

**Professional Team Report
to the
Florida Commission on Hurricane Loss Projection Methodology
Review of the Third Re-Submission of the
Florida Public Hurricane Loss Model Version 4.1
July 11, 2011**

**Presented at Tallahassee, Florida
August 17 & 18, 2011**

PART 1 – INTRODUCTION

At its June 16, 2011 meeting, the Florida Commission on Hurricane Loss Projection Methodology (Commission) found the Florida Public Hurricane Loss Model Version 4.1 to be unacceptable for use in Florida due to the failure of the model regarding Standard G-5.

Standard G-5 states:

Standard G-5 Editorial Compliance

The submission and any revisions provided to the Commission throughout the review process shall be reviewed and edited by a person or persons with experience in reviewing technical documents who shall certify on Form G-7 that the submission has been personally reviewed.

Purpose: This standard requires that the modeling organization maintain a quality control process with regard to creating, maintaining, and reviewing all documentation associated with the model. Person(s) with experience in reviewing technical documents for grammatical correctness, typographical accuracy, and inaccurate citations, charts, or graphs must have reviewed the submission and certify that the submission is in compliance with the acceptability process.

Relevant Forms: G-1, General Standards Expert Certification
 G-2, Meteorological Standards Expert Certification
 G-3, Vulnerability Standards Expert Certification
 G-4, Actuarial Standards Expert Certification
 G-5, Statistical Standards Expert Certification
 G-6, Computer Standards Expert Certification
 G-7, Editorial Certification

The failure of the model for the referenced standard followed the findings of the Professional Team in its “Professional Team Report, 2009 Standards, Florida Public Hurricane Loss Model, Florida International University – On-Site Review, March 14-17, 2011 – Additional Verification Review, June 6 & 7, 2011” which contained the following:

Standard G-2: Expert Certification Forms are required upon completion of all editorial changes.

Standard G-5: Due to an excessive number of outstanding editorial issues, the Professional Team was unable to verify Standard G-5. Numerous editorial issues have been prevalent throughout the review process.

The signatory on the Expert Certification Form G-7: Editorial Certification certifies the following:

- 1) The model submission is in compliance with the Commission's Notification Requirements and General Standard G-5;
- 2) The disclosures and forms related to each standards section are editorially accurate and contain complete information and any changes that have been made to the submission during the review process have been reviewed for completeness, grammatical correctness, and typographical errors;
- 3) There are no incomplete responses, inaccurate citations, charts or graphs, or extraneous text or references;
- 4) The current version of the model submission has been reviewed for grammatical correctness, typographical errors, completeness, the exclusion of extraneous data/information and is otherwise acceptable for publication; and
- 5) In expressing my/our opinion I/we have not been influenced by any other party in order to bias or prejudice my/our opinion.

PART 2 – PROFESSIONAL TEAM REVIEW

Professional Team members involved throughout this process have been as follows:

Jenni Evans, Ph.D., Meteorologist
Paul Fishwick, Ph.D., Computer Scientist
Mark Johnson, Ph.D., Statistician, Team Leader
Greg McLellan, P.E., Structural Engineer (observer)
Martin M. Simons, MAAA, ACAS, FCA, Actuary
Masoud Zadeh, Ph.D., P.E., Structural Engineer
Donna Sirmons, Staff

At its June 16, 2011 meeting, the Commission questioned members of the Professional Team relative to our inability to verify the Editorial Compliance Standard. The Professional Team expressed its concerns relative to the extremely large number of mis-numbered pages, forms, tables, the lack of complete information in descriptions and formulas, and other typographical errors found during each of the Florida Public Hurricane Loss Model on-site visits. The Professional Team expressed its concern that due to the extraordinary amount of time spent in discovering, questioning,

and receiving multiple answers and corrections to these errors, that our audit time had suffered substantially.

Since this had been the second on-site visit (the model was not determined to be acceptable following its initial submission of November 2010), the Report of Activities does not provide for additional on-site visits.

The Commission received an appeal request from the Florida Public Hurricane Loss Model along with a third re-submission, with the errors corrected, for review. The modeler has stated that the use of special word-processing software led to the elimination of errors.

The inclusion of track changes from the initial submission fails to reveal the massive number of intermediate errors that were introduced and then withdrawn when additional materials brought in post-initial submission were dropped at the various stages of the process prior to this appeal submission.

The Chairman of the Commission requested that the Professional Team review the third re-submission from the Florida Public Hurricane Loss Model, dated July 11, 2011.

