SENSOR NETWORKS


DATA TECHNOLOGIES


HPWREN, High Performance Wireless Research and Education Network (see also ROADNet), http://hpwren.ucsd.edu/.


NetCDF, network Common Data Form, http://www.unidata.ucar.edu/packages/netcdf/


ROADNet, Real-time Observatories, Applications, and Data management Network (see also HPWREN), http://roadnet.ucsd.edu/index.html.


SCALABLE INFORMATION NETWORKS FOR THE ENVIRONMENT


WORKSHOP AGENDA
San Diego Supercomputer Center
October 29-31, 2001 (Writing Day = November 1)

PowerPoint versions of these presentations are available at:

October 29
Keynote by M. Cavanaugh (NSF) and Sensor Networks
7:00 - 8:00 Shuttles to SDSC from the Radisson Hotel
7:30 - 8:00 Breakfast Buffet at SDSC

8:00 - 8:30 Alison Withey (SDSC) - Workshop background and objectives.
Fran Berman (SDSC) - Welcoming address.

8:30 - 9:00 Margaret Cavanaugh (NSF) - Environmental Cyberinfrastructure: turning data into knowledge.

9:00 - 9:30 Deborah Estrin (UCLA) - Next century challenges: scalable coordination in sensor networks.

9:30 - 10:00 Gregory Bonito (LTER) - In situ environmental sensor technologies.

10:00 - 10:30 Coffee Break

10:30 - 11:00 Doug Goodin (Kansas State U.) - Environmental remote sensing technologies.

11:00 - 11:30 Dave Hughes (Old Colorado City Communications) - Wireless environmental science.

11:30 - 12:00 Kenneth Johnson (MBARI) - Marine/aquatic sensor arrays.

12:00 - 12:30 Frank Vernon (Scripps Institution of Oceanography) - Wireless networks and sensor connectivity: HPWREN.

12:30 - 1:15 Lunch (catered)

1:15 - 1:30 William Michener (LTER) - Announcements and charge for the breakout sessions.

1:30 - 3:30 Concurrent Breakout Sessions
Theme 1: Design and implementation of aquatic and marine sensor networks. (Facilitator, Orcutt; Reporter, Helly)
Theme 2: Design and implementation of terrestrial sensor networks.  
(Facilitator, Waide; Reporter, J. Porter)
Theme 3: Sensor technologies. (Facilitator, Goodin; Reporter, Bonito)

3:30 - 4:00 Coffee Break

4:00 - 5:30 Reports from Breakout Sessions
(20 minute presentation by breakout session facilitator/10 minute discussion each)

6:00 - 7:30 Reception at the Radisson Hotel [sponsored by Cal-(IT)]

October 30 Data Technologies
7:00 - 8:00 Shuttles to SDSC from the Radisson Hotel
7:30 - 8:15 Breakfast Buffet at SDSC

8:15 - 8:30 Alison Withey (SDSC) - Announcements.

8:30 - 9:00 Cherri Pancake (Oregon State) - Enabling technologies and user requirements for data and information management and delivery.

9:00 - 9:30 John Porter (UVA) - Information systems for ecological research.

9:30 - 10:00 Robert Peet (UNC) - Taxonomic plot and specimen databases.

10:00 - 10:30 Coffee Break

10:30 - 11:00 Jim Beach (KU-BRC) - Biodiversity data retrieval and integration.

11:00 - 11:30 Matt Jones (UC - Santa Barbara) - Data integration, analysis, and synthesis.

11:30 - 12:00 Jim Quinn (UC Davis) - Technologies for integration and discovery of geospatial data.

12:00 - 12:30 Mike Bailey (SDSC) - Scientific data visualization.

12:30 - 1:15 Lunch (catered)

1:15 - 1:30 William Michener (LTER) - Announcements and charge for the breakout sessions.

1:30 - 3:30 Concurrent Breakout Sessions
Theme 1: Geospatial data integration.
(Facilitator, Quinn; Reporter, Stocks)
Theme 2: Distributed data access and retrieval.
(Facilitator, Beach; Reporter, Ludaescher)
Theme 3: Interfaces, portals, and knowledge environments.
(Facilitator, Pancake; Reporter, Jones)

3:30 - 4:00 Coffee Break
4:00 - 5:30  **Reports from Breakout Sessions**  
(20 minute presentation by breakout session facilitator/10 minute discussion each)

**October 31**  
**Scalable Information Networks for the Environment**  
7:00 - 8:00  Shuttles to SDSC from the Radisson Hotel  
7:30 - 8:15  Breakfast Buffet at SDSC

8:15 - 8:30  **Alison Withey (SDSC)** - Announcements.

8:30 - 9:00  **William Michener (LTER)** - Environmental information networks: the field station reality.

9:00 - 9:30  **Geoff Bowker (UCSD)** - Scaling environmental information networks: the human dimension.

9:30 - 10:00  **Warren Cohen (USDA Forest Service)** - Integration across scales: the role of remote sensing and models.

10:00 - 10:30  Coffee Break

10:30 - 11:00  **Raymond McCord (Oak Ridge National Laboratory)** - Regional databases and archives.

11:00 - 11:30  **Terry Smith (UCSB)** - Digital Libraries: conceptual & technical framework.

11:30 - 12:00  **Phil Papadopoulos (SDSC)** - Scalable computational infrastructure: workstations, clusters, grid computing.

12:00 - 12:30  **Chaitan Baru (SDSC)** - Data and knowledge-based grids.

12:30 - 1:15  Lunch (catered)

1:15 - 1:30  **William Michener (LTER)** - Announcements and charge for the breakout sessions.

1:30 - 3:30  **Concurrent Breakout Sessions**  
Theme 1: Environmental networks: site to regional scaling.  
(Chair-Facilitators, Gage & Gosz; Reporter, Michener)  
Theme 2: Environmental networks: regional to continental scaling.  
(Facilitator, Baru; Reporter, Papadopoulos)  
Theme 3: Data sharing, IPR, and human dimension issues.  
(Facilitator, Uhlir; Reporter, Vande Castle)

3:30 - 4:00  Coffee Break

4:00 - 5:30  **Reports from Breakout Sessions**  
(20 minute presentation by breakout session facilitator/10 minute discussion each)

**November 1**  
**Writing day for breakout session Reporters and Facilitators**
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