

Department of the Army New York District Corps of Engineers Jacob K. Javits Federal Building 26 Federal Plaza New York, NY 10278-0090

# Week of February 17 – February 23, 2014

The following pages display the results from the USACE-NYD real-time website for the week of Monday, February 17, through Sunday, February 23, 2014.

There were 10 blasts this week in the S-AK-3 project area.

We recorded vibrations in S-AK-3 project area. The maximum vibration recorded was 0.0425 in/s recorded at Elizabeth Marina on February 18. Table 1 summarizes the blasts this week.

Page 2 summarizes dredge locations for this week. The map shows the week's last dredge locations by colored symbols, connected by colored lines to the week's previous locations marked by gray symbols. Drillboat Apache and operated in S-AK-3 all week.

The remaining odd pages display the home page showing the maximum vibration measured in all of the stations for the most recent event for each day:

February 17 February 18 February 19 February 20 February 21 February 22 February 23

The even pages show the maximum vibration observed at each station along easting for each event.

The results for this week show the measurements at the three active stations: New York Container Terminal (NYCT), Elizabethport, and Elizabeth Marina. The station locations are on each page.

Ground vibrations at NYCT were all below 0.02 in/s. Vibrations at Elizabethport were all below 0.02 in/s. Vibrations at Elizabeth Marina were all below 0.05 in/s. All blast vibration measurements are below the contract vibration limits for this site.

Table I. Diast Summar	j ioi uns week		
Blast	Date & Time	Distance from blast	e4s Max.
	EST/EDT of blast	to e4s stations (feet)	vibration (in/s)
AK-210	2014-02-18 09:05	2,230 - 3,660	0.0425
AK-211	2014-02-18 15:10	2,230 - 3,660	0.0212
AK-212	2014-02-19 09:05	2,560 - 3,970	0.0362
AK-213	2014-02-19 15:50	2,550 - 3,970	0.0269
AK-214	2014-02-20 09:09	2,720 - 4,130	0.03
AK-215	2014-02-20 13:58	2,390 - 3,820	0.0275
AK-216	2014-02-21 09:05	2,380 - 3,820	0.035
AK-217	2014-02-21 14:15	2,560 - 3,980	0.0294
AK-218	2014-02-22 09:05	2,550 - 3,970	0.0375
AK-219	2014-02-22 14:29	2,720 - 4,140	0.0225

#### Table 1. Blast Summary for this week



History Links

# **Dredge Position Summary**

This page summarizes dredge positions for the week. The Arthur Kill contract area is mapped with a top-of-rock map. The navigation grid is superimposed. The map shows dredge locations by colored symbols, connected by colored lines to the week's past locations marked by gray symbols. The map resets beginning the Monday of each week.

Mousing over a dredge location produces a pop-up text box giving dredge name, date of location, and easting and northing coordinates of the location in the NAD83 New Jersey State Plane coordinate system.

Click on a station for station information.



Todays Dredge Position

Latest Week's Dredge Position Summary Project History List

The table below lists the date, name, easting, northing, and notes for the week's dredge positions. The position is the last reported dredge position of the day.

Dredge Location Table						
Date	Dredge Name	Easting	Northing	Notes		
2014-02-23 Sun				No Activity		
2014-02-22 Sat				No Activity		
2014-02-21 Fri				No Activity		
2014-02-20 Thu	Drillboat Kraken	577224	658130			
2014-02-19 Wed				No Activity		
2014-02-18 Tue				No Activity		
2014-02-17 Mon				No Activity		
- e	4 <mark>sciences</mark>   Earthworks, LLC	27 Glen Road, Sandy	Hook, CT 06482	www.e4sciences.com		



Stations: Home Event Summarv Dredges History

### Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

Links

This page represents the most recent observations.

