

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 March 10 - March 16, 2014

The following pages display the results from the USACE-NYD real-time website for the week of Monday, March 10, through Sunday, March 16, 2014.

There were 7 blasts this week in the S-AK-3 project area. The blast AK-242 is split into two blasts as all of the holes did not completely fire the first time (daily communication received on March 11).

We recorded vibrations in the S-AK-3 project area. The maximum vibration recorded was 0.158 in/s recorded at Elizabeth Marina on March 14. 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 most recent event for each day:

March 10

March 11

March 12

March 13

March 14

March 15

March 16

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 0.085 in/s. Vibrations at Elizabethport were all below 0.0169 in/s. Vibrations at Elizabeth Marina were all below 0.158 in/s. All blast vibration measurements are below the contract vibration limits for this site.

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

Blast	Date & Time	Distance from blast	e4s Max. vibration
	EST/EDT of blast	to e4s stations (feet)	(in/s)
AK-239	2014-03-10 09:25	4,180 - 5,720	0.0212
AK-240	2014-03-10 15:01	4,010 - 5,550	0.0200
AK-241	2014-03-11 09:20	4,620 - 6,160	0.0194
AK-242A	2014-03-11 15:00	4,490 - 6,030	0.0175
AK-242B	2014-03-11 15:28	4,490 - 6,030	0.0106
AK-243	2014-03-12 09:30	4,720 - 6,260	0.0200
AK-244	2014-03-12 17:35	4,160 - 5,690	0.0112



**Event Summary** Dredges 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

## Dredge Location Table

Date	Dredge Name	Easting	Northing	Notes
2014-03-16 Sun	Drillboat Apache	577817	658271	
2014-03-15 Sat	Drillboat Apache	576966	657398	
2014-03-14 Fri	Drillboat Apache	577037	657609	
2014-03-13 Thu				No Activity
2014-03-12 Wed	Drillboat Apache	576755	657346	
2014-03-11 Tue	Drillboat Apache	576813	657430	
2014-03-11 Tue	Drillboat Kraken	576942	657617	
2014-03-10 Mon	Drillboat Apache	576771	657481	





#### **Arthur Kill Blast Vibration Summary**

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This page represents the most recent observations.

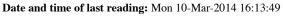
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and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

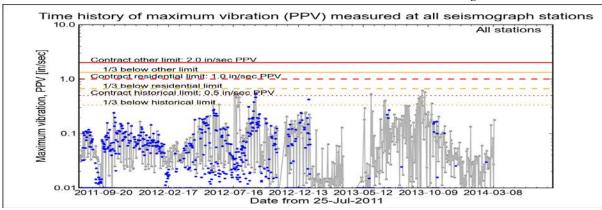
Click station for station information or click channel for event summary.



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. The dark gray dots are predicted blast-vibration levels.)





(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Mon 10-Mar-2014	16:13:49	0.1780	Elizabeth Marina
Ambient	Sun 09-Mar-2014	19:32:35	0.0075	Elizabeth Marina
Ambient	Sat 08-Mar-2014	14:17:35	0.0275	Elizabeth Marina
Ambient	Fri 07-Mar-2014	14:30:04	0.0819	Elizabeth Marina
Ambient	Thu 06-Mar-2014	17:20:55	0.0369	Elizabeth Marina
Ambient	Wed 05-Mar-2014	13:16:02	0.0544	Elizabeth Marina



## **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.

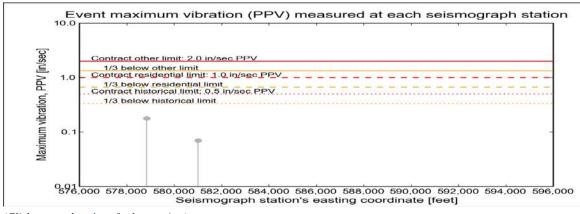
Click station for more information about the station.



Selected Event Summary

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Date of reading: Mon 10-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 10-Mar-2014	16:13:49	0.178	Ambient
NYCT - e4s008	Mon 10-Mar-2014	16:18:55	0.07	Ambient



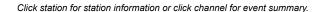
Home Event Summary Stations: Dredges History Links

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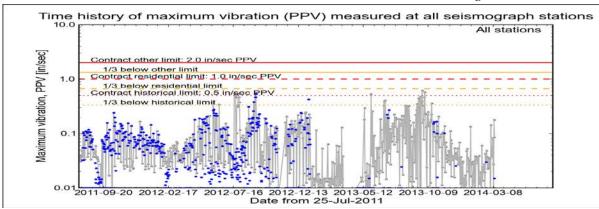




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Date and time of last reading: Tue  $11\text{-Mar-}2014\ 16:02:31$ 



(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Tue 11-Mar-2014	16:02:31	0.0850	NYCT
Ambient	Mon 10-Mar-2014	16:13:49	0.1780	Elizabeth Marina
Ambient	Sun 09-Mar-2014	19:32:35	0.0075	Elizabeth Marina
Ambient	Sat 08-Mar-2014	14:17:35	0.0275	Elizabeth Marina
Ambient	Fri 07-Mar-2014	14:30:04	0.0819	Elizabeth Marina
Ambient	Thu 06-Mar-2014	17:20:55	0.0369	Elizabeth Marina
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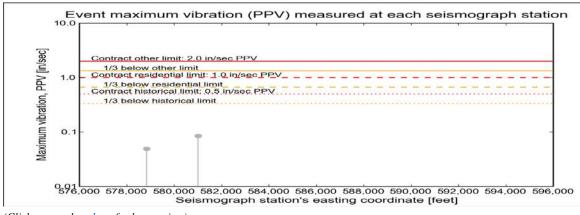
Click station for more information about the station.



