

**BOARD OF GOVERNORS
STATE UNIVERSITY SYSTEM OF FLORIDA
August 7, 2008**

SUBJECT: Centers of Excellence

PROPOSED BOARD ACTION

Ratify Legislatively Designated Centers of Excellence

AUTHORITY FOR BOARD OF GOVERNORS ACTION

Section 7(d), Art. IX, Florida Constitution
1004.226 FS

BACKGROUND INFORMATION

Subsequent to its review of 41 proposals, the Florida Technology, Research, and Scholarship Board recommended seven proposals to the Board of Governors on April 16, 2008 for Center of Excellence funding. Two of these entities, the FIU Center for Hurricane Damage Mitigation and Product Development, and the FSU Center for Advanced Aero-Propulsion were designated as Centers of Excellence by the 2008 Florida Legislature and funded from the 2007-08 Center of Excellence appropriation.

The proposed Board of Governors action is to ratify the legislative designation. This will clarify each of the entity's formal status and obligation to report on its activities via the Centers of Excellence Annual Report.

Summaries of the FIU Center for Hurricane Damage Mitigation and Product Development, and the FSU Center for Advanced Aero-Propulsion are included.

Supporting Documentation Included: Summaries, FIU Center for Hurricane Damage Mitigation and Product Development, and FSU Center for Advanced Aero-Propulsion

Facilitators/Presenters: Governor Ann Duncan, R.E. LeMon

**Florida International University
Center of Excellence for Hurricane Damage Mitigation & Product Development**

HDMPD envisions become the leader in educating, researching, and commercializing hurricane mitigation technologies vital to Florida’s economic health. HDMPD will develop full-scale, first-of-its-kind structural testing to determine inherent weaknesses of structures when subjected to hurricane-force winds and rain. This will revolutionize building construction and change standards for building practices.

The HDMPD will be built on the sustained investment and highly productive core of the International Hurricane Research Center, established by the Legislature in 1995. The Center of Excellence funding will advance the existing Wall of Wind facility by doubling fans to produce categories 1 to 5 hurricane-force wind, rain, and debris; and by acquiring the measurement instrumentation necessary for quantitative research.

HDMPD will lead to the development of a “culture of preparedness”—a change in public behavior that must occur in the State of Florida for our economy to remain sustainable. Just as the effective visualization of car crashes drastically changed automobile safety through the introduction of air bags and other safety features, HDMPD will do the same for the housing industry. This fundamental change is a necessary condition for available and affordable insurance in Florida, which is paramount to sustain the State’s economy.



Figure 1. RenaissanceRe 6-fan Wall of Wind and new 8,000 sq ft facility, which will house the testing apparatus, control room and state-of-the-art, industry-partnered AIR Worldwide turntable.

Florida State University Center of Excellence for Advanced Aero-Propulsion

Although the impact of the aerospace industry on its economy is approximately \$100 billion, Florida's leadership role in the aerospace industry is severely threatened. A dramatic shift is anticipated in the design of the next generation of aircraft and space vehicles that will ultimately replace current, aging commercial and military aircraft as well as the space shuttle fleet, scheduled for retirement in 2010. The proposed Florida Center for Advanced Aero-Propulsion (FCAAP) will be a technical and academic focal point for Florida's Aerospace Industry and will help ensure that Florida's role in the aviation and aerospace industry is significantly enhanced.

Researchers at FSU, UF, UCF, and Embry Riddle Aeronautical University will collaborate to leverage directly existing resources for the growth and prosperity of Florida's Aerospace Industry. FCAAP will be a technical incubator and will facilitate rapid transfer of knowledge to applications and products through partnerships with industry, government, and other stakeholders in Florida.

FCAAP will facilitate this process by pooling and leveraging resources in a team-oriented approach to focus on aerodynamics and acoustics, propulsion systems, power generation, and alternative aviation fuels. Another significant outcome of FCAAP will be the training of highly-skilled professionals in the aerospace and related fields to replace retiring workers.