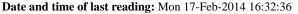
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

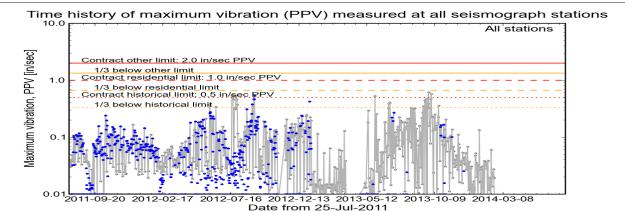
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels. The dark gray dots are predicted blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Mon 17-Feb-2014	16:32:36	0.0088	Elizabeth Marina
Ambient	Sun 16-Feb-2014	18:32:36	0.0194	Elizabeth Marina
Ambient	Sat 15-Feb-2014	15:32:36	0.0275	Elizabeth Marina
Ambient	Fri 14-Feb-2014	12:32:35	0.0206	Elizabeth Marina
Ambient	Thu 13-Feb-2014	19:32:16	0.0237	Elizabeth Marina
Ambient	Wed 12-Feb-2014	14:02:36	0.0137	Elizabeth Marina
	exisciences Earthwork	CILC 27 Clop Bo	ad Sandy Hook CT 064	

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27 Glen Road, Sandy Hook, CT 06482 www.e4sciences.com



History Links

# Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

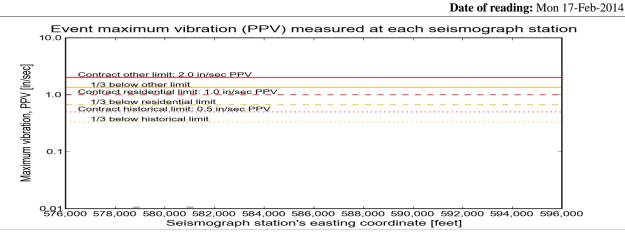
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (*e4sciences stations are circles. CDB stations are triangles.*) Selecting a station activates its station page.

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Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (*Light-gray stems indicate ambient-vibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.*)



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 17-Feb-2014	16:32:36	0.00875	Ambient
NYCT - e4s008	Mon 17-Feb-2014	04:23:03	0.00437	Ambient



Stations: Home Event Summarv Dredges History

### Arthur Kill Blast Vibration Summary

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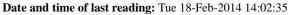
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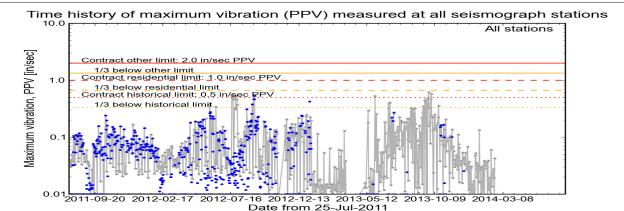
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels. The dark gray dots are predicted blast-vibration levels.)





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	exisciences Earthwork	CILC 27 Close Re	ad Sandy Hook CT 064	22 www.odscionsos.co

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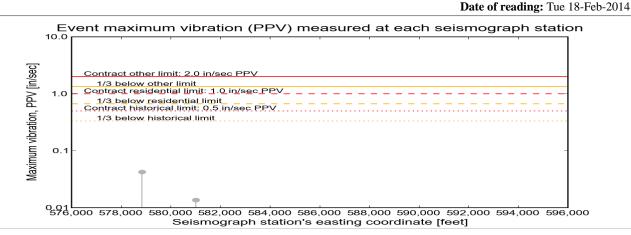
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(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Tue 18-Feb-2014	14:02:35	0.0425	Ambient
NYCT - e4s008	Tue 18-Feb-2014	13:52:45	0.0137	Ambient



Stations: Home Event Summarv Dredges History

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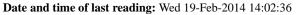
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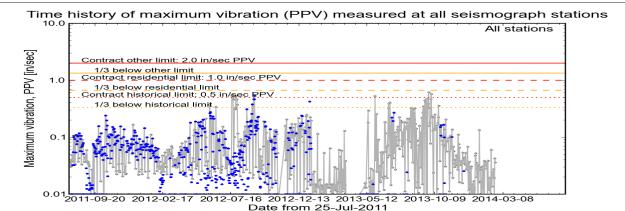
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Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Wed 19-Feb-2014	14:02:36	0.0362	Elizabeth Marina
Ambient	Tue 18-Feb-2014	14:02:35	0.0425	Elizabeth Marina
Ambient	Mon 17-Feb-2014	16:32:36	0.0088	Elizabeth Marina
Ambient	Sun 16-Feb-2014	18:32:36	0.0194	Elizabeth Marina
Ambient	Sat 15-Feb-2014	15:32:36	0.0275	Elizabeth Marina
Ambient	Fri 14-Feb-2014	12:32:35	0.0206	Elizabeth Marina
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Dredges

