



## Let's Mitigate Disasters!



Disasters are infrequent, expensive and deadly.

Mitigation is to take measures to avoid the undesirable effects in a humane and cost-effective manner.

Disasters can be natural, like

**floods,**

or man-made like,

or like

**earthquakes** or

**terrorism**

**cyber**

When timely, accurate and effectively delivered alerts are provided, this can be lifesaving and affordable. For example, comparing American Samoa and Samoa tsunami in 2009, or the Indian Ocean 2004 and Japanese 2011 earthquake and tsunamis, very many lives are saved by alerting.

Alerts can be delivered by radio, TV cellphone and internet. However as broadcasting is currently unable to be selective in the delivery, this is solved with a patent granted last year. This is not just a technology, but a set of solutions that are documented in over 500 pages. FEMA is responsible for the IPAWS Program (Integrated Public Alert and Warning System, includes WEA to cellphones and EAS on radio and TV).

*On July 21, at 2:00 PM EST on [Brighttalk](#) a presentation will be made on this. Also some further information is available at [EAS-webpage](#). It is likely that FEMA will soon be able to move forward on this, as legislation is progressing through Congress. It also depends on various parties cooperating for this to be effective. This did not happen in Haiti, and is not certain at present in Nepal. The most effective delivery device is the consumer electronics that people carry or have nearby. For suitable devices, the added cost is about 2c for added memory. Consumer electronics manufacturers respond to consumer needs, and government mandates are not desirable. FEMA however has been supporting the development of improved Emergency Management technologies that are suitable for worldwide use. Himalayan earthquakes can well exceed 8.0, perhaps reaching 9.0. [Casualties](#) may exceed 200,000 and be up to 1 million. Google "Himalayan earthquake casualty estimates". A reduction of fatalities by 70% appears practical to achieve.*