

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 January 13 - January 19, 2014

The following pages display the results from the USACE-NYD real-time website for the week of Monday, January 13, through Sunday, January 19, 2014.

There were 6 blasts this week in the S-AK-3 project area.

We recorded vibrations in the S-AK-3 project area. The maximum vibration recorded was 0.0331 in/s recorded at Elizabeth Marina on January 15. 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 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:

January 13

January 14

January 15

January 16

January 17

January 18

January 19

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.

Ground vibrations at NYCT were all below 0.03 in/s. Ground vibrations at Elizabethport were all below 0.02 in/s. Ground vibrations at Elizabeth Marina were all below 0.04. Blast vibration measurements were below the contract vibration limits for this site.

Table 1. Blast Summary for this week

Blast	Date & Time EST/EDT of blast	Distance from blast to e4s stations (feet)	e4s Max. vibration (in/s)
AK-178	2014-01-13 12:09	2,570 - 3,960	0.03
AK-179	2014-01-14 09:29	2,460 - 3,810	0.02
AK-180	2014-01-15 11:14	1,700 - 3,010	0.0331
AK-181	2014-01-16 09:52	2,260 - 3,400	0.0294
AK-182	2014-01-17 09:19	2,610 - 3,970	0.0269
AK-183	2014-01-18 12:41	1,610 - 3,050	0.02



Stations: Dredges **Event Summary** 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
2014-01-19 Sun	Drillboat Apache	<b>577444</b>	658682	
2014-01-18 Sat	Drillboat Apache	<b>577973</b>	659080	
2014-01-17 Fri	Drillboat Apache	<b>577582</b>	658128	
2014-01-16 Thu	Drillboat Apache	<b>577532</b>	658165	
2014-01-15 Wed	Dredge FJ Belesimo	<b>587637</b>	657943	
2014-01-15 Wed	Drillboat Apache	<b>578232</b>	658823	
2014-01-14 Tue	Dredge FJ Belesimo	<b>587642</b>	658042	
2014-01-14 Tue	Drillboat Apache	<b>577662</b>	658238	
2014-01-13 Mon	Drillboat Apache	<b>577449</b>	658051	
$\sim$	4sciences   Earthworks,	LLC 27 Glen Road,	Sandy Hook, CT 06482	www.e4sciences.com

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## **Arthur Kill Blast Vibration Summary**

New York District

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.

This page represents the most recent observations.

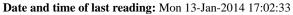
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and 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.

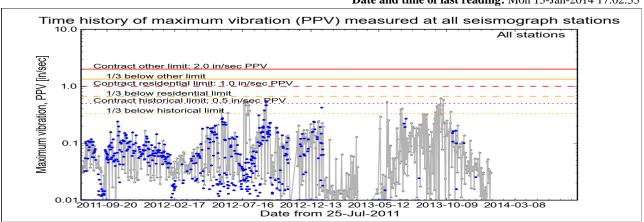
Click station for station information or click channel for event summary.



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.)





(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 13-Jan-2014	17:02:33	0.0300	Elizabeth Marina
Ambient	Sun 12-Jan-2014	03:17:39	0.0075	Elizabeth Marina
Ambient	Sat 11-Jan-2014	15:47:33	0.0325	Elizabeth Marina
Ambient	Fri 10-Jan-2014	15:02:37	0.0275	Elizabeth Marina
Ambient	Thu 09-Jan-2014	14:22:45	0.0200	NYCT
Ambient	Wed 08-Jan-2014	16:47:38	0.0356	Elizabeth Marina
	e4sciences   Earthworks	, LLC 27 Glen Road, Sa	andy Hook, CT 064	www.e4sciences.com

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Stations:

Dredges

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# **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.

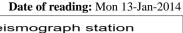
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates 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.

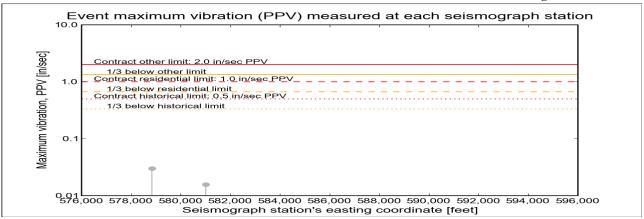
Click station for more information about the station.



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 ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)





(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 13-Jan-2014	17:02:33	0.03	Ambient
NYCT - e4s008	Mon 13-Jan-2014	17:07:45	0.0156	Ambient



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## **Arthur Kill Blast Vibration Summary**

New York District

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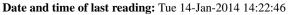
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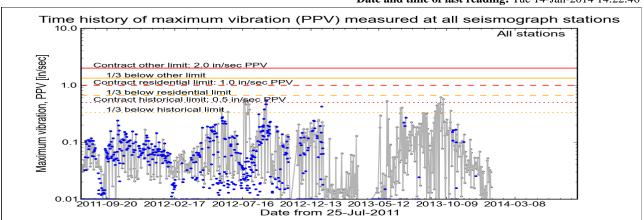
Click station for station information or click channel for event summary.



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.)





