WaterNet: The NASA Water Cycle Solutions Network

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Water is essential to life and directly impacts and constrains society's welfare, progress, and sustainable growth, and is continuously being transformed by climate change, erosion, pollution, and engineering practices. The water cycle is a critical resource for industry, agriculture, natural ecosystems, fisheries, aquaculture, hydroelectric power, recreation, and water supply, and is central to drought, flood, transportation–aviation, and disease hazards. It is therefore a national priority to use advancements in scientific observations and knowledge to develop solutions to the water challenges faced by society. NASA's unique role is to use its view from space to improve water and energy cycle monitoring and prediction. NASA has collected substantial water cycle information and knowledge that must be transitioned to develop solutions for all twelve National Priority Application (NPA) areas. NASA cannot achieve this goal alone—it must establish collaborations and interoperability with existing networks and nodes of research organizations, operational agencies, science communities, and private industry. Therefore, WaterNet: The NASA Water Cycle Solutions Network goal is to improve and optimize the sustained ability of water cycle researchers, stakeholders, organizations and networks to interact, identify, harness, and extend NASA research results to augment decision support tools and meet national needs. WaterNet is a catalyst for discovery and sharing of creative solutions to water problems. It serves as a creative, discovery process that is the entry–path for a research–to–solutions systems engineering NASA framework, with the end result to ultimately improve decision support.

UR: http://www.crew.iges.org/research/waternet
DE: 1878 Water/energy interactions (0495)
DE: 6929 Ionospheric physics (1240, 2400)
SC: Hydrology [H]
MN: 2007 Fall Meeting