

## **IMPACTS OF WARNINGS ON LOSS OF LIFE AND PROPERTY FROM METEOROLOGICAL EVENTS - TRENDS AND FUTURE PROSPECTS**

by

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### **ABSTRACT**

Loss of life from lightning, tornadoes and tropical cyclones has decreased markedly in the United States during the past few decades not with standing the increasing populations at risk. This accomplishment is primarily attributed to improved preparedness efforts through education of the population at risk on how to respond to warnings for hazardous meteorological conditions, excellent communications systems and the advancements in the science of meteorology which permits more accurate and timely warnings. However, during this same period, the loss of property from tropical cyclones and tornadoes has increased markedly, reflecting the fact that more people and property are in harms way than ever before. In addition, only a fortuitous period of more than two decades of reduced strong tropical cyclone activity kept losses from growing at an even higher rate. Recent research indicates that that period of reduced activity may be ending.

During the lull in major tropical cyclone activity in the United States, there was a major flux of people to the Gulf and East coasts of the United States. This rate of increase of people and property at risk to tropical cyclones has taken place at a much higher rate than improvements in our ability to accurately forecast where and how strong tropical cyclones will be when they strike a given community. The result is that there now exists the potential for large loss of life from a single tropical cyclone event where adequate warnings may not be possible in several coastal areas of the United States.

Although this paper focuses on the tropical cyclone threat, many of the factors discussed and the mitigation activities suggested are equally applicable to other natural hazards such as earthquakes, floods, and to some degree tornadoes