



A Resource of the State of Florida

**HURRICANE LOSS REDUCTION
FOR
HOUSING IN FLORIDA**

**A Research Project Funded by
The State of Florida Department of Community Affairs
Through Contract # 04-RC-11-13-00-05-001**

**QUARTERLY REPORT No. 1
For Quarter Ended September 30, 2003**

**Reporting Requirement # 2
DUE BY October 15, 2003**

PREPARED BY
THE INTERNATIONAL HURRICANE RESEARCH CENTER
FLORIDA INTERNATIONAL UNIVERSITY

HURRICANE LOSS REDUCTION FOR HOUSING IN FLORIDA
A RESEARCH PROJECT UNDERTAKEN BY
THE INTERNATIONAL HURRICANE RESEARCH CENTER
At Florida International University

QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2003

SUMMARY

This report summarizes the activities of the International Hurricane Research Center (IHRC), at Florida International University (FIU), and its research team related to the project designated as *Hurricane Loss Reduction for Housing in Florida* (hereinafter Project) being funded by the Florida Department of Community Affairs (DCA) under contract # 04-RC-11-13-00-05-001 executed on November 12, 2003.

This quarterly report covers activities of the IHRC research team from July 1, 2003 through September 30, 2003. This quarterly report is submitted in compliance with Reporting Requirement #2 of above referenced contract. There are no problems or circumstances currently affecting the completion date, milestones, scope of work, and cost of the project.

Ricardo A. Alvarez, Deputy Director at the IHRC, is Principal Investigator (PI) and Project Director. Carolyn Robertson, Research Associate at the IHRC, is responsible for project coordination.

Major activities during the period covered by this report include:

1. During July 2003 the Final Report for Year 3 was written and submitted to the Department of Community Affairs by July 31, 2003 as required, and to all IHRC research team members and collaborators.
2. The Final Report was placed on CD's for mass distribution as well as posted on the web in PDF format. The reports can be accessed via the IHRC's Laboratory for Structural Mitigation at http://mitigation.fiu.edu/research/hlmp_year3.htm
3. The Flat Roof Instrumentation Project, a sub-task listed under the Hurricane Loss Reduction Devices and Techniques research track, was completed. Most of this installation had been completed by June 30, 2003, but due to circumstances beyond our control the lightning protection system and the anemometer could not be completed during the research period. This included the installation of an anemometer that would allow for highly accurate wind speed readings to be used as

a reference for the pressure readings from each of the sensors deployed on the specific flat roof. Collected data will be used in future analysis.

4. A Scope of Work for Year 2003/2004 and a generic budget were developed for and submitted to the Department of Community Affairs. This Scope of Work was approved by the HLMP Advisory Council at its meeting of September 2, 2003 in Tallahassee, and recommended for final approval by the DCA Secretary. As a pre-requisite for actual funding.
5. The project Principal Investigator and the Project Coordinator contacted each of the co-Principal Investigators and other researchers that will be involved in carrying out the proposed 2003-2004 research agenda to discuss the specific research tracks, the scope of work and timelines, the schedule of deliverables and budget estimates. All contractual and administrative steps to organize and secure the research team for this project had been completed by September 30, 2003 and were pending formal execution of the grant contract with DCA.
6. Ricardo Alvarez participated the (RCMP) HLMP Advisory Council meeting held September 2, 2003 in Tallahassee, Florida and made a presentation summarizing the research activities completed during 2003-2003, and also provided an overview of the research agenda to be undertaken by the IHRC Research Team during the 2003-2004 period.
7. Extensive work was dedicated to enhancing the dedicated web page (URL: <http://mitigation.fiu.edu>) where research findings, data, a photographic record and other project-related content and information will reside.
8. During the quarter the project Principal Investigator and IHRC staff continued engaging in a range of activities in support of the proposed Modification to the Florida Building Code. The proposed modification calls for the 8d ring-shank nail to become the standard roof-sheathing nail in the High Velocity Hurricane Zone of Florida. Research carried out by the IHRC Research Team during 2003-2003 has shown the ring-shank nail improves the performance of a roof under hurricane uplift loads by a factor of up to 130% without increasing the cost of construction.
9. The IHRC Team supported several outreach and educational activities designed to highlight the RCMP and specific research findings. Some of these activities included interviews with the media (both printed media and TV) and demonstration of various research tests related to RCMP work for these media representatives and for the National Geographic Society for potential inclusion in a documentary to be titled "Built for Destruction" to be aired some time in 2004. Other outreach activities used to showcase RCMP research initiatives and findings were a meeting of the Miami-Dade County Local Mitigation Strategy (LMS) group, and a workshop for K12 teachers hosted by the IHRC in July 2003.

10. As of September 30, 2003 the grant contract had not yet been received by the IHRC/FIU for review and execution.

ORGANIZATIONAL/ADMINISTRATIVE ACTIVITIES

During this quarter, the initial research team for 2003-2004 was assembled at both the IHRC and participating universities. The assembled research team is as follows:

| | | |
|--------------------------------|-------------------|----------|
| Principal Investigator: | Ricardo Alvarez | FIU/IHRC |
| Project Coordinator: | Carolyn Robertson | FIU/IHRC |

Principal Researchers:

| | | |
|-------------------|---------|---|
| Ronald Baier | FIU | Construction Management |
| Jason Chandler | FIU | Architecture |
| Nicole Dash | UNT | Sociology |
| Hugh Gladwin | FIU | IPOR |
| Alfredo Ravinet | FIU | HCET |
| Timothy Reinhold | Clemson | Civil Engineering |
| James Rivers | FIU | IHRC |
| Walt Peacock | TAMU | Landscape Architecture & Urban Planning |
| Edgar Polo | FIU | HCET |
| Stephen Schreiber | USF | Architecture |

Research Assistants:

| | | |
|------------------------|-----|------------------|
| Michael Olivero | FIU | Computer Science |
| Goldia Robinson-Taylor | FIU | Education |
| Brian Saponaro | FIU | Architecture |
| Zusana Havlacoca | FIU | IHC |

Undergraduate Students:

| | | |
|--------------|---------|-------------------|
| Victor Camps | FIU | Architecture |
| Jon Lamb | Clemson | Civil Engineering |
| Brie Losego | FIU | Architecture |

*** Other research assistants will include a minimum of 15 graduate and under graduate students located at four universities.**

Support Staff:

| | | |
|----------------|-----|------|
| Maria Cano | FIU | IHRC |
| Scott Caput | FIU | IHRC |
| Regnier Jurado | FIU | IHRC |