

Channel Coast News

Issue 20 - February 2005

The newsletter for the Southeast Strategic Regional Coastal Monitoring Programme www.channelcoast.org

Regional News

South East Coastal Group

Feedback from the Coastal Group meeting is being analysed with a view to putting together a report on the content of future Annual Reports. Data from the bathymetric surveys is slowly arriving and being processed. After discussions with the contractor, the standard of data is greatly improved.

A new version of SANDS is now available and arrangements will be made in the near future to visit individual authorities and install the new version, together with the updated database. As soon as the computer training suite at Canterbury City Council is re-established, training sessions for SANDS users will be arranged.

South Downs Coastal Group

Following the alert from the Rustington Wave Buoy, the post storm survey data of the frontage between the rivers Arun and Adur, has now been received, checked and added to the SANDS database. Halcrow reported no problems in completing this survey, although they would have much preferred undertaking the survey during daylight hours in the summer rather than the very early and late working times, dictated by the tides between the 12th and 14th January!

During the coming months, Worthing Borough Council (WBC) will install a weather station on Worthing Pier. This station will stream near real-time data to the WBC website and to the www.channelcoast.org website. This is being installed and paid for by WBC and will be an added benefit to the Strategic Regional Monitoring Programme and the SDCG region.

One-to-one Project Partner meetings are being planned for March 2005. These meetings are intended to tease out any comments, views or further requirements for the Annual Report and data delivery in the next phase of the project.

Environment Agency (Southern Region)

We are currently in the process of evaluating the pre-qualification responses to the OJEU notice for the next phase of the habitat monitoring work. We are hoping to go out to tender by the end of March. The current habitat monitoring work is being undertaken for Hampshire and the Isle of Wight by Kent County Council and will be delivered by the end of May.

Considerable progress has been made with the LiDAR programme and data received to date is undergoing QA checking. Following a review meeting with Kampsax, all photogrammetry data is being reprocessed to meet the project's quality requirements and will be redelivered by the

end of February. Planning for this year's aerial flights is well underway and the aircraft will be in the UK in March.



Aircraft used by Kampsax for the ABMS programme (copyright: COWIA/S)

SCOPAC

A half-day meeting is being planned at Southampton Oceanography Centre for programme partners in the SCOPAC region. The primary aim of the meeting is to discuss the annual reports and programme progress. Details will be sent by email shortly.

Channel Coastal Observatory

The last elements of the procedure for uploading topographic and bathymetric data to the project archive are being tested. Once testing is complete, data files can be uploaded directly by Lead Authorities on completion of QC checks.

Contacts

If you have any queries about the Strategic Regional Coastal Monitoring Programme, or would like a personal copy of this newsletter by email, please contact your area representative:

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Post-storm surveys - Part I

The topographic surveying programme encompasses an annual post-storm survey of many of the regular profile survey lines. In general, this means profiles at about 200-400m intervals. However, the actual coverage is based on local requirements, following discussions with Local Authority and Environment Agency engineers.

All post-storm surveys are carried out using RTK GPS and, ideally, immediately following the storm, since shingle beaches in particular can recover extremely quickly – within one or two tides. In some cases then, the surveys will be carried out on neap tides and, since sea conditions often remain rough, safety considerations mean that the surveyors are seldom able to reach Mean Low Water Springs. Accordingly, the seaward limit of the survey is defined rather loosely by: “as far seaward as can be achieved safely”. In this way, the upper part of the profile (which is where most of the deformation occurs in storms) is surveyed quickly.

The criteria for calling a post-storm survey vary slightly from site to site and depend highly on the knowledge and experience of Local Authority engineers. For example, on Hayling Island, when seawater starts to flood a known section of road, a post-storm survey is called. Along much of the SCOPAC coastline, a Storm Force 10 from the southwest or a Force 7 from the southeast will call out the surveyors to the prevailing sections of coast. Figure 1 shows the damage in Studland Bay following the notable storm of October 2004.



Figure 1 Storm damage at Studland, 29 October 2004

Where a lengthy time series of wave measurements is available, the criterion for a post-storm survey can be based on real-time measurements; at Milford-on-Sea, measured H_s of 3.5m indicates a storm which might cause significant damage. In other cases, the real-time wave data on the website is used. For example, an H_s of 3m and wave direction between 150 and 210° measured by the wave buoy at Rustington will sent an automatic text alert to Local Authority engineers, to consider a survey along the frontage from Rivers Arun to Adur. At Folkestone, measured H_s of 2.5m is the threshold for text message alerts.

There is a natural tendency to wait for particularly extreme conditions before calling the annual post-storm survey, but it is important that a whole range of “storms” are captured, in order that threshold conditions for significant damage or coastal flooding can be established.

Storm damage can be highly localised; further to the east of the beach shown in Figure 1, there was little damage to the duned back of beach, although the inter-tidal profile was notably deformed (*see Figure 2 below*).

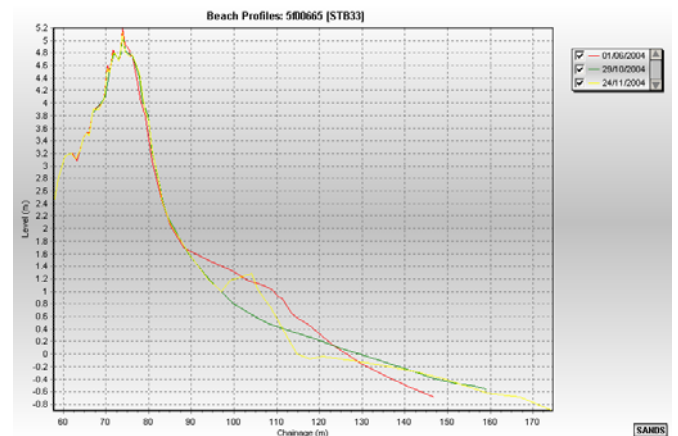


Figure 2 Beach profile in Studland Bay

Figure 2 also illustrates how rapidly a beach can recover. The post-storm survey on 29 October 2004 (green line) shows the drawdown of the berm of sediment (red line) which had built up during the summer, and the subsequent recovery of the profile within a month (yellow line).

The next issue of the *Channel Coast News* will cover modelling of profile response to storms and barrier breaching.