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Date of reading: Tue 11-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Tue 11-Mar-2014	16:45:43	0.0494	Ambient
NYCT - e4s008	Tue 11-Mar-2014	16:02:31	0.085	Ambient



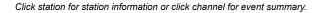
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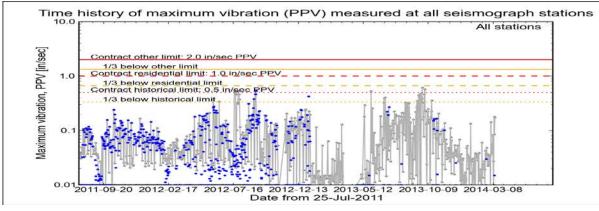




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Date and time of last reading: Wed 12-Mar-2014 15:28:53



(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Wed 12-Mar-2014	15:28:53	0.1740	Elizabeth Marina
Ambient	Tue 11-Mar-2014	16:02:31	0.0850	NYCT
Ambient	Mon 10-Mar-2014	16:13:49	0.1780	Elizabeth Marina
Ambient	Sun 09-Mar-2014	19:32:35	0.0075	Elizabeth Marina
Ambient	Sat 08-Mar-2014	14:17:35	0.0275	Elizabeth Marina
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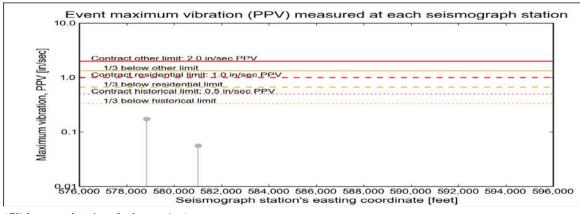
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Date of reading: Wed 12-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 12-Mar-2014	15:28:53	0.174	Ambient
NYCT - e4s008	Wed 12-Mar-2014	10:32:33	0.0562	Ambient

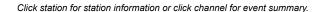


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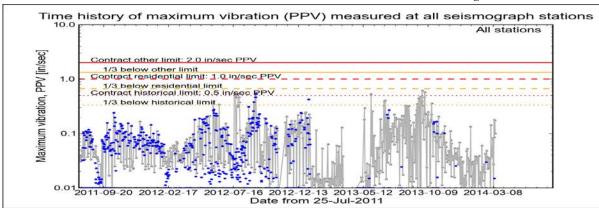




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 $\textbf{Date and time of last reading:} \ Thu\ 13\text{-Mar-}2014\ 13\text{:}33\text{:}07$ 



(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Thu 13-Mar-2014	13:33:07	0.1000	Elizabeth Marina
Ambient	Wed 12-Mar-2014	15:28:53	0.1740	Elizabeth Marina
Ambient	Tue 11-Mar-2014	16:02:31	0.0850	NYCT
Ambient	Mon 10-Mar-2014	16:13:49	0.1780	Elizabeth Marina
Ambient	Sun 09-Mar-2014	19:32:35	0.0075	Elizabeth Marina
Ambient	Sat 08-Mar-2014	14:17:35	0.0275	Elizabeth Marina
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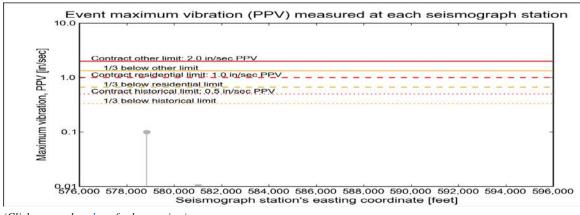
Click station for more information about the station.



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Date of reading: Thu 13-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Thu 13-Mar-2014	13:33:07	0.1	Ambient
NYCT - e4s008	Thu 13-Mar-2014	09:08:01	0.00562	Ambient

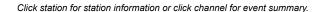


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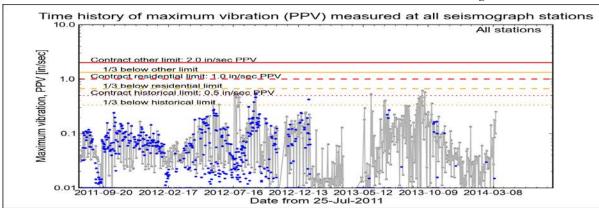




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Date and time of last reading: Fri 14-Mar-2014 17:14:29



(Click on graph or here for larger view)

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Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient Ambient Ambient Ambient Ambient Ambient	Fri 14-Mar-2014 Thu 13-Mar-2014 Wed 12-Mar-2014 Tue 11-Mar-2014 Mon 10-Mar-2014 Sun 09-Mar-2014	17:14:29 13:33:07 15:28:53 16:02:31 16:13:49 19:32:35	0.2520 0.1000 0.1740 0.0850 0.1780 0.0075	Elizabeth Marina Elizabeth Marina Elizabeth Marina NYCT Elizabeth Marina Elizabeth Marina



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Click station for more information about the station.

