

Weather extremes the new normal

By JACK HAYES

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During these last 12 tumultuous months we've experienced more than 1,000 weather-related fatalities, more than 8,000 injuries and at least 12 — a record for a single year — separate disasters with economic losses greater than

GUEST COLUMN \$1 billion.

Numbers like these have served as a wakeup call, a jolting realization that our society is increasingly

vulnerable to the weather as a result of a growing population and sophisticated infrastructure that continues to expand.

And while we witnessed an unmatched succession of extremes in nearly every weather category this year, climate scientists have pointed to the likelihood that such extremes are not an anomaly but may be the new normal.

This doesn't mean we wave the white flag and bow to nature's whims. It means now is the time to take bold steps to build a weather-ready nation: one in which the public understands the threat of weather; communities prepare in advance; timely and credible warnings are issued; and people take prompt, effective action. The result: fewer deaths and economic losses from severe weather.

Our call to become weather-ready resonates with an invaluable network of partners in emergency management and the commercial weather enterprise who help identify, prioritize, and set in motion actions to improve the nation's resiliency against severe weather. But a truly weather-ready nation requires that our entire society improve

the way it responds when extreme weather threatens.

As a part of this effort, NOAA's National Weather Service is will work to increase weather awareness through continued investment in research and technology to enhance the nation's ability to monitor our world and predict its near-term changes and longer-term evolution. This includes deploying new radar advancements and securing the latest satellite technology.

Awareness also requires the integration of two different, yet complimentary, disciplines: environmental science and social science. Combined we can ensure the forecast and climate information critical to personal safety and economic vitality are fully understood and applied effectively.

Greater awareness will breed greater preparedness. With reliable weather and climate predictions spanning timescales of hours to years, sound decisions can be made. From prepared residents taking safe shelter more than a half hour before a tornado tears through a community, to farmers ready to adjust the schedule for planting crops, to business owners armed with information to improve existing revenue streams and even create new ones.

The bottom line is more lives and livelihoods will be saved.

We must make 2012 a less destructive and deadly year by becoming a more weather-ready nation through awareness, preparedness and action. Let's hope for the best, but have a plan for the worst.

Jack Hayes is the director of NOAA's National Weather Service.