

DEERFIELD WIND – FALL 2020 SOUND MONITORING COMPLIANCE REPORT



Noise Technical Report

CROSS-SPECTRUM ACOUSTICS INC.

1/11/2021



DEERFIELD WIND FALL 2020 SOUND MONITORING COMPLIANCE REPORT

CSA Project No. J2018-1170

January 11, 2021

D.E. Barrett, INCE Bd. Cert.

H.L. Singleton, Jr., INCE Bd. Cert.

Prepared by:

CROSS-SPECTRUM ACOUSTICS INC.

25 Granby St.

East Longmeadow, MA 01028

T (413) 315-5770

F (413) 315-5770

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY.....	1
2. INTRODUCTION	3
2.1. Project Background.....	3
2.2. Noise Fundamentals.....	4
2.3. Project Noise Standards	6
3. METHODOLOGY	6
3.1. Introduction.....	6
3.2. Field Measurements	7
3.2.1. Monitoring Periods	7
3.2.2. Monitoring Locations	7
3.2.3. Instrumentation	11
3.2.4. Background and Turbine Sound Measurements	11
3.2.5. Attended Measurement	12
3.3. Data Processing.....	13
3.3.1. Determination of Eligible Curtailments Based on Turbine Data	13
3.3.2. Filtering Based on Site C Meteorological and Acoustical Data	15
3.3.3. Compilation of Results	16
4. MONITORING RESULTS	17
4.1. Overall Results.....	17
4.2. Combined Intervals.....	20
4.3. Individual Intervals	20
4.4. Uncertainty Factors.....	22
4.4.1. Introduction.....	22
4.4.2. ANSI S12.9 Part 2 (Long-term measurements).....	22
4.4.3. ANSI S12.9 Part 3 (Short-term measurements).....	23
5. CONCLUSIONS.....	24
APPENDIX A – FINAL SOUND MONITORING PROTOCOL FOR DEERFIELD WIND	A1
APPENDIX B – FALL 2018 MEASUREMENT PLAN	B1
APPENDIX C – FIELD DATA SHEETS	C1
APPENDIX D – SOUND MEASUREMENT INSTRUMENTATION.....	D1
APPENDIX E – WIND TURBINE DATA	E1
APPENDIX F – EXCLUDED DATA: INITIAL FILTERING.....	F1
APPENDIX G – EXCLUDED DATA: ADDITIONAL FILTERING.....	G1

LIST OF TABLES

Table 1. Fall 2020 Monitoring Site..... 9

Table 2. Deerfield Wind Operational Curtailments, October 20 – November 6, 2020 12

Table 3. Summary of A-weighted Exterior Sound Levels (Combined Intervals)..... 20

Table 4. Summary of A-weighted Exterior Sound Levels (Individual Intervals)..... 21

Table 5. Summary of A-weighted Exterior Sound Levels with Uncertainty Factors (Individual Intervals)
..... 24

LIST OF FIGURES

Figure 1. Typical A-weighted Environmental Sound Levels..... 5

Figure 2. Sound Monitoring Sites and Project Wind Turbines..... 8

Figure 3. Site C Location Map..... 9

Figure 4. Site C, View to West 10

Figure 5. Site C, View to Northeast 10

Figure 6. Sound Level and Weather Data: Site C, Oct. 20 – Oct. 24, 2020..... 18

Figure 7. Sound Level and Weather Data: Site C, Oct. 25 – Nov. 1, 2020..... 18

Figure 8. Sound Level and Weather Data: Site C, Nov. 2 – Nov. 6, 2020 18

Figure 9. Sound Level Time History Site C, 10:40 PM, Nov. 5, 2020 to 1:10 AM, Nov. 6, 2020..... 19

1. EXECUTIVE SUMMARY

Project Background

Cross-Spectrum Acoustics (CSA) was retained by the Vermont Department of Public Service (the Department) to provide sound monitoring expert services for the Deerfield Wind Project (Project) located in Searsburg and Readsboro, Vermont. The Project's Certificate of Public Good (CPG) contains conditions limiting sound emissions from the Project and requiring submission of a sound monitoring plan to be implemented during the first full year of operation. Sound monitoring is to take place under the direction of the Department and must be conducted in accordance with the "Final Sound Monitoring Protocol for Deerfield Wind"¹ (Protocol). Pursuant to the Protocol, monitoring is required to consist of two continuous periods, each of two to five weeks duration, with one during the fall and one during the spring. The primary purpose of the monitoring program is to determine whether the Project is operating in compliance with the sound monitoring standards set forth in its CPG.

CSA completed the Fall 2018 monitoring program over a period of five weeks from October 22 until November 26, 2018, with measurements conducted at three locations, designated as Sites A, B, and C. The methodology and findings previously were presented in the final report for the Fall 2018 measurement program.² CSA completed the Spring 2019 monitoring program over a period of five weeks from May 8 until June 12, 2019 with measurements conducted at four locations, designated as Sites A, B, C and C-Alt (the data collected at Site C-Alt were not used in the analysis). The methodology and findings previously were presented in the final report for the Spring 2019 monitoring program.³ Based on the results of the Fall 2018 and Spring 2019 monitoring programs, the Vermont Public Utility Commission (PUC, formerly the Public Service Board) found that the project complied with the CPG's sound limits.

Separate from the CPG sound limits, the Protocol states that homeowners "will be given the option to allow for testing to be conducted to determine the actual outside to inside noise reduction (OINR) of the house" if post-construction noise monitoring "shows Deerfield Project sound levels of 40 dBA (L_{eq})(1 hr) or higher at that location."⁴ Following conclusion of both the Fall 2018 and Spring 2019 monitoring periods, the PUC ordered an additional round of sound monitoring in the Fall of 2020 to determine whether OINR testing at Site C is required. This report describes the methodology and findings of the Fall 2020 monitoring program, which was conducted as ordered by the PUC, and in conformance with the Protocol and the PUC's additional guidance.

Fall 2020 Monitoring Results

CSA completed the Fall 2020 monitoring program from October 20 until November 6, 2020 with measurements conducted only at the prior Site C location. Approximately 406 hours of raw data were collected over 17 days during which 24 turbine-operation curtailments occurred yielding six valid intervals (associated with five curtailments) meeting all applicable screening criteria. The minimum requirement of at least one hour of valid data, including at least 30 minutes associated with a single shutdown, was exceeded.

¹"Final Sound Monitoring Protocol for Deerfield Wind," prepared for: Deerfield Wind, LLC, prepared by: RSG, January 16, 2018.

² "Deerfield Wind Fall 2018 Sound Monitoring Compliance Report," prepared by: Cross-Spectrum Acoustics, Inc., January 7, 2019, Revised October 11, 2019.

³ "Deerfield Wind Spring 2019 Sound Monitoring Compliance Report," prepared by: Cross-Spectrum Acoustics, Inc., August 13, 2019, Revised October 11, 2019.

⁴ "Protocol," Section 2.5 "Outside to Inside Test," p. 6.

Based on the methodology provided in the Protocol and additional guidance provided by the PUC, the measurement results were analyzed with respect to the eligibility threshold for OINR measurements. As required by the PUC, the results were compiled and reported in two ways:

- 1) Following the procedure utilized in both the Fall 2018 and Spring 2019 Monitoring Reports (i.e., combining data samples associated with different shutdowns, including over multiple days); and
- 2) Reporting only data samples contained within a single one-hour period before or after each shutdown.

