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21st Anniversary of the Disaster Charter: History, Status and Future of this Powerful and Productive International Cooperation (6)

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INNOVATIVE SOLUTIONS TO RISK REDUCTION AND RESILIENCE - NASA'S DISASTERS PROGRAM AND THE INTERNATIONAL CHARTER

Abstract

The International Charter “Space and Major Disasters” has been a vital initiative for 20 years, enabling access to a broad variety of Earth observations for situational awareness when disasters strike. Relevant information can inform choices, support decisions and guide actions. An effective combination of information in the right hands at the right time can therefore mobilize capacities to minimize the threats to life, property, infrastructure and livelihoods from natural hazards such as hurricanes, earthquakes, landslides, tsunamis, flooding as well as from human action or inaction. Remote-sensing satellite imagery and data made available in a timely fashion can provide coverage at intervals, resolution or frequencies that are able to reveal the scope and severity of disasters, which aid emergency operations. NASA celebrates the accomplishments of the Charter collaboration and the substantive role of innovative science and science-informed information toward disaster reduction. If prior to disaster events the understanding, applications, and capacity exist to develop resilience through mitigation, early action, and planning, the Charter can best aid rapid response and recovery. Over the years, NASA’s international Earth-related science program and earth systems science approach have provided complementary benefits with the aerospace community for the public good. The Charter was born during the era of the Hyogo Framework that advocated for collaboration for early warning and disaster management. Since 2015, the Sendai Framework pivoted the nature of collaboration to a broader community that targets multihazard and systemic risk reduction before, during and after events. This shift repositions the role of the Charter in the timeline of action and reaffirms NASA’s systems view. NASA Disasters Program enables a whole community approach that integrates hazard understanding while addressing vulnerability, exposure and coping capacity for sustainability. This talk will explore NASA’s evolving perspectives on the Charter and earth observation science for disaster risk prevention including opportunities for early action and humanitarian relief and sustainable resilience as well as rapid restoration and lasting recovery. Specific case studies highlight the NASA Disasters Program and Charter activations to assist communities at intensive risk. Specific examples demonstrate how open science and increased data access, use and utility are improving disaster risk reduction in conjunction with Charter activations. NASA Disasters Program collaborates to provide value-added geospatial support, hosting and linking with portals for knowledge sharing, visualization and analyses, harnessing new technologies and creating partnerships across the natural science and socio-economic sectors.