The Professional Team has determined the following items (some minor, and some of greater concern) in its review of the July 11, 2011 third re-submission of the Florida Public Hurricane Loss Model Version 4.1.

A. Overall

- 1) The third re-submission received with the appeal request to the Commission from the Florida Public Hurricane Loss Model included the information relative to the July 11, 2011 re-submission in electronic form (CD). Instead of the July 11, 2011 re-submission, however, the Commission was provided with additional hard copies of the previous June 8, 2011 re-submission due to an error attributed by the Florida Public Hurricane Loss Model to the FedEx printers. As was described at the Commission meeting, this is an example of an error that causes additional review time as the Professional Team eventually realizes that the hard copy and electronic form are not the same document. They are expected to be identical.
- 2) The Professional Team has noted that the deductible formulae that appear on pages 283 and 284 of the third re-submission have been changed from those that were presented to the Professional Team in March (with no change in June). These changes were not part of the original submission (November 15, 2010) or the initial re-submission (April 22, 2011). They were not part of the on-site review. The changes do not appear to be typographical changes, but rather a basic change in the way the impacts and effects of deductibles are calculated in the model under consideration. Therefore, the formulae on pages 283 and 284 of the third re-submission have neither been previously seen nor reviewed by the Professional Team.

Note: Whether it is determined that the changes in the third re-submission are due to errors in the submission document or in the formulae used in the model, this incident provides a prime example of the previously addressed concerns expressed by the Professional Team. The inclusion of such a change, with no acknowledgment by the

modeler that such a change has been made, makes extra work for the Professional Team members until we realize that we have not been informed of a change in the deductible formulae that have been presented to the Commission. This is anything but a typographical error.

- 3) There are instances where some material is deleted in red (correct color) and then the same material is inserted in blue (correct color), but there is no apparent change. Examples: Page 25 with (c, θ) ; Page 26 with $(\delta c, \delta \theta, \delta r)$ and δa ; Page 74 with high; Page 254 with ZIP.

Once again, these seemingly very minor errors cause each Professional Team member, in his or her review of the document, to spend time trying to determine what has changed and whether that change is in accord with what we have seen and been told for each instance.

B. Examples of Page Specific Typos, Omissions, etc.

- 1) Page 2. The submission date should be July 11, 2011.
- 2) Page 6. The Model Submission Checklist date should be July 11, 2011.
- 3) Page 25. “The storm speed and direction $(\delta \theta, \delta c)$ ~~$(\delta c, \delta \theta)$~~ ” should be “The storm speed and direction (c, θ) ~~$(\delta c, \delta \theta)$~~ ” or should refer to speed and direction changes.
- 4) Page 37. The original Table 1 in the November 15, 2010 submission has been replaced by a new Table 1, but the original Table 1, which should have been kept in and crossed out in red, is missing from the third re-submission.
- 5) Page 79. Bosart reference to *Montly Weather Review* instead of *Monthly Weather Review*.
- 6) Pages 131-133. Web site links should have been updated as several links are out of date and return error messages. “NOAA Coastal Services Center” should be in black with only the link in blue and underlined.
- 7) Page 211. In “The flow chart in Figure 42 summarizes,” 42 is in black and should be in blue and the old figure number of 37 should be given in red and crossed out.
- 8) Page 212. In “The flow chart in Figure 43 summarizes,” 43 is in black and should be in blue and the old figure number of 38 should be given in red and crossed out. Also, references to Figures 43 and 44 on page 213, Figures 49, 50, 51, and 52 on page 237, and other figures on pages 241-247 have the same issue.
- 9) Page 216. The same issue as above, but with regards to the reference to Table 14. The table references for Tables 15 through 26 from pages 216-222 and Table 28 on page 235 have the same issue. Further, there are typographical issues with the table titles and contents.
- 10) Page 298. Form A-2 title has not been updated from the 2008 Standards. The 2009 Standards title is Form A-2: Zero Deductible Personal Residential Loss Costs by ZIP Code.

- 11) Page 406. Figure 83 axes should be labeled.
- 12) Page 414. In the title of Table 35, the correction for years of simulation to 55,000 from 54,000 given in the original November 15, 2010 submission should be in track changes.
- 13) Pages 471-503. The Output Ranges footer “FPHLM V4.0 2010” should be “FPHLM V4.01
~~2010~~2011.”
- 14) Page 504. The footer on Form A-7 should be “FPHLM V4.01 ~~2010~~2011.”