The results for the two reporting methodologies were as follows:

- *Combined intervals:* During the 17 days of monitoring, valid data was obtained from five curtailments, including five hours and 35 minutes (335 minutes) of “turbine-on” data with a combined L_{eq} of 41 dBA, and one hour and 33 minutes (93 minutes) of “turbine-off” data with a combined L_{eq} of 38 dBA. The resulting “turbine-only” sound level for all intervals combined was 39 dBA, L_{eq} .
- *Individual intervals:* After all filtering and exclusion of contaminating events, six “turbine-on” intervals remained with durations of 49 to 60 minutes and L_{eq} sound levels of 40 to 42 dBA. Each of the “turbine-on” intervals was associated with one of five “turbine-off” intervals with durations ranging from 14 to 21 minutes and L_{eq} sound levels of 36 to 38 dBA. For the six intervals, the “turbine-only” L_{eq} sound levels ranged from 37 to 39 dBA, with a sound level of 39 dBA, L_{eq} during five of the six intervals. Therefore, the highest L_{eq} result for the individual interval methodology was 39 dBA.

In summary, based on the measurements and analysis described in this report and conducted in accordance with the Protocol and additional guidance from the PUC, the “turbine-only” sound level at Site C during the Fall 2020 monitoring period was 39 dBA, L_{eq} .

Uncertainty Factors

The PUC’s June 26, 2020 order required that reporting for the Fall 2020 monitoring program “should also include an explanation of what uncertainty factor, if any, is applied to the data.”⁵ Because the Protocol provides neither a requirement nor guidance regarding the inclusion of uncertainty factors, American National Standards Institute (ANSI) Standard S12.9 “Quantities and Procedures for Description and Measurement of Environmental Sound” Parts 2 and 3 were consulted for guidance.

- ANSI S12.9 Part 2 includes a “Class C” survey which is designed to define an upper limit (i.e., the highest level or worst case) to the measured environmental sound levels. In this respect, the Fall 2020 measurements were similar to an ANSI S12.9 Part 2 “Class C” measurement, and therefore, the measured L_{eq} sound level of 39 dBA may be interpreted as the highest or worst-case sound level that would be expected under typical conditions.
- ANSI S12.9 Part 3 provides specific guidance for estimating uncertainty factors related to short-term measurements. The uncertainty factors are applied to the measured background sound level (“turbine-off” periods) prior to computing the source-only (“turbine-only”) sound level. Using this methodology, the resulting “turbine-only” sound levels for the six individual “turbine-on” intervals, including relevant uncertainty factors, ranged from 36 to 40 dBA, L_{eq} .

It should be noted that the Protocol does not refer to ANSI S12.9 nor does it require its use. Additionally, portions of ANSI S12.9 may conflict with methodology included in the Protocol. For these reasons, the guidance from ANSI S12.9 provided here is intended for informational purposes only.

⁵ State of Vermont Public Utility Commission, Docket 7250, “Order Regarding Fall 2020 Sound Monitoring,” June 26, 2020, p. 8.

2. INTRODUCTION

This section introduces the sound monitoring compliance report and includes the Project's background, a brief overview of the fundamentals of sound and noise descriptors, and a discussion of the Project's noise standards.

2.1. PROJECT BACKGROUND

CSA was retained by the Department to provide sound monitoring expert services for the Deerfield Wind Project located in Searsburg and Readsboro, Vermont. The Project was approved by the PUC in Docket 7250 on April 16, 2009 and commenced operations late in 2017. The CPG, issued April 16, 2009 and amended July 17, 2009, contains conditions limiting sound emissions from the Project, and requiring submission of a sound monitoring plan to be implemented during the first full year of operation. Sound monitoring is to take place under the direction of the Department and must be conducted in accordance with the Protocol approved by the PUC in Docket 7250 in January 2018. (The Protocol is attached to this report as Appendix A.)

The Protocol requires monitoring to consist of two continuous periods, each of two to five weeks duration, with one during the fall and one during the spring. These two monitoring periods were previously completed during fall of 2018 and spring of 2019. On January 9, 2020, the PUC issued an order⁶ finding the Project in compliance with the Amended CPG's sound limits based on the sound monitoring reports for Fall 2018 and Spring 2019 filed by the Department.

Separate from the CPG sound limits, the Protocol states that homeowners "will be given the option to allow for testing to be conducted to determine the actual outside to inside noise reduction (OINR) of the house," if that home meets either of the following criteria:

- 1) The preconstruction sound model shows Deerfield Project sound levels at 40 dBA or higher at that location; or
- 2) Sound monitoring (post-construction) shows Deerfield Project sound levels of 40 dBA (L_{eq})(1 hr) or higher at that location.

The Protocol further states that "Deerfield Wind shall offer OINR testing to homeowners . . . who meet Criterion 2 based upon the first year of post-construction monitoring."⁷

Following conclusion of both the Fall 2018 and Spring 2019 monitoring periods, the PUC determined that "the parties disagree on whether OINR testing at (Site C) has been triggered" and ordered Deerfield to select one of two options:

- 1) Submit to an additional round of fall monitoring in Fall 2020; or
- 2) Conduct OINR testing at Site C.⁸

On January 31, 2020, Deerfield responded to the January 9 order and noted that it was electing to submit to an additional round of sound monitoring in the Fall of 2020.⁹ On June 26, 2020 the PUC issued an order requiring an additional round of sound monitoring in the Fall of 2020 to determine whether OINR

⁶ State of Vermont Public Utility Commission, Docket 7250, "Order Finding Project in Compliance with Amended CPG and Ordering Deerfield to Select Next Step in Resolving OINR Testing Issue," January 9, 2020, p. 10.

⁷ "Protocol," Section 2.5 "Outside to Inside Test," p. 6.

⁸ State of Vermont Public Utility Commission, January 9, 2020, p. 11.

⁹ Letter from Andrew N. Raubvogel, Esq., to Judith Whitney, Clerk of the Commission, dated January 31, 2020.

testing at Site C is required. Further, the order provided “additional guidance for the collection and analysis of the sound monitoring data.”¹⁰

This report describes the methodology and findings of the Fall 2020 monitoring program, which was conducted as ordered by the PUC and in conformance with the Protocol and the PUC’s additional guidance. The remainder of the report provides a brief introduction to understanding environmental noise, describes the applicable Project noise standards, describes the methodology used in the sound monitoring and data analysis, presents the results of the Fall 2020 sound monitoring period, and provides conclusions based on the monitoring results.

2.2. NOISE FUNDAMENTALS

Sound is defined as vibrations that travel through the air or another medium and can be heard when they reach a person’s or animal’s ear. Noise often is defined as unwanted sound. All sounds may be characterized by three parameters:

- **Level:** Sound is transmitted through the air in sound waves comprised of small oscillations in pressure just above and below atmospheric pressure. Sound pressure *level* is expressed in decibels (dB), a logarithmic quantity based on the sound pressure of the sound source of interest and a reference pressure representing the quietest sound we can hear. Although humans can detect sound levels from close to 0 dB (the lower limit of human hearing) to approximately 120 dB without experiencing pain, most environmental sounds fall within a range between about 30 dB and 100 dB.

Because decibels are logarithmic quantities, sound pressure levels do not combine, or add, as we might expect. For example, combining two sound sources that each generate a sound pressure level of 40 dB individually causes a total sound pressure level of 43 dB (not 80 dB). Every doubling of source strength results in an increase of 3 dB, so that four 40-dB sources have a combined sound pressure level of 46 dB, eight 40-dB sources have a combined sound pressure level of 49 dB, etc. A tenfold increase in either the source strength or number of equivalent sources causes the sound pressure level to increase by 10 dB.

