The CUSP-3 series represents the best value strong-motion and structural monitoring equipment, providing seismologists, engineers and building and infrastructure managers with the most comprehensive and cost effective range of realtime monitoring solutions available.

# CANTERBURY SEISIVIC INSTRUMENTS

**CUSP-3** Series Strong **Motion Accelerographs** 

# **APPLICATIONS**

- Strong motion recording
- Determining event strength at site
- Free-field networks
- Dense arrays
- Aftershock studies
- Structural monitoring
- Construction monitoring
- Code compliance

## **FEATURES**

- Intuitive yet powerful user interface
- Up to 3 triaxial sensors up to 500m apart
- Flexible communications
- Low operation and deployment costs



## 1, 2 OR 3 SENSORS

With one internal triaxial accelerometer as standard, the CUSP-3 series can have up to two external sensors for code compliance in structures or for special purpose measurements such as motion and pore-pressure combinations.

## MULTIPLE PARAMETERS CAN BE MEASURED

Including, but not limited to; acceleration, displacement (string wire, laser, LVDT), strain, pore pressure, wind, environment (T.P.H.), water depth etc.

# LOW COST STANDARDISED WIRING SOLUTION

The CUSP-3 series remote sensors are deployed with single CAT5 cables between recorder and sensors, providing data communications, synchronisation and power.

#### **EASY INSTALLATION**

Sensor data is converted to a digital format at each sensor, and transferred using the RS422 protocol – in many cases a structure's existing network wiring can be used.

Central data timing providing precise synchonisation at each node, without GPS.

# SIMPLE REMOTE ACCESS TO DATA

The central recorder collects synchronised data from multiple sensors and provides a single data set, including reporting on event statistics. Access and control is performed over the Internet using a standard web browser.

# **INTEROPERABILITY**

All CSI products use open industry standards and require no special software to view, stream, interpret or control the data gathering process

# CANTERBURY SEISMIC INSTRUMENTS LTD

149 Rutherford Building University of Canterbury Christchurch 8140, New Zealand P. +64 3 364 3575 sales@csi.net.nz





#### **INSTANT REPORTS**

Event information alerts via email or SMS to managers and site engineers for immediate decisions on occupancy, integrity and management.

Instrument AVONHEAD recorded an event

Trigger time/date: 11:32:00 10/07/2012 UTC

Modified Mercalli Intensity (MMI): 4.4

PGA: 46mg

Duration exceeding trigger: 25s

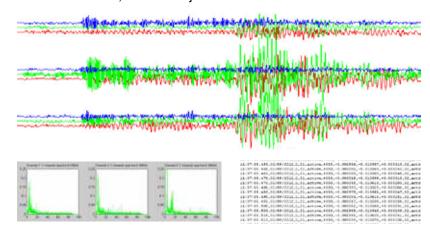
Filename: AVONHEAD\_10-07-2012\_11-32-00\_0046mg\_MMI04.4\_0025s.csd

File size 978135b

The event file will soon be avaliable in the folder 'avonhead' on the FTP server located at...

#### **DETAILED DATA**

The CUSP-3 series provide seismologists with high quality strong motion earthquake data, and building and infrastructure managers with a detailed record of all the parameters determining the structure's health, more than just acceleration.



### **PROVEN RESULTS**

The CUSP-3 series has been proven on numerous critical transport facilities and structures globally, as well as in the M6.3 Selfoss, Iceland event of 2008 and the 2010-2012 damaging earthquake sequence in Christchurch, New Zealand, capturing one of the most dense datasets recorded over and around a fault rupture zone.