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Ambient	Sat 11-Jan-2014	15:47:33	0.0325	Elizabeth Marina
Ambient	Fri 10-Jan-2014	15:02:37	0.0275	Elizabeth Marina
Ambient	Thu 09-Jan-2014	14:22:45	0.0200	NYCT
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#### **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.

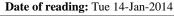
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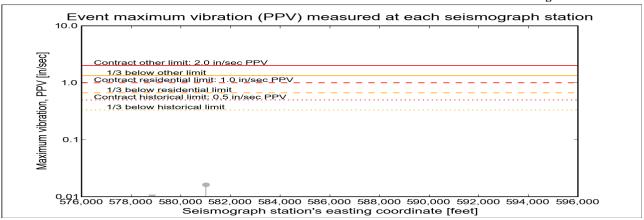
Click station for more information about the station.



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(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Tue 14-Jan-2014	14:02:35	0.00812	Ambient
NYCT - e4s008	Tue 14-Jan-2014	14:22:46	0.0162	Ambient

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## **Arthur Kill Blast Vibration Summary**

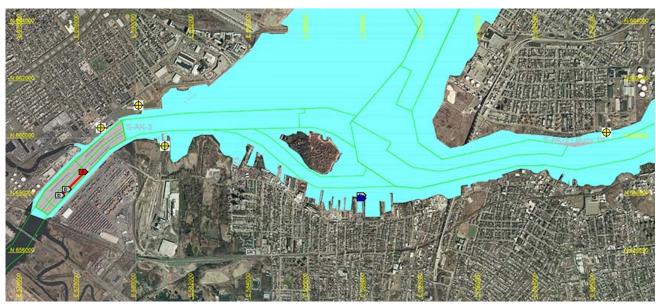
New York District

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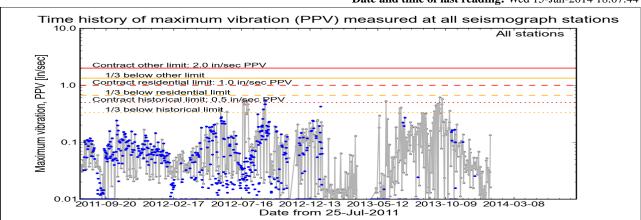
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Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Wed 15-Jan-2014	18:07:44	0.1340	Elizabeth Marina
Ambient	Tue 14-Jan-2014	14:22:46	0.0162	NYCT
Ambient	Mon 13-Jan-2014	17:02:33	0.0300	Elizabeth Marina
Ambient	Sun 12-Jan-2014	03:17:39	0.0075	Elizabeth Marina
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Ambient	Fri 10-Jan-2014	15:02:37	0.0275	Elizabeth Marina
	e4sciences   Earthwork	S, LLC 27 Glen Roa	d, Sandy Hook, CT 064	82 www.e4sciences.com

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**Event Summary** Stations: Dredges History Links

# **Arthur Kill Blasting Event Summary**

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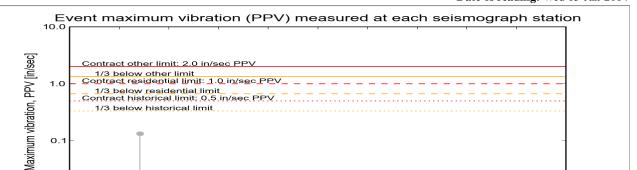
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Date of reading: Wed 15-Jan-2014

(Click on graph or here for larger view)

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Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 15-Jan-2014	18:07:44	0.134	Ambient
NYCT - e4s008	Wed 15-Jan-2014	13:08:06	0.0206	Ambient

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000 582,000 584,000 586,000 588,000 590,000 592,000 594,000 596,000 Seismograph station's easting coordinate [feet]

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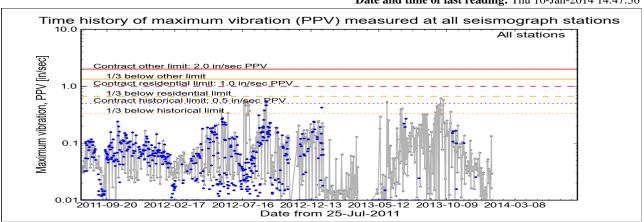
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Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
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Ambient	Wed 15-Jan-2014	18:07:44	0.1340	Elizabeth Marina
Ambient	Tue 14-Jan-2014	14:22:46	0.0162	NYCT
Ambient	Mon 13-Jan-2014	17:02:33	0.0300	Elizabeth Marina
Ambient	Sun 12-Jan-2014	03:17:39	0.0075	Elizabeth Marina
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Stations:

Dredges

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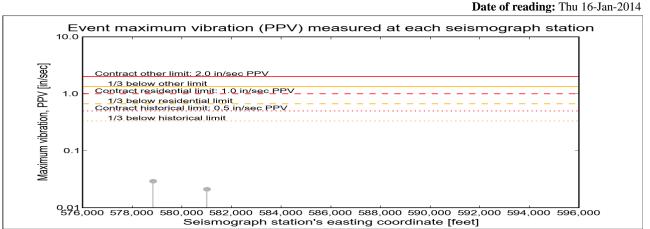
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NYCT - e4s008	Thu 16-Jan-2014	17:37:45	0.0212	Ambient

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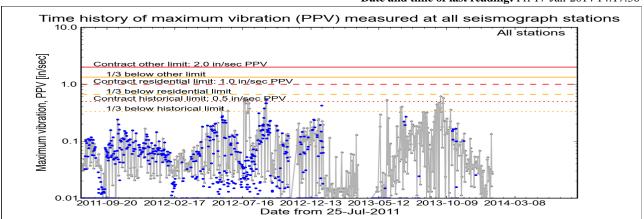
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Ambient	Tue 14-Jan-2014	14:22:46	0.0162	NYCT
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# **Arthur Kill Blasting Event Summary**

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.

