

## Montserrat Notes

1. Notes on runout distances in Eliza's .xls file
  - a. The 0.6 km runout means a runout of between 0.6 and 1 km
  - b. 1 km means 1-1.5 km
  - c. For flows down the Tar River valley, 3 km means at least 3 km. The ocean is a 3 km flow, so anything that enters is notes as '3 km'
2. The dome collapse events usually imply several flow pulses over the course of a couple of hours. The events without 'dome collapse' are typically single pulses.
3. Between 1996 and 2000, the typical pattern of flows was frequent and small, with an occasional large event. Since 2000, the basic pattern is infrequent large events, when a large portion of the dome collapses, with a scattering of smaller flows along the way.
4. Keep your eyes out – the dome has been growing rapidly towards the North of late, and the MVO is expecting a large event any day. Going North threatens population centers.
5. Some raw data with volume estimates Eliza feels are as accurate as they can be. The (vert/horiz) ratio provides a measure of effective friction, and helps the friction-volume estimate we spoke about in December.

| <u>Date</u>     | <u>Vertical Height of Fall (km)</u> | <u>Horizontal Runout Length (km)</u> | <u>Volume (X 10<sup>6</sup> m<sup>3</sup>)</u> |
|-----------------|-------------------------------------|--------------------------------------|--|
| 3 April 96      | 0.59                                | 1.6                                  | 0.152  |
| 12 May 96       | 0.91                                | 2.9                                  | 0.331  |
| 31 March 97     | 0.86                                | 2.5                                  | 0.163  |
| 5 June 97       | 0.86                                | 3.1                                  | 0.375  |
| 17 June 97      | 0.86                                | 3.9                                  | 0.766  |
| 25 June 97      | 1.01                                | 6.7                                  | 5.538  |
| 30 March 97     | 0.83                                | 3.6                                  | 2.6  |
| 11 April 97     | 0.9                                 | 4.05                                 | 2.9  |
| 3 Aug 97        | 0.9                                 | 5.6                                  | 8.7  |
| 21 September 97 | 0.92                                | 6.0                                  | 13.563   |