NOPP Community Sediment-Transport Model Meeting Agenda

UCLA

4 – 5 October, 2007

Overall Goal – Update each other on progress and plans. Review/adjust project plans for second year of funding and remainder of project. Note that this meeting has a broader agenda than the Science Meeting in May 2007, with more emphasis on tools and techniques.

Location: Plenary: IGPP Seminar Room, Slichter Hall Room 3853
Breakout Sessions: Geology Building Room 3637, Center Earth Systems Research Lab, IGPP Seminar Room 3853

Agenda, Thursday, Oct 4:

8:30 Coffee and muffins
8:45 Welcome / Logistics – Sherwood/Geyer
Overall Project Goals and Status
Goals of this meeting
9:15 Update from ONR – Tom Drake
9:30 Recap of May Meeting Outcome and Priorities –Rocky Geyer
9:50 Development of an approach to CSTM testing based upon previous model application and validation at Teignmouth, UK (COAST3D project) – Tim Chesher
10:10 Modeling sediment transport at FRF during Hurricane Isabel – Fengyan Shi
10:30 Coffee Break
10:45 Model Coupling I: ESMF in ROMS - Hernan Arango
11:05 Model Coupling II: ESMF at NRL – Tim Campbell
11:25 MORPHOS Project Report – Froehlich
11:45 ADCIRC Update – Rick Leuttich
12:05 Discussion
12:15 – 13:30 Lunch

13:30 Charge to Break-out Groups
14:00-1630 Break-out Session I
16:30 Presentation, Break-out A
16:45 Presentation, Break-out B
17:00 Presentation, Break-out C
17:15 Presentation, Break-out D

17:30 Adjourn

Parking for Oct. 4 and 5 will be in parking lot 2, located at Hilgard Ave.and Westholme Ave on campus and directly east from the Geology Building. There are 30 spaces reserved. The parking kiosk is located at the intersection and next to the parking lot. The confirmation number to give the parking attendant is 208234 (the Community Sediment Transport Model, CSTM, Workshop).

Friday, Oct 5:

8:30 Coffee and muffins
8:45 Logistics, Review – Sherwood/Geyer
9:00 Community Outreach and Collaborative Model Development –Brad Butman
9:20 Status of Webpages/Wiki/Documentation – David Robertson
9:40 Status of Regression Tests- Bhate
10:00 Status of Modeling Tools – Bhate/Signell
10:20 Coffee Break

10:40 Update on multi-grid modeling in ROMS – John Warner
11:00 Charge to Break-out Groups
11:15 -14:30 Break-out Session II (working lunch)
14:30 Presentation, Break-out E
14:45 Presentation, Break-out F
15:00 Presentation, Break-out G
15:15 Presentation, Break-out H
15:30 Adjourn

Break-out Groups

Four potential break-out groups have been suggested. We would like you to let us know via e-mail what break-out group you are most interested in participating in. If you are not interested in any of them or feel that a different topic would be more valuable, please suggest it. We have already had some commentary, so please chime in. As we have 2 break-out sessions, we are not limited to 4 topics.

1. **Community talk back**: As potential, new or experienced users of the Community Model, what are the things that you would find most useful to help you conduct research with the CSTM? Are there experiences you have had with other sediment models we should learn from? What are your favorite aspects of the system? What are your least favorite aspects?

2. **Tool development for community sediment transport**: We are seeking to build tools that can work with a number of different models by using the NetCDF Conventions. What is missing from the CF conventions that we need for sediment models? Can we come up with some specific recommendations for the CF group and test cases that will help enable our ideas to be incorporated into the CF specification? Can we agree on standards for vector components, grid staggering and masking for CSTM that we can use prior to official adoption of standards by CF?

3. **ESMF/Coupling**: Now that we have a version of ROMS controlled by the ESMF superstructure, it should be possible to couple with other applications that have been written to be controlled by the ESMF superstructure. Can we come up with a test application of coupling ROMS to another existing ESMF application to see if ESMF truly has made the coupling easier? (e.g. NRL has coupled NCOM and COAMPS using ESMF. Can we see how hard it would be to now couple COAMPS with ROMS using

ESMF?) What is our way forward with coupling technology? Are there things that other coupling packages do that we would like to see incorporated in ESMF?

4. **Linking small scale sediment process models with CSTM/ROMS:** A number of process models have been discussed (including Dune, 1-D erosion-deposition models, 1 and 2-D fluid mud models) that represent active research elements in CSTM. Should some of these process models be designated as stand-alone components of the CSTM "family"? In which cases can the algorithms be directly ported into the CSTM uber-model, and if that is infeasible (e.g., due to resolution of computational considerations), how should the process models and regional-scale models be linked?

Participant List

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