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Statement of Interest, WAS*IS Summer 2007

As a research scientist, I approach tropical cyclones from a very analytical point of view. I work with computer programs and data from models and satellites to develop and improve algorithms meant to help hurricane specialists make their forecasts. I play a very specialized role in a complex chain of events that involve not just researchers and forecasters, but also emergency managers, media personnel, city planners and most importantly the public. It can be difficult to connect the work that I do to the latter steps of the chain, yet without this connection it's far too easy to see hurricanes as interesting atmospheric phenomena and little more. On the research end of the chain, we must constantly remind ourselves that without the societal impacts of tropical cyclones, there would be no purpose in studying them. For me personally, it was the human element of this problem that drew me to the field in the first place. Furthermore, it is what keeps me working hard every day.

I came to CSU to study hurricanes because they scare me to the core. I have spent almost half of my life living near the Florida coast, where much of my family still lives. Through the years, I've had grandparents living in mobile homes in high-risk areas such as the Florida Keys and along the SW coast. Their mentality, like many others in these areas, is that they will not evacuate. This attitude both perplexes and intrigues me. At one time, this stubborn conviction convinced me that the only way to minimize the risk to human life was to improve tropical cyclone prediction. Shortly after entering the field of hurricane research, I came to understand that minimizing the economic, societal and environmental impacts of hurricane landfalls has as much to do with changing how cities are built, how information is communicated to emergency managers and the public, and the level of trust people have in the forecast and warning communities as it does with improving meteorological prediction. In the end our ability to minimize these threats will compare to the strength of a chain, with the weakest link determining the strength of the entire system.

I recently attended the 61st Interdepartmental Hurricane Conference in New Orleans, Louisiana. This meeting was a wonderful opportunity for me to speak directly with the forecasters and military officials that use the Tropical Cyclone Formation Probability product I am currently working on. It brought to light many applications of this product that I had not considered. For example, I had one U.S. Navy commander explain how important tropical cyclone genesis forecasts are along the eastern coast of China, as there are very few ports at which U.S. military ships are permitted to stop along that region. I had never considered this application, and thus had not considered the needs of the U.S. Navy in determining the domain structure of the product. After months of working independently on this project, I was amazed at how little perspective I really had on what I was doing. I hope to never again lose sight of the "big picture" of what I do and why I do it, and to ensure this I am determined to pursue interdisciplinary opportunities as often as possible.

I was very excited to learn about the WAS*IS workshop. Its goals embody what I hope to achieve in my career as an atmospheric scientist. I believe that the perspective I can bring from my own experiences and struggles as a scientist trying to connect to a social science problem will be an asset to the workshop. I am also an eager and willing ambassador of the relationship between weather and society, and would love to bring any gained perspective back to my own workplace. I appreciate your time and consideration and hope that I will have the opportunity to participate in the WAS*IS workshop.