A RESOLUTION of the
INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
Adopted by the IUGG Bureau 10 January 2005

Whereas, A magnitude 9 great earthquake that occurred on 26 December 2004 off the west coast of northern Sumatra, South Asia, triggered tsunamis that inundated the coastal zones around the Indian Ocean resulting in tragic and historic loss of life and property;

The International Union of Geodesy and Geophysics (IUGG)

Recognizing, That tsunami warning systems in the Pacific Ocean have proved to be effective over several decades; and

Noting, That existing technology such as Synthetic Aperture Radar Interferometry (InSAR) observations for topography, real-time monitoring of marine activity, satellite observations from space, and natural hazard prediction models (e.g., tsunami propagation models) could prevent loss of life if predictions were timely and warnings were heeded; and
2. That the economic impact of natural disasters exceeds the cost of mitigation; and
3. That in the aftermath of a natural disaster, existing technology could provide rescue agencies and civil defense managers immediate quantitative estimates of the extent and severity of the disaster; and
4. That the reduction of predictive uncertainty is the most important scientific agenda in natural hazards reduction;

Recommends, That systems and procedures be prescribed for early warning, public awareness, regional evacuation routes and shelters based on charts of natural hazards, vulnerability, and risk assessments; and
2. That regional disaster management centers be established where they do not now exist to catalog information on the population and infrastructure at risk, and to monitor land, ocean and atmosphere in relation to all kinds of natural hazards; and
3. That regional tsunami warning systems be set up in order to generate and disseminate timely and accurate information needed by decision makers and the public; and
4. That multidisciplinary and multinational research programs and research networks on geophysical hazards and risks be developed to integrate diverse data streams, to improve understanding of the natural phenomena associated with the disasters, and to develop predictive modeling capability; and

Resolves, To promote the development and application of scientific expertise and experience in modeling and visualization of physical, technological, biological and social processes and their implications to the mitigation of natural disasters; and
2. To share this critical information to the greatest extent possible with government officials, emergency planners, the insurance industry, policy makers, and the public.