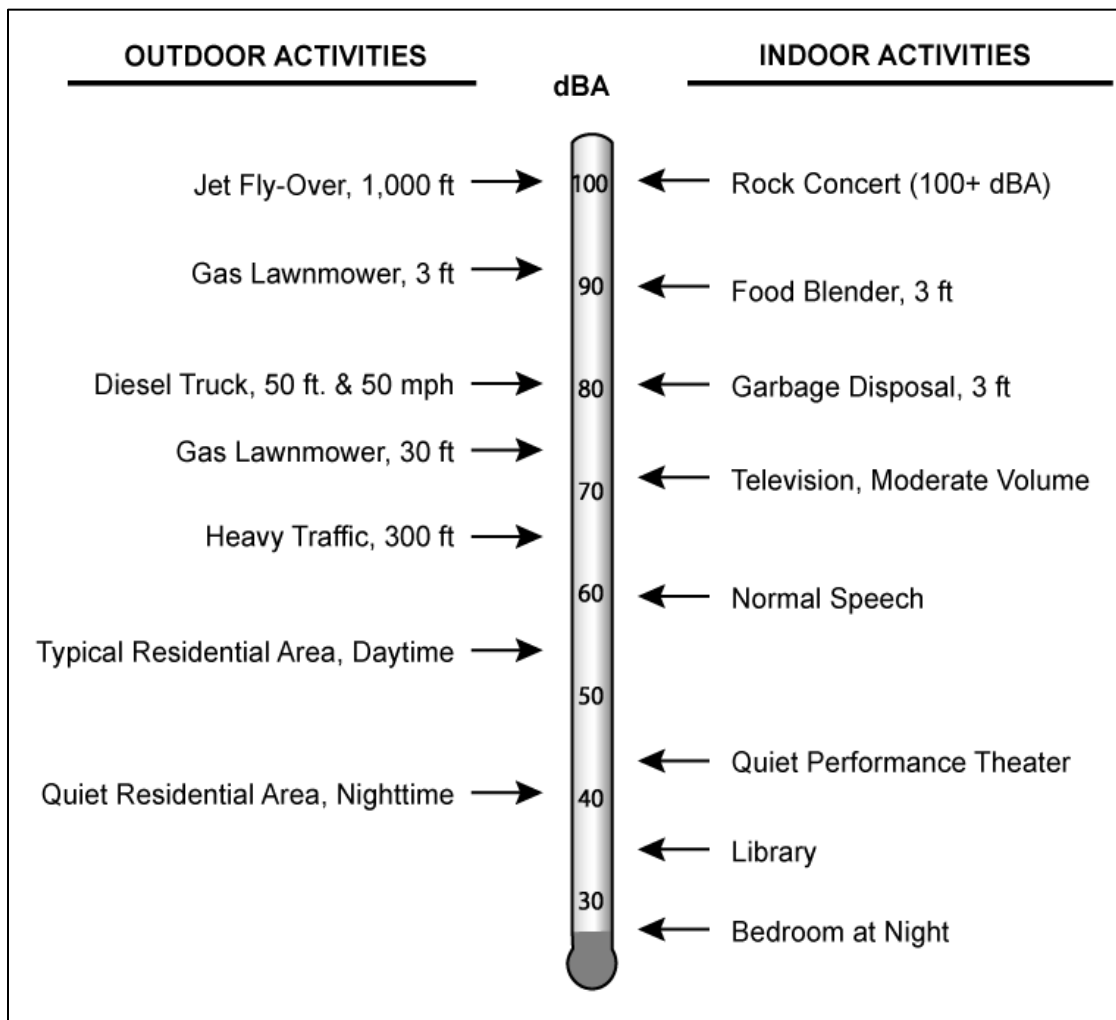
If a louder noise source and a quieter noise source operate simultaneously, the louder source will dominate the overall sound pressure level. For example, if a 20-dB source is added to a 40-dB source, the quieter source will add less than 0.1 dB to the louder source, resulting in a combined sound pressure level that still is approximately 40 dB. As the quieter source gets louder, however, its effect on the combined sound pressure level will increase. If the quieter source increases until it is equal to the louder source, it will add 3 dB to the combined sound level, resulting in an overall sound level of 43 dB.

In a related fashion, humans also perceive changes in sound pressure level logarithmically. Generally, a change in sound level of 6-10 dB may be perceived as a doubling (or halving) of the sound level. Changes in sound level of less than 3 dB are difficult to perceive in an environmental setting.

- **Frequency:** Frequency (pitch) is related to the rate of the small oscillations in air pressure that we perceive as sound, and is expressed in cycles per second, or Hertz (Hz). Human ears can detect a wide range of frequencies from around 20 Hz to 20,000 Hz when we are young, but the upper limit tends to decrease to about 10,000 Hz to 15,000 Hz as we age. Because human hearing is less sensitive at very high and low frequencies, the A-weighting system, which emphasizes mid-range frequencies between about 500 Hz and 10,000 Hz, was developed to correlate with human response to noise. The A-weighted sound level has been widely adopted by acousticians as the

¹⁰ State of Vermont Public Utility Commission, June 26, 2020, p. 1.

most appropriate descriptor for environmental noise. Sound levels that have been measured using A-weighting typically are expressed as “A-weighted decibels” (dBA), or indicated with a subscript such as L_{AS} (A-weighted “slow response” sound pressure level). Figure 1 provides examples of A-weighted sound levels for some typical environmental noise sources.



(Source: Federal Transit Administration, 1995)

Figure 1. Typical A-weighted Environmental Sound Levels

- Time Pattern:** Because environmental noise changes continuously, it is sometimes convenient to describe a particular noise event or source in terms of its maximum sound level (L_{max} or L_{Amax}). While the maximum sound level is useful in describing one aspect of an event or noise source, it provides no information on the duration of the event or the cumulative exposure to a noise source. A common way to account for the cumulative exposure is to express the energy-average of the actual time-varying sound level over a period of time as a single number, called the “equivalent” sound level (L_{eq} or L_{Aeq}). The L_{eq} is the constant or “equivalent” sound level that would contain the same amount of sound energy as the time-varying sound level over the same period. Due to the logarithmic addition of noise sources described above, L_{eq} is influenced strongly by the loudest events that occur during a particular period. Because the L_{eq} represents the changing sound level over a specific interval, such as one hour, an eight-hour workday, or the nine-hour

nighttime period from 10:00 PM until 7:00 AM, it is important that the time period be expressed or understood when using the metric.

2.3. PROJECT NOISE STANDARDS

The primary purpose of the overall monitoring program is to determine whether the Project is operating in compliance with the sound monitoring standards set forth in its CPG. The CPG conditions relevant to Project noise standards are as follows:

Deerfield shall construct and operate the Project so that the turbines emit no prominent discrete tones pursuant to ANSI standards at the receptor locations; and Project-related sound levels at any existing surrounding residences do not exceed 45 dBA (exterior) (L_{eq} , 1 hour) or 30 dBA (interior bedrooms) (L_{eq} , 1 hour).¹¹

As described above in Section 2.1, the PUC has previously ruled that the Project complies with the Amended CPG's sound limits. The purpose of the Fall 2020 measurements is limited to determining whether the residence at Site C is eligible for OINR testing. Specifically, this condition would be met if "Sound monitoring (post-construction) shows Deerfield Project sound levels of 40 dBA (L_{eq}) (1 hr) or higher at that location."¹²

3. METHODOLOGY

3.1. INTRODUCTION

This section of the report provides an overview of the required methodology as provided both in the Protocol and in further guidance from the PUC.

The Protocol includes an outline of the required methodology for both the field measurements and the data processing related to the sound monitoring program. The "Noise Monitoring Plan for Deerfield Wind Project, Final, Revised,"¹³ ("Monitoring Plan," attached to this report as Appendix B), originally developed for the Fall 2018 measurements, provides additional details regarding the logistics of the measurements. In its June 26, 2020 order, the PUC provided the following supplemental guidance for the Fall 2020 measurements:

- At least one hour of valid data, including at least 30 minutes associated with a single shutdown, shall be collected to calculate the one-hour L_{eq} to determine whether OINR testing is required.
- Consistent with the Protocol and the two previous measurement periods, data with wind speeds above 5 m/s should be excluded and periods with wind speeds between 4 and 5 m/s should be reviewed.
- Wind speed data from Turbine W-08 only (the closest turbine to Site C) should be used for the purpose of determining hub-height wind speed.
- The Fall 2020 results are to be reported in two ways: (1) following the procedure utilized in both the Fall 2018 and Spring 2019 Monitoring Reports (i.e., combining data samples associated with different shutdowns, including over multiple days) and (2) reporting only data samples contained within a single one-hour period before or after each shut-down.