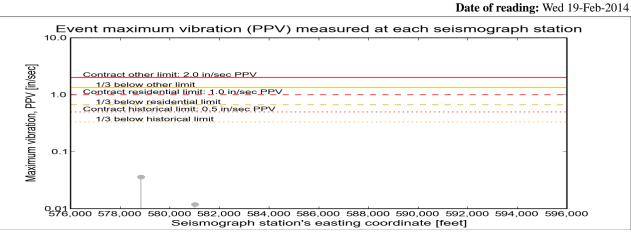
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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 19-Feb-2014	14:02:36	0.0362	Ambient
NYCT - e4s008	Wed 19-Feb-2014	13:52:45	0.0119	Ambient



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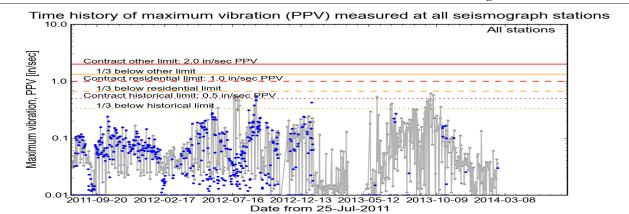
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Date and time of last reading: Thu 20-Feb-2014 14:02:36



(Click on graph or here for larger view)

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Ambient	Wed 19-Feb-2014	14:02:36	0.0362	Elizabeth Marina
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Ambient	Sun 16-Feb-2014	18:32:36	0.0194	Elizabeth Marina
Ambient	Sat 15-Feb-2014	15:32:36	0.0275	Elizabeth Marina
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This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

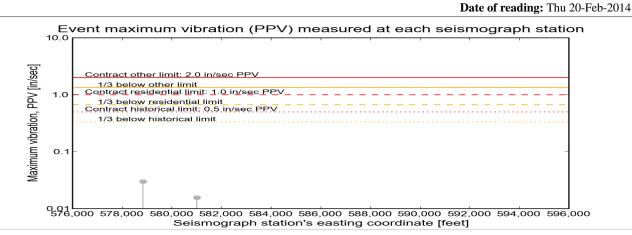
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(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Thu 20-Feb-2014	14:02:36	0.03	Ambient
NYCT - e4s008	Thu 20-Feb-2014	14:07:45	0.0156	Ambient



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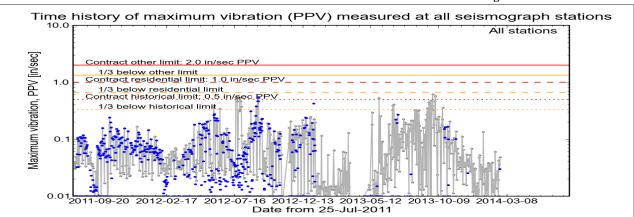
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Date and time of last reading: Fri 21-Feb-2014 13:08:09



(Click on graph or here for larger view)

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Ambient	Wed 19-Feb-2014	14:02:36	0.0362	Elizabeth Marina
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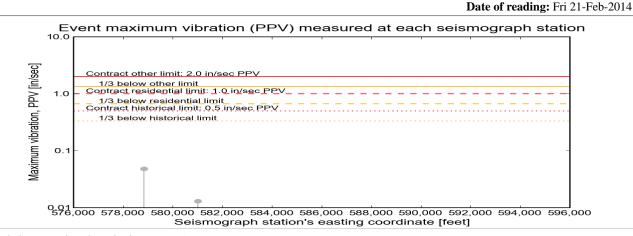
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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Fri 21-Feb-2014	13:08:09	0.0481	Ambient
NYCT - e4s008	Fri 21-Feb-2014	13:52:45	0.0131	Ambient



