

**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> 14/03/2011	<b>Time:</b> 1200	<b>Science Liaison Team</b>
<b>Operational Period:</b>		<b>Originator Record #:</b> 016

**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 14 March 2011.
- Appendix B illustrates the number of aftershocks with magnitude >3.0 since 22 February.

***Monitoring:***

- Continuous GPS are still monitoring Glendevere Rd, Kinsey Tce and Vernon Tce.

***Landslides:***

- The systematic mapping of landslide, rockfall and other slope-related ground damage using the high resolution aerial photography (GNS) is now 80% complete.
- Compiling of data from the damage assessment teams into the geotechnical mass movement data base continues. The maintenance of the database will continue within the EOC.
- All houses that require red placards for geotechnical reasons now have them in place. No more red placards for geotechnical reasons will be issued, unless initiated by a resident.
- Work is now underway in several areas, including Sumner and Avoca Valley to secure dangerous boulders to reduce rockfall risk. More detailed assessments are also now starting for areas affected by landslides.
- There are still concerns within the geotechnical steering group that water is being turned back on in hill suburbs, which could exacerbate slope stability issues, despite the geotechnical steering group providing landslide information to CD operations.

***Liquefaction:***

- A liquefaction fact sheet is currently being prepared for affected communities, and will be of a similar type to the rockfall and landslide fact sheet.

***Geospatial:*** Field surveying of GPS control points to support the definition of the height datum for the LiDAR has been completed and the data will be processed in Wellington.

***Social Science:*** A new security protocol has been put in place in the EOC to manage visiting researcher access, and so reduce the impact of uninvited international researchers on the USAR engineering teams. This begins today (14/03/2011).

**Outstanding Issues / Challenges / Problems:**

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

As the response transitions to recovery, the Science Liaison Desk within the EOC was consulted about how long it will continue for (CCC is looking to occupy Art Gallery for business as usual operations). Kelvin Berryman confirmed there will continue to be 3 people on the desk (Platform/EQ sci, geotech, social sci) for up to 2 weeks, but this configuration is likely to change when the recovery office takes shape. At this point research liaisons will be deployed where appropriate.

**Monitoring:** Urgent processing of continuous GPS data continues at GNS in Lower Hutt.

**Geospatial:** Processing of LiDAR data and associated height datum control data will continue.

**Landslides:** The rockfall and landslide fact sheet will be updated by tomorrow with new information for residents.

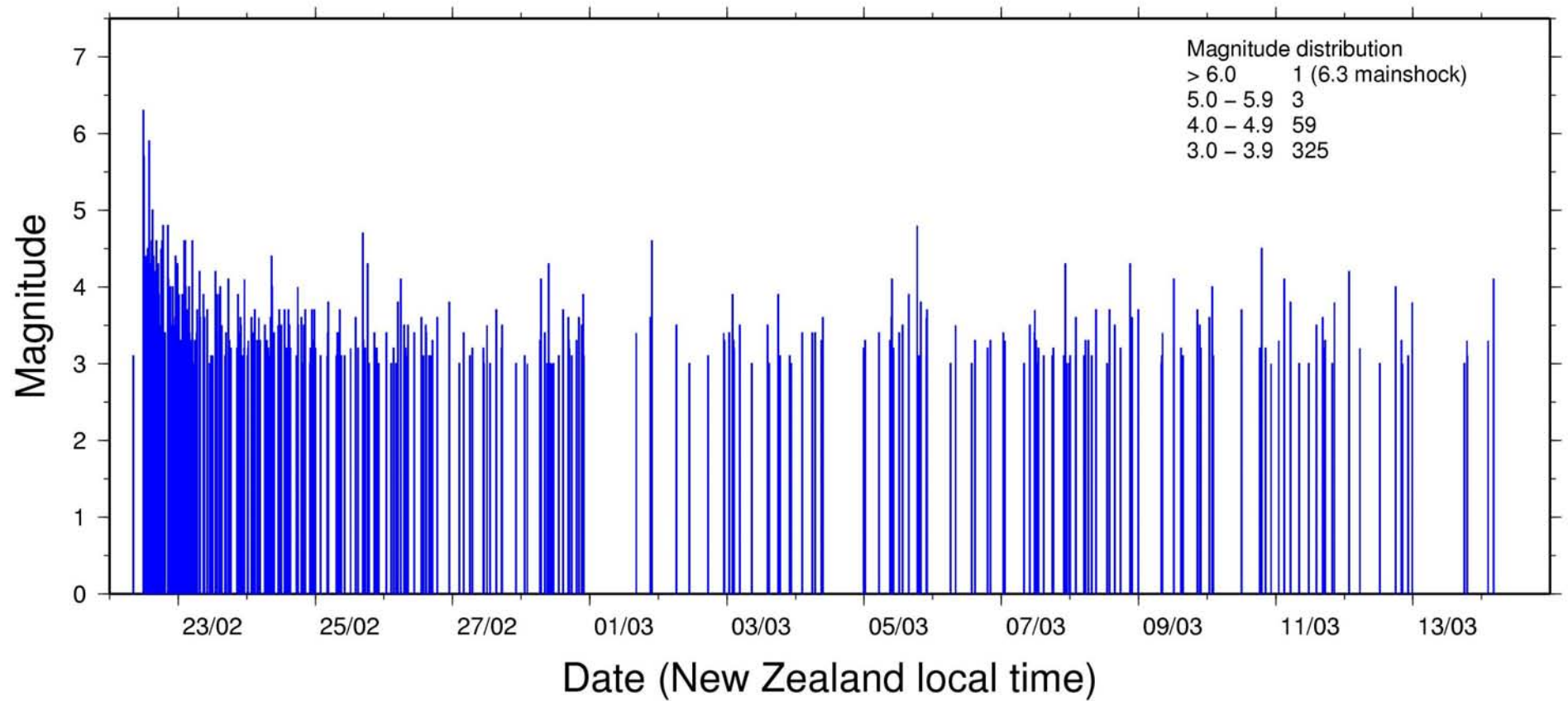
**Social Science:**

- *International liaison:* Several international teams on the ground this week – local researchers planning to interact and brief them on situation (mostly engineering however).
- *Social science support for Geotech teams:* Geotechnical assessments are currently being made to facilitate the reoccupation of houses in rockfall/landslide hazard zones. It is anticipated that some people will be reluctant to return. In acknowledgement of this, land use planning researchers and other appropriate social science expertise will be included within this programme.
- *TEC request:* There has been a request from TEC for further input into understanding the impacts of migration of tertiary students to other regions. Meeting in Wellington Wed 16th.
- *Risk Communication Advisory Group:* The Risk Communication Advisory Group are preparing a guidance note following a request from MSI. There will be a teleconference concerning this at 3pm today, 14<sup>th</sup> March.
- *Psychosocial Recovery Advisory Group:* The Ministry of Social Development has agreed to set up a Psychosocial Recovery Advisory Group; terms of reference are under development.

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**APPENDIX A:**

Magnitude and frequency of aftershocks from 22 February to 14 March 2011.



**APPENDIX B:**

Number of aftershocks per day with magnitude  $>3.0$  since 22 February.

## Number of aftershocks per day with $M \geq 3.0$

