**Chapter 14**

**Movie File**

[Video footage](file://localhost/Users/fagents/Dropbox/ModVolcProc/FilesForSubmission/Online%20Materials/OS_Ch14/Online%20supplements%20-%20Lavigne%20stuff/front%20gros%20lahar.mpg) of a 19 January 2002 lahar in the Curah Lengkong river channel, Semeru volcano, Indonesia. This was a debris-flow lahar characterized by a 4.5-deep boulder dam flow front moving downstream at 5.7 m s-1, followed by a slurry flow which peaked at more than 570 m3 s-1, and then rapidly decreased (*Q* < 50 m3 s-1after 20 minutes). The total sediment discharge of this lahar was estimated to be > 1200 x 103 m.

This event is described in

Lavigne, F., Tirel, A., Le Floch, D. and Veyrat-Charvillon, S. (2003). A real-time assessment of lahar dynamics and sediment load based on video-camera recoding at Semeru volcano, Indonesia. In *Debris-Flow Hazards Mitigation: Mechanics, Prediction, and Assessment,* ed. D. L. Rickenmann and C. Chen. Rotterdam: Millpress, pp. 871-882.