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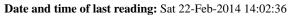
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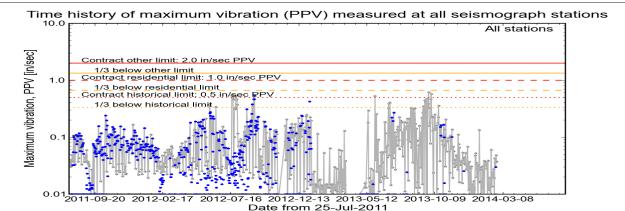
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Ambient	Fri 21-Feb-2014	13:08:09	0.0481	Elizabeth Marina
Blast	Thu 20-Feb-2014	14:02:36	0.0300	Elizabeth Marina
Ambient	Wed 19-Feb-2014	14:02:36	0.0362	Elizabeth Marina
Ambient	Tue 18-Feb-2014	14:02:35	0.0425	Elizabeth Marina
Ambient	Mon 17-Feb-2014	16:32:36	0.0088	Elizabeth Marina
	eqsciences Earthwork	s, LLC 27 Glen Ro	ad, Sandy Hook, CT 064	82 www.e4sciences.com

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History Links

# Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

Dredges

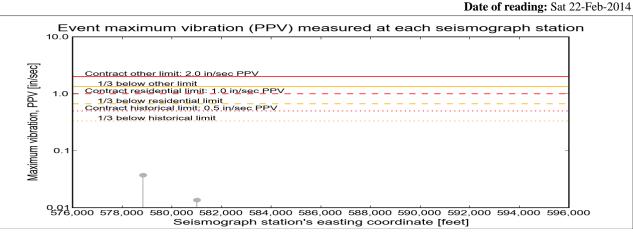
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (*e4sciences stations are circles. CDB stations are triangles.*) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (*Light-gray stems indicate ambient-vibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.*)



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 22-Feb-2014	14:02:36	0.0375	Ambient
NYCT - e4s008	Sat 22-Feb-2014	13:52:44	0.0137	Ambient



#### Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

Links

This page represents the most recent observations.

The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

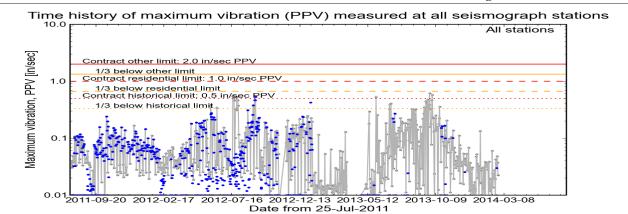
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (*The light gray curve is ambient-vibration level*. *The blue dots are blast-vibration levels*. *The dark gray dots are predicted blast-vibration levels*.)

Date and time of last reading: Sun 23-Feb-2014 00:17:34



(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sun 23-Feb-2014	00:17:34	0.0225	Elizabeth Marina
Ambient	Sat 22-Feb-2014	14:02:36	0.0375	Elizabeth Marina
Ambient	Fri 21-Feb-2014	13:08:09	0.0481	Elizabeth Marina
Blast	Thu 20-Feb-2014	14:02:36	0.0300	Elizabeth Marina
Ambient	Wed 19-Feb-2014	14:02:36	0.0362	Elizabeth Marina
Ambient	Tue 18-Feb-2014	14:02:35	0.0425	Elizabeth Marina
	eqsciences   Earthwork	s, LLC 27 Glen Ro	ad, Sandy Hook, CT 064	82 www.e4sciences.com

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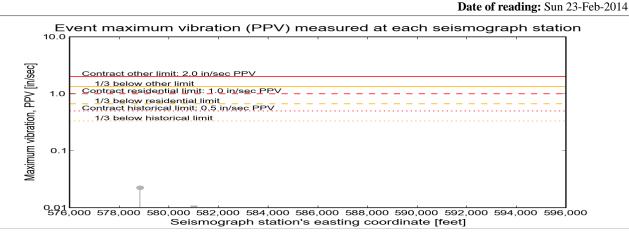
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Click station for more information about the station.



Selected Event Summary

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(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sun 23-Feb-2014	00:17:34	0.0225	Ambient
NYCT - e4s008	Sun 23-Feb-2014	15:52:45	0.0075	Ambient