Ten stories tall
 - Concrete construction
 - 4 apartment units per story
 - No shutters
 - Standard glass windows
 - Year built 1980
- **Modelers recommend the other reference structures remain as they are**
 - Currently may not represent a “median” structure in Florida, however a “median” structure will vary regionally: which one is correct?
 - Current reference structures provide an adequate means to accomplish the objective of the forms
 - Changing the reference structures to a median structure will cause Form V-2 to show debits and credits and may just lead to more confusion

Reorganization of the Computer Standards

WHAT IS BEING PROPOSED?

- **Propose a reorganization of the existing standards, disclosures and audit items**
- **No content is removed**

Current and Proposed Computer Standards

Existing Structure

- C-1: Documentation**
- C-2: Requirements**
- C-3: Model Architecture and Design**
- C-4: Implementation**
- C-5: Verification**
- C-6: Model Maintenance and Revision**
- C-7: Security**

Proposed Structure

- C-1: General Audit**
- C-2: Processes and Procedures (High Level Overviews)**
- C-3: Model and Software Development**
- C-4: Version-Specific Model and Software Revision**

Rationale Reorganization of the Computer Standards

WHAT IS BEING PROPOSED?

- **Propose a reorganization of the existing standards, disclosures and audit items**
- **No content is removed**

WHY THE PROPOSED CHANGES?

- **Proposed structure aligns with the flow of the audit process**
 - **Version-Specific Model and Software Revision Standard (Proposed C-1, C-2 and C-4) correspond with Paul's Phase I Audit**
 - **Model and Software Development Standard (Proposed C-1 through C-3) correspond with Paul's Phase II Audit**
- **Proposed structure facilitates cohesive documentation (example follows). Deltas are presented as a coherent unit, instead of distributed across multiple documents**
- **Implementation traceability: auditor can easily trace the implementation of existing and new features/components**
- **Documentation traceability: auditor can easily trace component/feature implementation to its discussion in the documentation**

Example of Audit Implementation Under Existing and Proposed Structures

EXAMPLE – Documentation Required to Audit AIR's Catalog Generation

Existing Structure

C-2: Catalog Generation Requirements – Purpose and content of the annual update

C-3: Hazard Model Framework – How hazard model uses scientific data to determine damage

C-4: Catalog Generation Code – Process for generating the catalog

C-4: Catalog Generation Data Files – Details about data files used

C-5: Catalog Generation Testing – Testing of functions used in source code

FIVE SEPARATE DOCUMENTS ARE GENERATED AND REVIEWED

Proposed Structure

Proposed C-3: Model and Software Development

- General requirements, purpose and content of the annual update
- How hazard model uses scientific data to determine damage
- Process for generating the catalog
- Details about data files used
- Testing functions used in source code

ONE DOCUMENT IS GENERATED AND REVIEWED