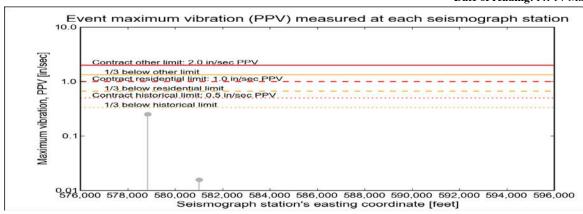


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Date of reading: Fri 14-Mar-2014



Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Fri 14-Mar-2014	17:14:29	0.252	Ambient
NYCT - e4s008	Fri 14-Mar-2014	19:22:44	0.0156	Ambient



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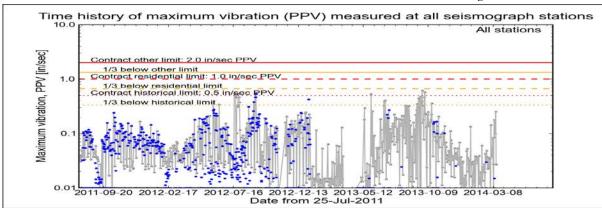
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Date and time of last reading: Sat 15-Mar-2014 14:47:35



(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sat 15-Mar-2014	14:47:35	0.0269	Elizabeth Marina
Ambient	Fri 14-Mar-2014	17:14:29	0.2520	Elizabeth Marina
Ambient	Thu 13-Mar-2014	13:33:07	0.1000	Elizabeth Marina
Ambient	Wed 12-Mar-2014	15:28:53	0.1740	Elizabeth Marina
Ambient	Tue 11-Mar-2014	16:02:31	0.0850	NYCT
Ambient	Mon 10-Mar-2014	16:13:49	0.1780	Elizabeth Marina
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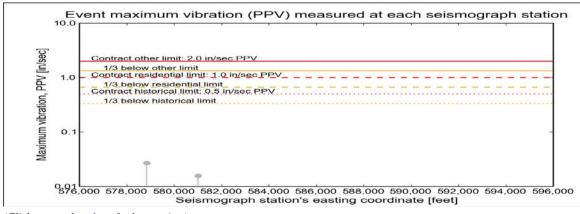
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Date of reading: Sat 15-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 15-Mar-2014	14:47:35	0.0269	Ambient
NYCT - e4s008	Sat 15-Mar-2014	14:52:42	0.0156	Ambient

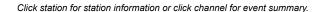


#### **Arthur Kill Blast Vibration Summary**

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.

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.

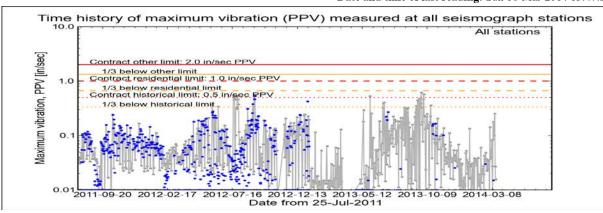




Latest Event Summary

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 16-Mar-2014 13:47:35



(Click on graph or here for larger view)

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sun 16-Mar-2014	13:47:35	0.0156	Elizabeth Marina
Ambient	Sat 15-Mar-2014	14:47:35	0.0269	Elizabeth Marina
Ambient	Fri 14-Mar-2014	17:14:29	0.2520	Elizabeth Marina
Ambient	Thu 13-Mar-2014	13:33:07	0.1000	Elizabeth Marina
Ambient	Wed 12-Mar-2014	15:28:53	0.1740	Elizabeth Marina
Ambient	Tue 11-Mar-2014	16:02:31	0.0850	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.

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.

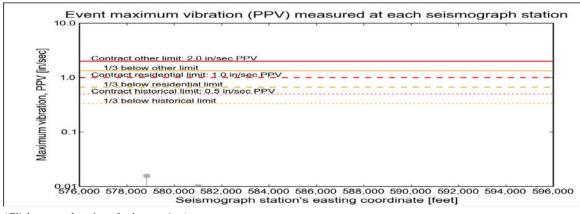
Click station for more information about the station.



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.)

Date of reading: Sun 16-Mar-2014



(Click on graph or here for larger view)

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sun 16-Mar-2014	13:47:35	0.0156	Ambient
NYCT - e4s008	Sun 16-Mar-2014	11:37:42	0.005	Ambient