¹¹ "Protocol," Section 1.0 "Introduction," p. 1.

¹² "Protocol," Section 2.5 "Outside to Inside Test," p. 6.

¹³ "Noise Monitoring Plan for Deerfield Wind Project, Final, Revised," Prepared for: Vermont Department of Public Service; Prepared by: Cross-Spectrum Acoustics, Inc., October 17, 2018.

- The reporting should include an explanation of what uncertainty factor, if any, is applied to the data.¹⁴

Although the methodology used for the Fall 2020 measurements was similar to that used for the two previous monitoring periods, several modifications were made in response to the PUC’s supplemental guidance. Both the Protocol and the Monitoring Plan may be consulted for further details beyond the overview provided here.

3.2. FIELD MEASUREMENTS

3.2.1. Monitoring Periods

The Protocol requires that the fall and the spring monitoring periods each have a minimum continuous duration of at least two weeks, but may be extended for up to five weeks, if necessary, to obtain sufficient data. The Fall 2020 measurements began on Tuesday, October 20. After confirming that sufficient valid data had been collected, measurements were concluded after 17 days on Friday, November 6.

3.2.2. Monitoring Locations

The Protocol describes the general locations for the three required sound monitoring sites and also states “where monitoring locations are near residential areas, to the extent permission is granted, monitors shall be set near individual homes closest to the Project at these locations. If permission is not granted, then alternative homes shall be contacted, or monitors will be placed in public rights-of-way that are representative of a home, at a similar or lesser distance from the Project.”¹⁵ Based on this guidance and using aerial photo imagery, CSA first selected several candidate locations for each monitoring site prior to the Fall 2018 measurement program. CSA then conducted visits to the project area on October 1, 2018 and October 16, 2018 to field check the candidate sites. Following the site visits, and after receiving additional input from docket holders, CSA selected the three final sites to be used in both the Fall 2018 and Spring 2019 monitoring periods.

The three final sites were selected based upon the guidance in the Protocol; conditions on the ground, including accessibility and distance from local noise sources such as roads; and the ability to gain permission from property owners. In all cases, in accordance with the Protocol, sites were selected that were “at least 7.5 m from any surface where reflections could influence measured sound pressure levels” and were placed in locations “to avoid potential contamination from sources such as flowing water, wind chimes, air conditioners, noise from homes, etc.” In addition, sites were selected such that no “structure blocks the line of sight between the microphone and the wind turbines (if otherwise visible).” Finally, CSA made “every reasonable effort to site microphones in a manner that will maximize the probability of capturing the maximum noise levels at each monitoring location, taking into account all relevant factors such as minimizing line-of-sight obstructions between microphone and the Project, and maximizing the number of turbines in line-of-sight of the microphones at each monitoring location.”¹⁶

Figure 2 provides an overview map showing the general location of Site C and the locations of the Project’s 15 turbines. (Although Figure 2 shows the locations of Site A and Site B from the previous monitoring periods, they were not used during the Fall 2020 measurements.)

¹⁴ State of Vermont Public Utility Commission, June 26, 2020, pages 6-8.

¹⁵ “Protocol,” Section 2.3 “Microphone Locations,” p. 4.

¹⁶ “Protocol,” Section 2.4 “Logistics,” p. 5.

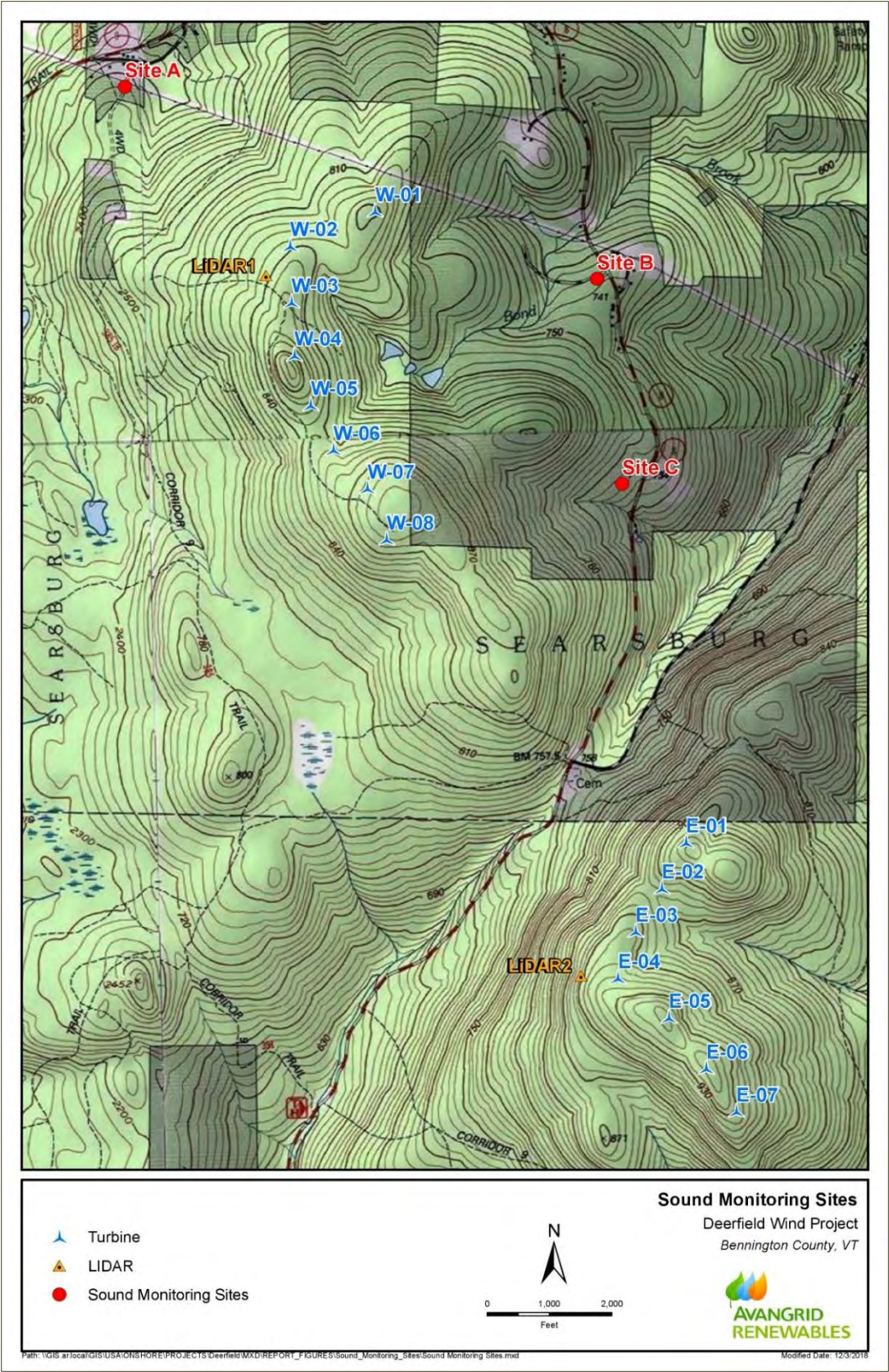


Figure 2. Sound Monitoring Sites and Project Wind Turbines
(Note: Site A and Site B not used during Fall 2020 measurements.)

During the Fall 2020 monitoring, measurements were conducted only at Site C; the location of Site C was the same as used for both the Fall 2018 and Spring 2019 measurements. The Protocol describes Site C as “approximately 0.5 miles north of Sleepy Hollow Road on VT Route 8 in Searsburg, west of Route 8. This site is similar to Site 5 from the preconstruction monitoring.” To be consistent with the Protocol’s guidance that “monitors shall be set near individual homes closest to the Project,”¹⁷ the actual monitoring site was located farther north, approximately 0.9 miles north of Sleepy Hollow Road, at the private residence at 343 VT Route 8. This site represented the closest homes to the east of the Project’s western group of turbines (W-01 through W-08) along this portion of VT Route 8 and was among the closest to the Project’s eastern group of turbines (E-01 through E-07).

