



Collective Proposed Computer Standard Changes for ROA 2011

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



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?

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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**

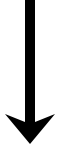
Current and Proposed – Change Driven Audit Procedure

Phase I – Change-Driven Audit Procedure

Standard G-1 List of Changes



C-1 Documentation



C-2 Requirements



C-3 Design



C-4 Implementation

Version-Specific Revision Standards C-1, C-2 and C-4

Standard G-1 List of Changes



Requirements



Design



Implementation & Verification



Quality Assurance

Current and Proposed – Comprehensive Audit Procedure

Phase II – Comprehensive Audit Procedure

Audit Item



C-1 Documentation



C-2 Requirements



C-3 Design



C-4 Implementation



C-5, C-6, C-7 Quality Assurance

Model and Software Revision Standards C-1, C-2 and C-3

Audit Item



Requirements



Design



Implementation & Verification



Quality Assurance

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