

**STATUS REPORT – to be presented to the Intelligence Team by 1200hrs daily.**

|                                       |                             |   |
|---------------------------------------|-----------------------------|---|
| <b>Event: Christchurch Earthquake</b> |                             | <b>Section/Function/agency:</b>           |
| <b>Date:</b><br><b>08/03/2011</b>     | <b>Time:</b><br><b>1200</b> | <b>Science Liaison Team</b>               |
| <b>Operational Period:</b>            |                             | <b>Originator Record #:</b><br><b>011</b> |

**Current situation** (incidents, action taken, resource status, personnel numbers etc)

***Earthquake Activity & Deformation:***

- Appendix A illustrates the magnitude and frequency of aftershocks from 22 February to 8 March 2011.
- GNS are planning to install some seismometers as part of investigating site response and amplification factors (e.g. Mt Pleasant).

***Hot Springs:***

- GNS scientists have visited and sampled springs at Rapaki, Cass, Motukarara, Purau and Hanmer.

***Landslides:***

- Teams of geotechnical engineers continue to investigate areas of landslide or rockfall concerns.
- Processing of continuous GPS data continues and GNS Science has also undertaken laser scanning surveys of the Redcliffs rock face on 03 and 06 March, which has not shown any movement between the two dates.
- Grant Dellow is continuing to refine the evacuation zones, in conjunction with the Geotechnical Steering Group, and making sure the houses that need to be red stickered are red stickered.
- Grant Dellow, Mark Yetton and Helen Grant attended three community briefings yesterday at McCormacks Bay, Sumner and Lyttelton. These were well attended and there was great interest in the rockfall and landslide issue. A factsheet is being developed today to outline the issues and processes for returning to homes (or not).
- GNS is providing overview inputs (eg rockfalls, area assessment) and providing advice to USAR teams on landslide related ground damage, including survey data relating to ground stability.

***Liquefaction:***

- The liquefaction map prepared by University of Canterbury has been provided to Tonkin & Taylor for incorporation in the overall liquefaction database and map.

***Geospatial:*** Development of the landslide database is well advanced. The information provided for each point includes location, description, mechanism, potential effects, initiation, treatment plan and red sticker information. The database is now being used for public enquiries and CD operations. Appendix B illustrates the landslide hazard zonation as mapped to date.

**Outstanding Issues / Challenges / Problems:**

***Landslides:*** A city council employee has been reportedly removing red stickers from houses that had been red stickered for geotechnical reasons. This MUST NOT happen. Building evaluation team have been informed of this.

***Liquefaction:*** The progressive development of the Tonkin & Taylor database is not being provided to those who need it and specific requests for this information have not been responded to.

**Anticipated Priorities / Activities: (For future operational periods)**
***Hot Springs:***

- GNS scientists will tomorrow sample the Sylvia Flats springs, and in the following days will visit springs at Ferrymead, Heathcote and the Lyttelton rail tunnel.

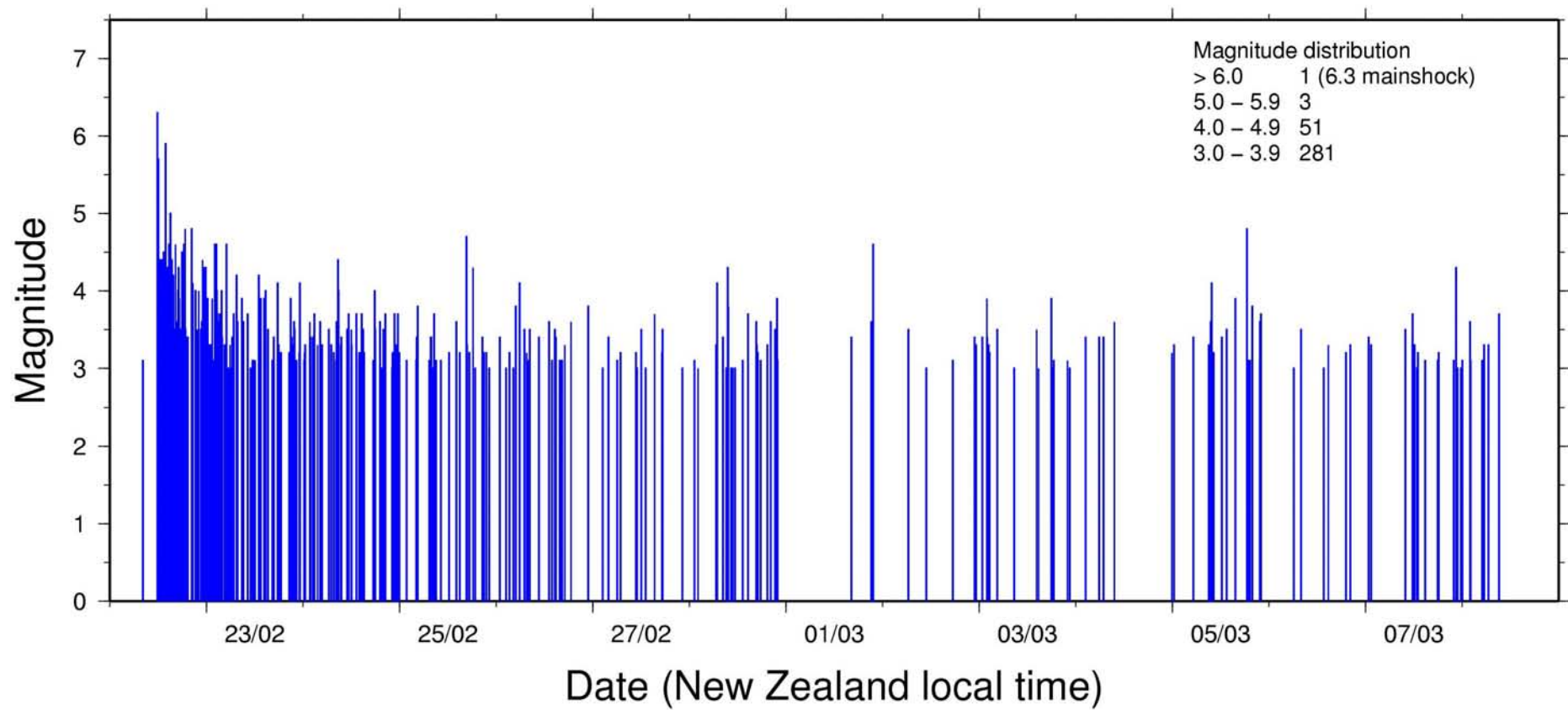
***Geospatial:***

- According to Peter Wood, the LiDAR will be acquired tonight.
- Development of the landslide geodatabase and associated maps will continue.

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**APPENDIX A:**

Magnitude and frequency of aftershocks from 22 February to 8 March 2011.



**APPENDIX B:**

Landslide hazard zonation as mapped to date.