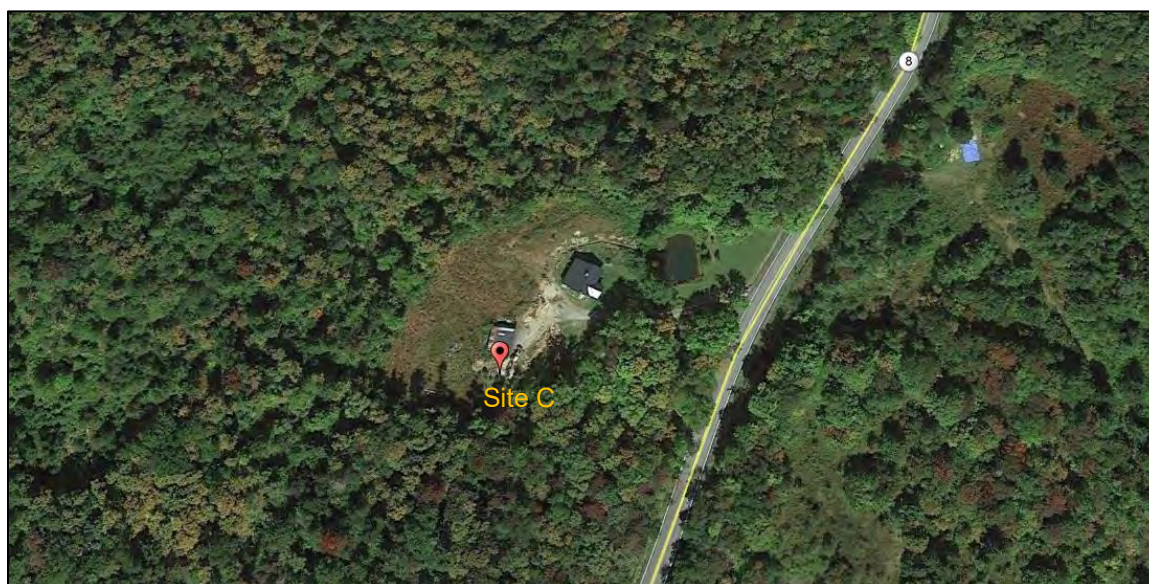
The microphone was located approximately 240 feet from the centerline of VT Route 8 with the closest Project turbines approximately 4,000 to 4,100 feet to the west (W-07 and W-08) and approximately 5,800 feet to the south-southeast (E-01). The closest turbines in the Searsburg Wind Energy Facility operated by Green Mountain Power were approximately 4,100 feet to the southeast of this site. Non-project noise sources at this location included traffic on VT Route 8, the Searsburg wind turbines, activities at the residence such as vehicles entering and leaving the driveway, natural sounds such as wind in the trees, and occasional aircraft overflights.

Table 1 provides a general description of Site C’s location, the approximate latitude and longitude of the site, the property owner, and other relevant notes. Figure 3 shows the location of Site C. Figure 4 and Figure 5 provide photos of the measurement site with the yellow circles indicating the microphone location. Appendix C provides a field data sheet for the measurement location, including site sketch.

Table 1. Fall 2020 Monitoring Site

Monitoring Site	Location	Lat./Long.	Owner	Notes
Site C	343 VT Route 8	42.87274 -72.97124	Tom Shea	Edge of graded area south of barn

Source: CSA



(Basemap Google, 2018)

Figure 3. Site C Location Map

¹⁷Ibid.



Figure 4. Site C, View to West



Figure 5. Site C, View to Northeast

3.2.3. Instrumentation

Sound Monitoring Equipment

Sound level measurements were conducted using an NTi XL-2 portable sound level meter, which meets the ANSI and IEC standards for Class 1 “Precision” sound level meters. The microphone, with a seven-inch hydrophobic windscreen, was mounted on a tripod approximately five feet above ground level. The meter was field calibrated at the start and the conclusion of the measurements and at intervals of every two to three days throughout the monitoring period. In addition, all instruments used for the measurements previously had been calibrated by an independent laboratory with certification traceable to the National Institute of Standards and Technology (NIST). The sound level meter was programmed to collect 1/3 octave band data at one second intervals and to log additional sound level data over 1-hour intervals. In addition, audio recordings were made throughout the monitoring period.

Meteorological Equipment

A weather station was located approximately 20 feet east of the microphone on an approximately five-foot high tripod. The weather station logged temperature, precipitation, wind speed, and wind direction over 1-minute intervals. The internal clock of the weather station was synchronized with the internal clock of the sound level meter.

Appendix D provides a list of all instrumentation used.

3.2.4. Background and Turbine Sound Measurements

Sound level monitoring was conducted at Site C over a period of 17 days from October 20 until November 6, 2020. In addition, meteorological data including wind speed and direction, temperature, and rainfall, were collected at Site C throughout the monitoring period. Brief pauses in data collection occurred every two to three days to download data, change batteries, and conduct calibration checks.

Because it was not possible to measure Project sound levels directly due to the presence of other background noise sources, the Protocol requires that background sound levels must be measured by curtailing operation of the wind turbines at regular intervals, thus allowing a direct comparison between periods with and without turbines operating. To accomplish this, all Project turbines and ancillary equipment were shut down throughout the monitoring program for at least 20 minutes at a time, no less than once per night (10 PM to 7 AM) when hub-height speeds were 6 m/s or above and there was no precipitation in the form of rain, sleet, or ice. These shutdown periods were determined by Avangrid based on actual meteorological conditions and were not predetermined by CSA. Additionally, CSA requested Avangrid to monitor hub-height wind speeds for one hour prior to and one hour after each curtailment. Data were considered for further processing only from curtailments during which hub-height wind speeds for the entire period, beginning one hour before and extending for one hour after the curtailment, were 6 m/s or greater.

During the Fall 2020 measurement program, Avangrid conducted a total of 24 curtailments on 10 separate nights. The 24 curtailments first were screened for eligibility using the turbine data provided by Avangrid. Those curtailments determined eligible for further analysis then were subjected to additional filtering and data processing as described below in Section 3.3 of this report. Table 2 provides a summary of the start and stop times of the curtailments. Appendix E provides 10-minute interval wind speed and electrical output data for each of the 15 Project turbines throughout the monitoring period.

Table 2. Deerfield Wind Operational Curtailments, October 20 – November 6, 2020

Attempt Number	Start Date & Time¹	End Date & Time¹
1	Oct. 21, 11:11 PM	Oct. 21, 11:33 PM
2	Oct. 22, 1:14 AM	Oct. 22, 1:34 AM
3	Oct. 22, 3:30 AM	Oct. 22, 3:50 AM
4	Oct. 23, 12:00 AM	Oct. 23, 12:24 AM
5	Oct. 23, 2:24 AM	Oct. 23, 2:44 AM
6	Oct. 23, 11:01 PM	Oct. 23, 11:21 PM
7	Oct. 24, 4:22 AM	Oct. 24, 4:42 AM
8	Oct. 25, 5:12 AM	Oct. 25, 5:32 AM
9	Oct. 25, 11:03 PM	Oct. 25, 11:23 PM
10	Oct. 26, 1:12 AM	Oct. 26, 1:32 AM
11	Oct. 26, 3:18 AM	Oct. 26, 3:38 AM
12	Oct. 31, 11:00 PM	Oct. 31, 11:20 PM
13	Nov. 1, 1:01 AM	Nov. 1, 1:20 AM
14	Nov. 1, 3:20 AM ²	Nov. 1, 3:40 AM
15	Nov. 1, 11:01 PM	Nov. 1, 11:21 PM
16	Nov. 2, 1:06 AM	Nov. 2, 1:27 AM
17	Nov. 2, 3:11 AM	Nov. 2, 3:31 AM
18	Nov. 4, 3:49 AM	Nov. 4, 4:19 AM
19	Nov. 4, 11:12 PM	Nov. 4, 11:32 PM
20	Nov. 5, 1:43 AM	Nov. 5, 2:03 AM
21	Nov. 5, 4:13 AM	Nov. 5, 4:33 AM
22	Nov. 5, 11:47 PM	Nov. 6, 12:07 AM
23	Nov. 6, 2:12 AM	Nov. 6, 2:32 AM
24	Nov. 6, 4:37 AM	Nov. 6, 4:59 AM
Notes: ¹ Curtailment start and end times in this table are nominal times provided by Avangrid and may differ from more precise times used in the data analysis. ² Daylight Saving Time ended at 2:00 AM On November 1.		

