June 14, 2010

Department of Homeland Security

U.S. Citizenship and Immigration Services

Texas Service Center

Re: I-140, Immigrant Petition for Alien Worker, filed on behalf of Roy Liu-Marques, as a Professional Holding an Advanced Degree or of Exceptional Ability in the National Interest

To Whom It May Concern,

I am writing this letter in support of Roy Liu-Marques’ petition for United States permanent residence based on contributions to the field of wind engineering and hurricane research.

By way of introduction, I am Carolyn Robertson,

[DESCRIPTION OF WRITER’S PROFESSIONAL BACKGROUND AND DETAIL REGARDING EXPERIENCE, PROFESSIONAL MEMBERSHIPS IN COMMITTEES, SERVING ON PANELS, EDITOR/CO-EDITOR OF JOURNALS, # OF PUBLICATIONS, PRESENTATIONS, LECTURES, ETC.]

Please see the attached copy of my bio-sketch for more details.

I met Roy while he worked as a Research Assistant for the International Hurricane Research Center (IHRC), one of the leading centers for hurricane research and damage mitigation. During his graduate studies he became familiar with the Wall of Wind initiative lead by the IHRC. His first contact with the full-scale hurricane simulator was with the 2-fan portable system that served as a base for the development of the 6-fan RenaissanceRe Wall of Wind (RenRe WoW). His Master’s Thesis involved the study and improvement of the wind field generated by the Wall of Wind and test different devices and techniques to manage the flow and recreate hurricane characteristics accurately. After several tests with small-scale models and the full-scale WoW, he was able to find a configuration that allowed the apparatus to simulate hurricane conditions accurately.

Being a former Associate Director for the IHRC, allowed me to interact and collaborate with Mr. Liu-Marques while carrying out the research activities at IHRC. The experience acquired by Roy while assisting on the development of the 6-fan Wall of Wind is a valuable asset for IHRC in developing and commissioning a new 12-fan hurricane simulator system that will come to complement the existing 2-fan and 6-fan systems. It is uncommon to find professional with the required expertise and skills to support a task of this magnitude.

Mr. Liu-Marques was able to work with a visiting post-doctoral scholar from Tong Ji University (China) and with the combined efforts presented their findings at the 4th International Conference on Advances in Wind and Structures (AWAS’08). Also a peer-reviewed paper was published on Wind and Structures Journal.

He has shown interest in the field of hurricane research and by has proven his dedication and enthusiasm to contribute on wind-induced damage mitigation. The IHRC presented him with the opportunity to join the wind engineering team as a Research Scientist for the LWER. This role has let him apply his wind engineering expertise on day-to-day operation at the Laboratory, but especially in the preparation and instrumentation of test specimens and operating the revolutionary Wall of Wind. He also applies his data acquisition knowledge to prepare the tests for accurate sampling of information from wind loading tests on structures and its interpretation. His experience has been useful in performing tests for State and Federal agencies (Florida Department of Community Affairs (FL DCA), Florida Department of Emergency Management, National Science Foundation) and private sector companies.

To complement his laboratory skills, Mr. Liu-Marques has been able to make field experiments under hurricane conditions, by participating and coordinating FIU’s collaboration with the Florida Coastal Monitoring Program (FCMP). This program funded by the FL DCA and supported by a grant from the National Oceanic and Atmospheric Administration (NOAA) through the Florida Hurricane Alliance, takes portable weather towers to locations nearby landfall sites of tropical cyclones along the United States coastline. The towers collect meteorological information about the storm and make it available real-time to scientists at the National Hurricane Center, emergency managers and wind engineering community. Mr. Liu-Marques coordinated FIU’s efforts on the Florida Hurricane Alliance Round 3 on Surface Wind Measurements, which is a multi-university program sponsored by the and managed by IHRC.

I truly believe that Mr. Liu-Marques should be a great benefit for the U.S. hurricane research and damage mitigation efforts due to his unique knowledge and experience that clearly sets him apart from others in his field. His contributions in the area of wind engineering and hurricane research will definitely help the American people and international community prepare and survive natural hazards like hurricanes. He is an outstanding young research scientist and I recommend him for permanent residency.

Please do not hesitate to contact me should you require further information.

Sincerely,

Carolyn Robertson

[COMPANY/INSTITUTION]

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