

FD2107 MINUTES Workshop 6 Thursday 19th October 2006 MRC, London

Participants:

FD2107 John Huthnance (POL), Andrew Lane (POL), Richard Soulsby (HRW),
Ian Townend (HRW), Andrew Manning (HRW & UoP), Harshinie Karunarathna (UoP),
Paul Norton (ABPmer), Adrian Wright (ABPmer), Kate Scott (EA)

FD2117 & FD2119 Alun Williams (ABPmer), Bill Cooper (APBmer), Chris Jackson (ABPmer),
Jon French (UCL), Helene Burningham (UCL), Richard Whitehouse (HRW),
Suresh Surendran (EA), Kevin Morris (Discovery Software)

Meeting commenced 10:00.

JOINT MEETING with FD2117, FD2119 (morning)

1 Overview of the *Joint FCERM R&D Programme and Modelling And Risk Theme*

Suresh Surendran introduced the joint Defra and Environment Agency FCERM (Flood and Coastal Erosion Risk Management) R&D Programme, its structure and aims. The £25M Programme commenced in 2000 with six themes; it was reviewed in 2005 and now comprises four themes. A summary of the MAR theme was given, together with sub-themes and drivers.

2 FD2117 Project Overview

Development and Demonstration of Systems Based Estuary Simulators (EstSim)

Alun Williams described the broad aims (including simulating estuary response to changes) and the systems-based approach for specifying a behaviour model. Geomorphological elements of various estuary types are identified using (rule base) 'systems diagram' and 'behavioural description' protocols. The 'utility' consists of a database of estuary definitions, systems diagrams and photographs.

Jon French gave details of the 'Development of architecture for estuary behavioural system simulator' (Task 5). The simulator, using a Boolean Network approach devised in WP2.5 by UoP, can be Web-based or (semi) stand-alone. A case study of the Ribble Estuary was shown.

3 FD2107 Project Overview

Development of Estuary Morphological Models (EstMorph)

John Huthnance presented the project's objectives, the partners and the work packages. These included progress reports and examples, highlighting the different model types (e.g., Bottom-Up, Top-Down and Hybrid), models and methods used for studying a set of estuaries, sensitivity analyses and the data requirements.

4 FD2119 Project Overview

Development and Dissemination of the Estuary Research Programme

The project started on 4th September 2006 and runs to 31st March 2008. Richard Whitehouse stated overall and specific objectives: it involves specification of an enhanced Estuary Impact Assessment System, and scoping out of an integrated Estuary Management System. Deliverables are in the form of reports and electronic media/web. Invitation to all to contribute to the project.

5 Other dissemination

FD2117 and FD2107 expect to / have negotiated a coordinated endpoint of 30th June 2007. Possible long publication times: recommend not to hold back papers for special journal issue. Abstracts submitted for Defra/EA conference in York, Tuesday 3rd–Thursday 5th July; the workshop/final meetings may be held on Monday 2nd July. IMA Flood RA conference in Plymouth, Tuesday 4th–Wednesday 5th September.

FD2107 Workshop (afternoon)

1 MINUTES WORKSHOP 5

Minutes of Workshop 5 were accepted.

*Action
reqd by*

Actions outstanding:

Website *www.pol.ac.uk/erp* to be publicised via COZONE after 'restructuring'.

AL

The article on FD2107 for the Defra newsletter (yet to appear) now needs updating.

JMH

2 MATTERS ARISING

JMH received communication from Peter Balson. AW now has Holocene surfaces for the Mersey, Humber and Southampton Water from BGS. The Thames surface has been digitised from a published paper.

Contact the Port of London Authority for present and immediate-past Thames data.

AL

ISIS licence purchase (for ABP), six months period is required; cost may come from the 'data' budget.

Possible members of the Advisory Group – the following names were suggested: Brian O'Connor, John McManus, David Keiller and Mike Thorn (with Marcel Stive as reviewer)

3 'RESTRUCTURING' OF FD2107

The Implementation Plan was circulated in July. Comparisons are envisaged for WPs 1, 2.7 and 3.

The work content was agreed with Andrew Parsons in June. (KS has temporarily replaced Andrew Parsons.) The contract will be decided with a couple of weeks. Apologies were received for the time taken.

4 SUMMARY OVERALL PROGRESS

Presentations (see *www.pol.ac.uk/erp*):

WP1 JHM gave an outline in the earlier presentation. Next milestone: 'Guidelines for the application of GCC (Global Climate Change) and interventions on flood risks and sediment regimes' – drafts were circulated in August/September. Has milestone been met? Figures and a glossary will appear in the FD2107 Final Report (Defra format), for managers and those who will run B-U models. This will be circulated to the Review Group.

JMH will send the first draft to KS now, and also when the draft is revised.

JMH

WP2.1, 2.2 AW described the SHELL framework. It is not time-dependent, only regime-dependent. A comparison with Delft3D was given with application to the 2nd Mersey Crossing (positioning of bridge piers). POLEST (conceptual model) may remain outside of the SHELL, allowing users easier access to the code. If so, it will need to be more user-friendly.

AL

WP2.3 (ABP, formerly Delft) WP depends on acceptance of CVO (contract variation order). ABP can use a Matlab version of ASMITA. Algorithm testing and a user guide are in progress, with application to the Thames Estuary.

WP2.4 HK introduced the model formulation, inversion technique and the Humber Estuary field site. EOF analysis was performed to give spatial modes and their temporal variations.

WP2.7 (See new schedule; this should start now) 'Intercomparisons and evaluation of model predictions for 2050 morphologies', led by POL using B-U, T-D and hybrid models, for eight estuaries, assessing ensemble ranges and relative sensitivities. Observations will guide the weighting of each ensemble member.

All

WP3 RS spoke about WPs 3.1, 3.2 earlier. WP3.3 looks at managed realignment (Tollesbury). Scenarios include: presence/absence of locally generated wind waves, bed friction, model resolution and effects of vegetation.

5 DATA REQUIREMENTS

AJM is funded until February 2007. He presented the data set for estuaries in England and Wales, augmented with data from Scottish sea lochs. Tasks in progress were listed; data will be lodged with BODC.

6 AOB

Drafts of abstracts for the Defra/EA conference in York; these have been circulated. Opinions and contributions are welcome.

Meeting ended at 17:00.