Source: Avangrid

3.2.5. Attended Measurement

The Protocol requires attended monitoring to take place at each monitoring location for one hour before or after at least one turbine shutdown event, with observers making time-stamped notes regarding what they hear and the relative loudness of those sounds. However, for the Fall 2020 measurements, the PUC ruled that “attended sound monitoring is unnecessary provided that audio recordings are made.”¹⁸ Consequently, CSA did not conduct attended monitoring during the Fall 2020 measurements.

¹⁸ State of Vermont Public Utility Commission, June 26, 2020, p. 6.

3.3. DATA PROCESSING

During the Fall 2020 monitoring period, approximately 406 hours of raw data were collected at Site C over 17 days. As discussed above, the Protocol recognizes that it is not possible to measure project-related sound levels directly due to the presence of other background noise sources, and, therefore, provides a procedure for determining project-related sound by comparing overall sound levels (i.e., background sound plus project-related sound) to background-only sound levels (i.e., with use of all project-related equipment curtailed). In addition to the methodology prescribed in the Protocol, the PUC provided supplemental guidance (see Section 3.1). This section of the report describes the steps of the data-processing methodology for determining project-related sound levels as follows:

- Determination of eligible curtailments based on turbine data
- Filtering based on Site C meteorological and acoustical data
- Compilation of results according to two different methods (combined intervals vs. individual intervals) as ordered by the PUC

3.3.1. Determination of Eligible Curtailments Based on Turbine Data

As required by the Protocol, Avangrid provided 10-minute interval hub-height wind speed and power output data for all 15 turbines, and also a log of any operational curtailments (i.e., “turbine-off” periods).¹⁹ Appendix E presents the complete set of turbine data provided by Avangrid.

The wind speed data from Turbine W-08, the closest Project turbine to Site C, were used to identify periods with acceptable hub-height wind speeds of 6 m/s or higher. Only periods with high enough hub-height wind speeds at W-08 were used in the analysis. After confirming that the wind speed was acceptable for each nominal 20-minute “turbine-off” period, the 10-minute intervals for one hour before and one hour after each curtailment were screened, and any intervals during which the average hub-height wind speed was not at least 6 m/s at W-08 were excluded.

In addition to reviewing wind speed data from Turbine W-08, CSA reviewed power output data from all 15 turbines. Although the Protocol does not prescribe power output as an analysis parameter, the power output data confirmed that each curtailment occurred as reported in Avangrid’s curtailment log, and also indicated whether each turbine was operating during the relevant one-hour “turbine-on” intervals before and after each curtailment.

During CSA’s review of the turbine data provided by Avangrid, several issues that potentially could affect the sound monitoring results were identified. CSA subsequently contacted Avangrid, and Avangrid confirmed each of the identified issues. In some cases, the issues were determined by CSA not to have had a significant effect on the related sound monitoring data. In other cases, it was determined that the issues identified in the turbine data may have influenced sound monitoring results. In the latter cases, all potentially-affected periods were excluded from the data analysis. Based on this review of the turbine data, either a portion or all acoustical data from six of the 24 curtailment attempts was excluded from further analysis.

The following list identifies each issue identified during the review and provides the action, if any, taken to resolve it. Appendix F provides further information on excluded intervals.

- *Issue 1:* During one 10-minute interval of the “turbine-on” hour before Curtailment 4, the average hub-height windspeed at Turbine W-08 was less than 6 m/s.

Resolution of Issue 1: See Issue 2.

¹⁹ “Protocol,” Section 4.0 “Reports,” p. 10.

- *Issue 2:* For the entire one-hour “turbine-on” periods both before and after Curtailment 4, Turbine E-01 was offline.

Resolution of Issue 2: Turbine E-01 is the closest turbine in the eastern array to Site C. Due to the possibility that this turbine being offline during “turbine-on” periods could affect the validity of the measured sound level data, Curtailment 4 was excluded from the analysis.

- *Issue 3:* During two 10-minute intervals (20 minutes) of the “turbine-on” hour before Curtailment 5, the average hub-height windspeed at Turbine W-08 was less than 6 m/s.

Resolution of Issue 3: See Issue 4.

- *Issue 4:* For the entire one-hour “turbine-on” periods both before and after Curtailment 5, Turbine E-01 was offline.

Resolution of Issue 4: For reasons cited above (Issue 2), Curtailment 5 was excluded from the analysis.

- *Issue 5:* During four 10-minute intervals (40 minutes) of the hour before Curtailment 8, the average hub-height windspeed at Turbine W-08 was less than 6 m/s.

Resolution of Issue 3: All measurement data from the “turbine-on” hours both before and after Curtailment 8 were excluded from the analysis by the initial filtering for weather conditions. As a result, no additional data were excluded from the analysis due to this issue.

- *Issue 6:* After Curtailment 13, Turbine E-06 did not come back online until approximately 10:40 AM on November 1, approximately seven hours after the end of the curtailment. The extended shutdown of this turbine overlapped the hour of “turbine-on” data after Curtailment 13.

Resolution of Issue 6: Because the other 14 Deerfield turbines were operating normally and because of Site C’s closer proximity to the western array and Turbine E-06’s position near the more distant (southern) end of the eastern array, the absence of Turbine E-06 affected the measured “turbine-on” sound levels at Site C by only an insignificant amount (no more than approximately 0.1 dB). For these reasons, no data were excluded due to this issue.

- *Issue 7:* For the entire one-hour “turbine-on” periods both before and after Curtailment 14, Turbine E-06 was offline.

Resolution of Issue 7: All measurement data from the “turbine-on” hours both before and after Curtailment 14 were excluded from the analysis by the initial filtering for weather conditions. As a result, no additional data were excluded from the analysis due to this issue.

- *Issue 8:* For the entire one-hour “turbine-on” periods both before and after Curtailment 15, Turbine W-06 was offline.

Resolution of Issue 8: Turbine W-06 is one of the three closest turbines in the western array to Site C. Due to the possibility that this turbine being offline during “turbine-on” periods could affect the validity of the measured sound level data, Curtailment 15 was excluded from the analysis.

- *Issue 9:* For the entire one-hour “turbine-on” periods both before and after Curtailment 16, Turbine W-06 was offline.

Resolution of Issue 9: For reasons cited above (Issue 8) Curtailment 16 was excluded from the analysis.

- *Issue 10:* Turbine E-06 was offline for approximately the last 20 minutes of the “turbine-on” hour after Curtailment 16.

Resolution of Issue 10: See Issue 9.

- *Issue 11:* For the entire one-hour “turbine-on” periods both before and after Curtailment 17, Turbine W-06 was offline.

Resolution of Issue 11: For reasons cited above (Issue 8), Curtailment 17 was excluded from the analysis.

- *Issue 12:* Turbine E-02 was slow coming back online (gradually increased in power over 40 minutes) during the one-hour “turbine-on” period after Curtailment 18.

