

NARL Synergy of Disaster Reduction Technology

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ABSTRACT

Climate change has been developed into a global issue, it is not just a single country or region can handle, instead, a global thinking and planning should be taken in the course of trying to cope with it. Under these circumstances, interoperability is very crucial for global collaboration on information sharing and data exchange. For this need, The Global Earth Observation (GEO) organization, by utilizing the interoperability, intended to facilitate and integrate the global efforts to natural disaster management and the sustainable development of the world.

Established in June 2003, the National Applied Research Laboratories (NARL) has combined 11 national laboratories into an independent non-profit institute. The establishment of NARL creates a new era in the development of national laboratories in Taiwan. The research areas of NARL are the critical technologies foreseen by the nation. Among these areas, research fields associated with environment monitoring and disaster management have been in priority list, such as Formosat-2 satellite remote sensing, airborne image instrumentation technology, cloud computing and 3D visualization, typhoon and flood modeling, ocean current and tsunami simulation, earthquake engineering, and disaster management technologies. Based on the technologies, NARL has developed research and service platforms such as 3D GIS Taiwan platform, atmospheric and hydrological integrated platform, Taiwan Earthquake Loss Estimate System, and disaster reduction service platform. NARL will take its advantage of synergy on environmental and disaster reduction capabilities to support government's mission on disaster management as well as to involve the international GEO related activities. In this paper, we will present the accomplishment of NARL's efforts to disaster management in Taiwan and contributions to the sustainable development of the world.

