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NATURAL DISASTER REDUCTION: WARNING SYSTEMS

Technical session

Addendum

Impacts of warnings on loss of life and property caused by  
meteorological events: trends and future prospects

Summary of presentation by Dr. Robert C. Sheets, Director,  
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1. Loss of life from lightning, tornadoes and tropical cyclones has decreased markedly in the United States of America during the past few decades, notwithstanding the increasing populations at risk. This accomplishment is primarily attributed to improved preparedness efforts through the education of the population at risk on how to respond to warnings for hazardous meteorological conditions, excellent communications systems and the advancements made in the science of meteorology which permit more accurate and timely warnings. During the same period, however, the loss of property from tropical cyclones and tornadoes has increased markedly because more people and property are at risk than ever before. Only a fortuitous period of more than two decades of reduced strong tropical cyclone activity has kept losses from growing at even a high rate. Recent research indicates that that period of reduced activity may be ending.

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

3. Although the presentation is focused 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.

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