Resolution of Issue 12: Turbine E-02 is one of the two closest turbines in the eastern array to Site C. Due to the possibility that this turbine being offline during “turbine-on” periods could affect the validity of the measured sound level data, the entire “turbine-on” period following Curtailment 18 was excluded from the analysis.

3.3.2. Filtering Based on Site C Meteorological and Acoustical Data

Following the screening using the turbine data provided by Avangrid, the reduced set of eligible curtailments was subjected to filtering using the 1-minute interval meteorological data from the weather station at Site C. In accordance with the Protocol, any periods with temperatures below 14° F, or with precipitation (including rain, sleet, and ice, but not snow) were excluded. From the remaining periods, any intervals during which the wind vector had a non-zero component from the Site C to the nearest turbine (W-08) were considered “upwind” and were excluded. Wind direction leading to “upwind” sound propagation conditions was the most common weather-related cause for exclusion of data, resulting in the total or partial exclusion of acoustical data from 10 curtailments.

Any remaining intervals with maximum wind speeds above 5 m/s at each microphone were flagged for identification and exclusion during the secondary filtering. Similarly, intervals with maximum wind speeds between 4 m/s and 5 m/s were identified for further screening and possible exclusion. In some cases, as when the wind direction varied from minute to minute between “upwind” and “not-upwind,” longer intervals were excluded. Whenever less than half of the nominal interval remained after filtering (i.e., less than 10 minutes for nominal 20-minute “turbine-off” intervals and less than 30 minutes for nominal 60-minute “turbine-on” intervals), the entire interval was excluded from the data analysis. In cases when the entire “turbine-off” interval was excluded, both of the adjacent “turbine-on” periods also were excluded. Appendix F provides the results of the initial filtering, including which intervals were excluded, along with the reason(s) for the exclusion.

After the initial filtering, all remaining periods were subjected to secondary filtering using the 1-second acoustic data. During the secondary filtering, events exceeding 40 dBA were investigated by listening to the audio recording of the event to determine if the cause of the event was related to the Project. The most common events eliminated from the data were traffic passbys on VT Route 8. Although some noise caused by wind gusts was eliminated from the data, in general, noise caused by wind blowing in trees, etc. was not excluded from either the “turbine-on” or “turbine-off” data sets unless the wind gust either created pseudo-noise or wind-induced noise that was judged sufficient to mask wind turbine sound. As required by the Protocol, all periods with wind speeds above 5 m/s at the microphone location were excluded from the data, and periods with wind speeds between 4 m/s and 5 m/s were reviewed for possible wind contamination. Appendix G provides additional information on the secondary filtering for both the “turbine-off” and “turbine-on” intervals of all curtailments not previously excluded by the turbine data or the initial weather filtering. The appendix provides graphs and tables identifying periods that were excluded, along with the reason for each exclusion.

Following the initial and secondary filtering described above, the A-weighted L_{eq} was computed for the remaining portion of each qualifying “turbine-off” period. After all filtering, the A-weighted “turbine-off” L_{eq} , ranging from approximately 14 to 21 minutes in duration, was computed for the remaining portion of each nominal 20-minute curtailment. Similarly, the A-weighted L_{eq} was computed for the remaining portion of each qualifying one-hour interval occurring before or after the adjacent curtailment. Following filtering, the remaining portions of the nominal one-hour long “turbine-on” L_{eq} s ranged from approximately 49 minutes to 60 minutes in length.

Finally, the L_{eq} of each “turbine-on” interval was compared to the L_{eq} of the adjacent “turbine-off” interval. As required by the Protocol, the “turbine-on” L_{eq} was excluded if it was not at least 3 dB higher than the adjacent “turbine-off” L_{eq} .²⁰ For this evaluation, CSA defined an “adjacent” interval as the one-hour period either immediately before or after a qualifying “turbine-off” period.²¹ Following all filtering, six valid “turbine-on” intervals, each of 30 to 60 minutes duration, and corresponding to five separate curtailments remained.

3.3.3. Compilation of Results

As noted above, the PUC provided guidance that the Fall 2020 results were to be reported in two ways:

- 1) Following the procedure utilized in both the Fall 2018 and Spring 2019 Monitoring Reports (i.e., combining data samples associated with different shutdowns, including over multiple days); and
- 2) Reporting only data samples contained within a single one-hour period before or after each shutdown.

Combined Intervals

The first approach, using combined data samples associated with different shutdowns, including over multiple days, is the methodology followed for both the Fall 2018 and Spring 2019 monitoring reports. After all filtering was completed, the remaining “turbine-on” periods were used to compute a single overall “turbine-on” L_{eq} . Similarly, all remaining “turbine-off” periods were used to compute a single overall “turbine-off” L_{eq} . The “turbine-off,” or background, energy-averaged sound level was then logarithmically subtracted from the “turbine-on” energy-averaged sound level to determine the “turbine-only” sound level.²² This approach resulted in a single “turbine-only” L_{eq} sound level for the entire Fall 2020 monitoring period.

Individual Intervals

The second approach was similar to the first, except that results were computed individually for each one-hour “turbine-on” interval. After being subjected to the filtering requirements described above, the PUC guidance required that at least 30 minutes of useable data remained from each “one-hour” interval for the interval to count as a valid 1-hour L_{eq} to assess eligibility for OINR testing. For the Fall 2020 monitoring period, this approach resulted in multiple “turbine-only” sound levels because multiple intervals satisfied all filtering requirements.

²⁰ “Protocol,” Section 3.0 “Data Processing,” p. 9.

²¹ In most cases, the “turbine-on” intervals used in the analysis were separated from the “turbine-off” intervals by approximately one- to three-minute transition periods during which the turbines either shutdown or restarted. For this reason, the “turbine-on” interval *before* a curtailment typically begins slightly more than one hour before the “turbine-off” period. Similarly, the “turbine-on” interval *after* a curtailment typically ends slightly more than one hour after the “turbine-off” period.

²² “Protocol,” Section 3.0 “Data Processing,” p. 9. “The Turbine-only sound level for the monitoring period will be determined by logarithmically subtracting the energy-averaged background sound level for all remaining measurement periods from the energy-averaged measured Turbine-On sound levels for all remaining measurement periods.”

4. MONITORING RESULTS

This section of the report provides the results of the monitoring for A-weighted exterior sound levels in three sub-sections:

- *Overall Results*: Describes the complete set of raw data collected during the Fall 2020 monitoring period.
- *Combined Intervals*: Provides the monitoring results following the “combined intervals” approach described above.
- *Individual Intervals*: Provides the monitoring results following the “individual intervals” approach described above.

As required by the Protocol, all turbine and background sound level values shown in this report are rounded to the nearest whole decibel.²³ Calculations were performed using the actual measured values, and the results rounded prior to inclusion in the report.

4.1. OVERALL RESULTS

During the Fall 2020 monitoring period, approximately 406 hours of raw data were collected at Site C over 17 days. Figure 6 through Figure 8 provide graphs showing 10-minute interval data for L_{eq} sound level, wind speed, and temperature throughout the 17-day period. Although the graphs display 10-minute average values for both the acoustical and weather data, the data analysis, as described in Section 3.3.2, used 1-second interval acoustical data and 1-minute interval weather data.

Each of the three graphs depicts a 7-day period beginning and ending at 12:00 AM on Sunday. The blue line, indicating the 10-minute energy average L_{eq} sound level, shows a typical diurnal pattern with higher sound levels during the day and lower sound levels at night. Over the full monitoring period, 10-minute L_{eq} sound levels ranged from a low of approximately 28 dBA to a high of approximately 63 dBA. As required by the Protocol, all curtailments occurred between 10:00 PM and 7:00 AM when background sound levels generally were lowest.

The black line shows the 10-minute average temperature readings at the measurement site. Temperatures ranged from approximately -10° C to +19° C (15° F to 67° F) with the highest temperatures during the first few days and the lowest occurring on October 31. The gray line shows the 10-minute average wind speed measured at Site C. During the measurements, the average wind speed ranged from 0 m/s to approximately 3 m/s (0 mph to 7 mph). In addition to the average wind speed data shown here, maximum (gust) wind speeds also were recorded at Site C and used in the data processing.

