AGENDA
A MARGINS Education and Planning Workshop
DEVELOPING A COMMUNITY SEDIMENT MODEL

February 19th - 22nd, 2002, Boulder, CO

(v. 2/14/02)

Preamble

The goal of this workshop is to develop both the concept of a "Community Sediment Model" (CSM) and a plan for its creation. At its most basic, a CSM may be defined as a community-built and freely available suite of integrated, ever-improving software modules predicting sedimentary basin and landscape evolution over a broad range of time and space scales. Our workshop will be a success if we can develop a compelling science plan to make a CSM a reality.

Tuesday - February 19th

Location: Broker Inn - Ballroom

Time	*Topic*
1830	Registration & Ice Breaker

Wednesday - February 20th

Location: INSTAAR - RL1 Rm 269

What is a CSM?

0800	**Registration**
0830	**Introduction and Goals**
0900	**Analog I: River Tools--from Concept to Commercial Success** Scott D. Peckham, Research Scientist, INSTAAR
0945	**Analog II: Glaciological Models** Shawn Marshall, Department of Geography, University of Calgary
1030	**Group Discussion/*Break***
1100	**Analog III: Community Climate System Model Plan (2000-2005)** Jeffrey T. Kiehl, Chair, CCSM Scientific Steering Committee, Climate & Global Dynamics Division, NCAR
1200	**Group Discussion/*Lunch***
1315	**Analog III (cont.): Earth System Modeling Framework** Cecilia DeLuca, Computational Science Section NCAR
1415	**Analog IV: MODFLOW** Lecturer: Mary C. Hill, U. S. Geological Survey
1500	**Group Discussion/*Break***
1530	**Modeling Strategies** Lecturer: Tom Drake, Marine, Earth & Atmospheric Sciences, NC State University
1615	**Group Discussion/Attitude Adjustment**

1900 *Dinner at Dushanbe Tea House*

Thursday - February 21st
Location: INSTAAR - RL1 Rm 269

Current State of Sediment Modeling

0800 **Landscape Evolution Models**
Greg Tucker, Oxford University School of Geography and the Environment
Bill Dietrich, Department of Earth and Planetary Science, Univ. of Calif., Berkeley

0900 **River Sediment Routing Models**
Gary Parker, Dept. of, Univ. of Minnesota

0930 **Clastic Shelves: The Community Sediment Transport Modeling Initiative**
Courtney Harris

1000 **Group Discussion/Break**

1030 **Carbonate Systems**
Lecturer: Chris Kendall

1100 **Basin-Filling Models: An Overview**
Chris Paola, Department of Geology and Geophysics, University of Minnesota

1130 **Whole Margin Models: SEDFLUX**
Lecturer: James Syvitski, Director, INSTAAR

1215 **Group Discussion/*Lunch***

Break Out Session: Creating a CSM

1330 **Working Group I: Issues of Space/Time Scaling**
--determine how to partition the wide range of time scales on which the CSM models will operate, and how models aimed at different time scales will be coupled

Working Group II: Blueprint for a Modular Model Architecture
--decide on protocols for program architecture, languages, data structures, interfaces, and standards for process subroutines and modules

Working Group III: Solution Schemes for a CSM
--determine schemes required-- such as adaptive meshes, higher order PDE solvers, moving boundaries

Working Group IV: Module Definition
--define the processes modules to be included for each time scale, and evaluate the state of knowledge for each

Working Group V: The Virtual CSM Laboratory
--define how the community will contribute to, and make use of, CSM

1730 **Group Discussion/Attitude Adjustment**

1830 *Dinner at Cancun Restaurant*

Friday - February 22nd
Location: INSTAAR - RL1 Rm 269

Presentation of Working Groups

0800	**Working Group II**
0830	**Working Group IV**
0900	**Working Group I**
0930	*Break*
0945	**Working Group III**
1015	**Working Group V**

Break Out Session II: CSM in Context

1045-1230	**Working Group I:**	**Interactions with field (e. g., MARGINS) and lab (e. g. NCED) efforts**
	Working Group II:	**Linkages to ice & sediments community efforts**
	Working Group III:	**Linkages to climate & sediments community efforts**
	Working Group IV:	**Linkages to ocean & sediments community efforts**
	Working Group V:	**Linkages to hydrology & sediments community efforts**
1230	*Lunch*	
1330-1445	**Brief reports from Working Groups**	
1445	*Break*	

Synthesis

1500	**Synthesize working group results into rough-draft framework document**
1800	*Dinner at Oasis Brewery*