DIGITAL SENSITIVITY CORRECTIONS FOR STATIONS OF THE LAMONT COOPERATIVE SEISMOGRAPHIC NETWORK (NETWORK CODE, LD)

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In the spring of 2010, waveform data from the Lamont Cooperative Seismographic Network (LCSN) with the network code **LD** were analyzed by the global CMT group for a set of small earthquakes that followed the Mw 7.1 Haiti earthquake of 12 January 2010. The waveform data were also used for regional moment tensor inversion of several earthquakes that occured in the eastern United States and southeastern Canada. It was discovered that the digital sensitivity (DS) listed in counts/(meter/s) at 10 stations of the network LD were a factor of two smaller than actual values, that is, converted ground motion was a factor of two greater than true values. The list of stations affected are given in Table 1. The corrected metadata (Dataless Seed volume) of the network LD was deposited at the IRIS-DMC. Web page for the *IRIS DMC Metadata Aggregator* with URL http://www.iris.edu/mda/LD provides detailed list and a network map for LD is also found at URL http://www.iris.edu/gmap/LD.

Table 1: Stations of the Lamont Cooperative Seismographic Network with a factor of two error in gain constant, network code **LD**$^{(*)}$

Station code	Seismometer (model)	Natural period (s)	Sample rate (samples/s)	Digital Sensitivity (counts/[m/s])	Sensor gain (V/[m/s])	Applicable time window
ACCN	CMG-3TD	100	40	4.64E+09	6,000	2000,172,12:00-
ALLY	CMG-3ESPD	30	40	4.65E+09	6,000	2002,150,00:00-
BRNY	CMG-3ESPD	30	100	3.15E+09	6,000	2006,283,00:00-
FMPA	CMG-40TD	30	100	2.52E+09	3,200	2005,053,23:52-
LUPA	CMG-3T	120	100	3.14E+09	6,000	2001,001,00:00-
MMNY	CMG-3ESPD	30	100	1.88E+09	6,000	2008,219,00:00-
MVL	CMG-3ESPD	30	40	4.72E+09	6,000	2001,043,00:00-
PTN	CMG-3ESPD	30	40	3.15E+09	6,000	2005,312,00:00-
SDMD	CMG-3TD	100	100	4.72E+09	6,000	2001,305,00:00-
UCCT	CMG-3ESPD	30	100	1.88E+09	6,000	2005,063,01:47-

$^{(*)}$ station locations are given in http://www.ldeo.columbia.edu/LCSN/Station/lcsn_bb.html and are plotted in http://www.iris.edu/gmap/LD; the letter **D** as the last character on seismometer model indicates that the datalogger is mounted on top of the seismometer barrel; seismometers are product of Güralp Systems Limited in United Kingdom; Sample rate is as of 1 July 2010; Digital Sensitivity is for the reference frequency of 0.05 Hz (= 20s period); Sensor gain is the nominal sensitivity for the three-component seismometer.