Links

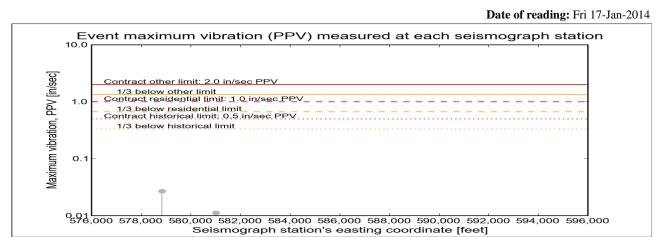
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This page represents the most recent observations.

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.

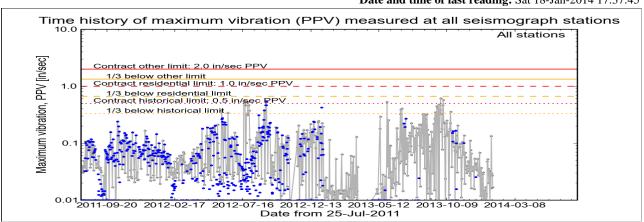
Click station for station information or click channel for event summary.



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.)





(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	Sat 18-Jan-2014	17:37:45	0.0169	NYCT
Ambient	Fri 17-Jan-2014	14:17:36	0.0269	Elizabeth Marina
Ambient	Thu 16-Jan-2014	14:47:36	0.0294	Elizabeth Marina
Ambient	Wed 15-Jan-2014	18:07:44	0.1340	Elizabeth Marina
Ambient	Tue 14-Jan-2014	14:22:46	0.0162	NYCT
Ambient	Mon 13-Jan-2014	17:02:33	0.0300	Elizabeth Marina
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Stations:

Dredges

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.

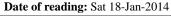
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates 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.

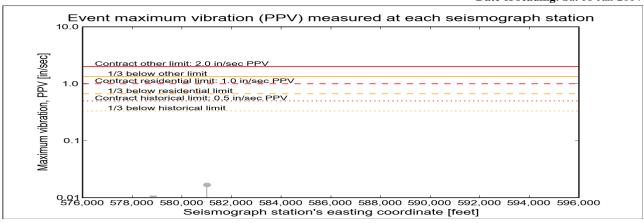
Click station for more information about the station.



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 ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)





(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 18-Jan-2014	18:29:14	0.00625	Ambient
NYCT - e4s008	Sat 18-Jan-2014	17:37:45	0.0169	Ambient

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Home Event Summary Stations: Dredges History Links

## **Arthur Kill Blast Vibration Summary**

New York District

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.

This page represents the most recent observations.

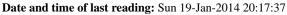
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and 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.

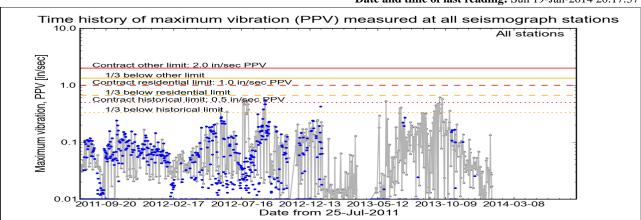
Click station for station information or click channel for event summary.



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.)





(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 19-Jan-2014	20:17:37	0.0069	Elizabeth Marina
Ambient	Sat 18-Jan-2014	17:37:45	0.0169	NYCT
Ambient	Fri 17-Jan-2014	14:17:36	0.0269	Elizabeth Marina
Ambient	Thu 16-Jan-2014	14:47:36	0.0294	Elizabeth Marina
Ambient	Wed 15-Jan-2014	18:07:44	0.1340	Elizabeth Marina
Ambient	Tue 14-Jan-2014	14:22:46	0.0162	NYCT
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Home Event Summary Stations: Dredges 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.

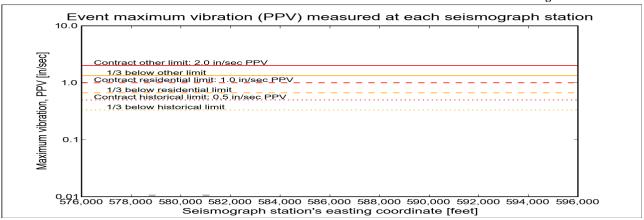
Click station for more information about the station.



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 ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)





(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sun 19-Jan-2014	20:17:37	0.00687	Ambient
NYCT - e4s008	Sun 19-Jan-2014	14:22:46	0.00562	Ambient

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