²³“Protocol,” Section 3.0 “Data Processing,” p. 9.

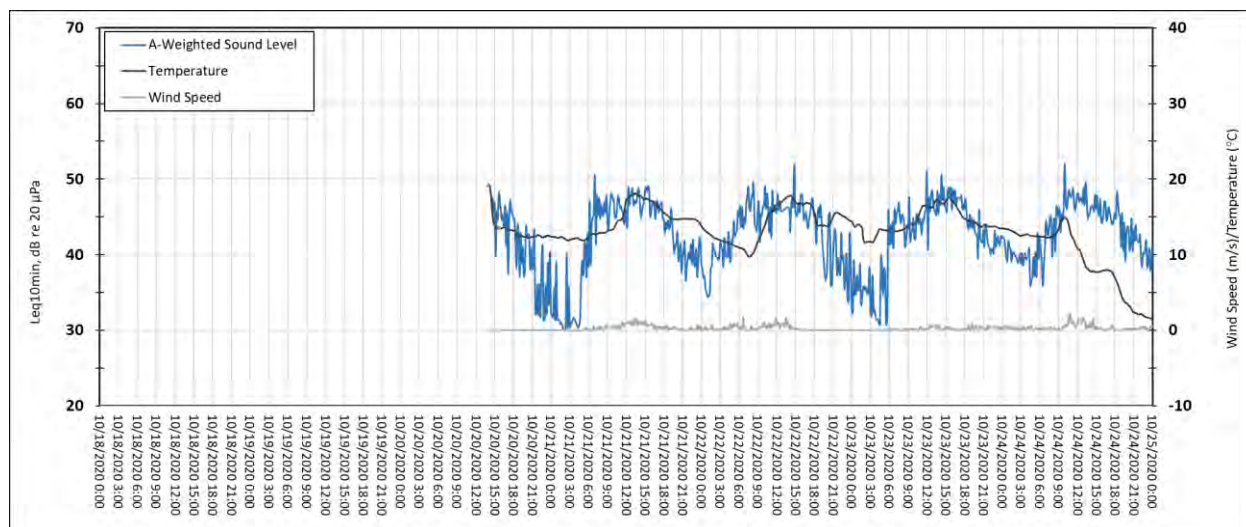


Figure 6. Sound Level and Weather Data: Site C, Oct. 20 – Oct. 24, 2020

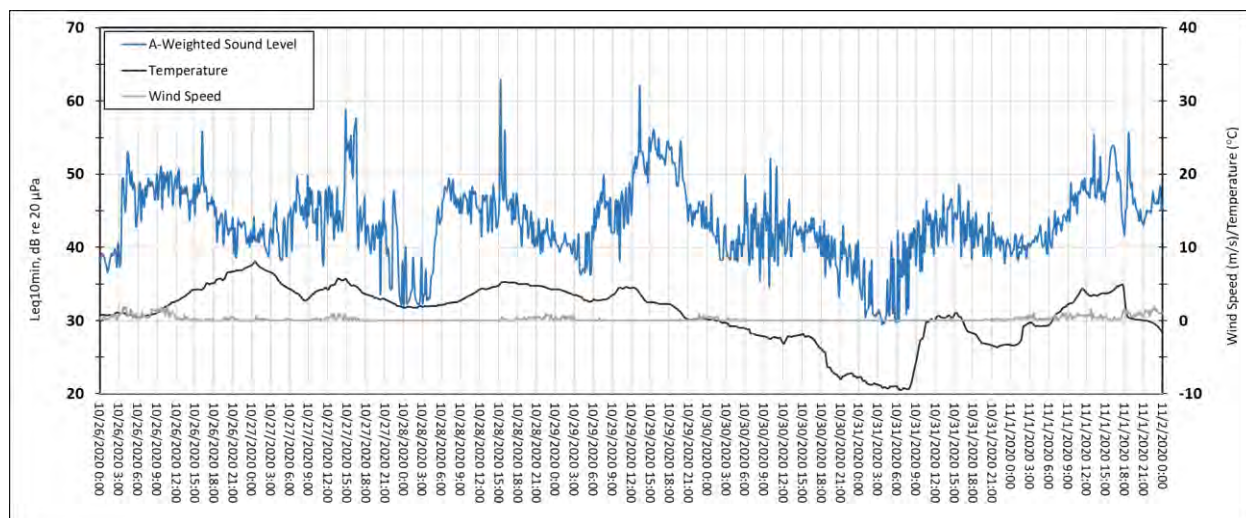


Figure 7. Sound Level and Weather Data: Site C, Oct. 25 – Nov. 1, 2020

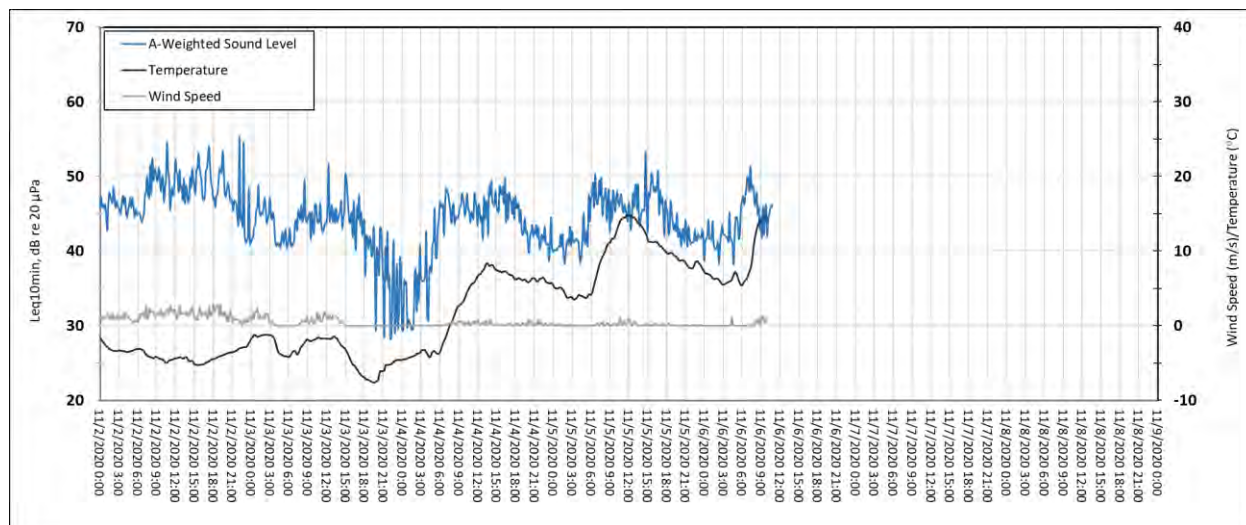


Figure 8. Sound Level and Weather Data: Site C, Nov. 2 – Nov. 6, 2020

During the complete Fall 2020 monitoring period, 24 curtailments were attempted. Figure 9 provides an example of typical sound level data at Site C associated with one turbine curtailment that occurred between about 11:48 PM on November 5 and 12:07 AM on November 6, and the adjacent one-hour periods before and after the curtailment. The five distinct spikes in sound level were caused by individual vehicle passbys on VT Route 8. At this location, approximately 240 feet from the roadway, maximum passby sound levels during this sample ranged between about 52 and 59 dBA.

During the majority of time when vehicles were not present, the “turbine-on” sound level generally ranged from about 40 to 43 dBA during the hour before and the hour following the curtailment (shaded light green on the figure). During the “turbine-off” period between approximately 11:48 PM and 12:07 AM (shaded light red on the figure), the background sound level dropped to about 37 to 40 dBA. Either the “turbine-on” and “turbine-off” sound levels associated with other curtailments may be higher or lower than the sound levels shown for this example.

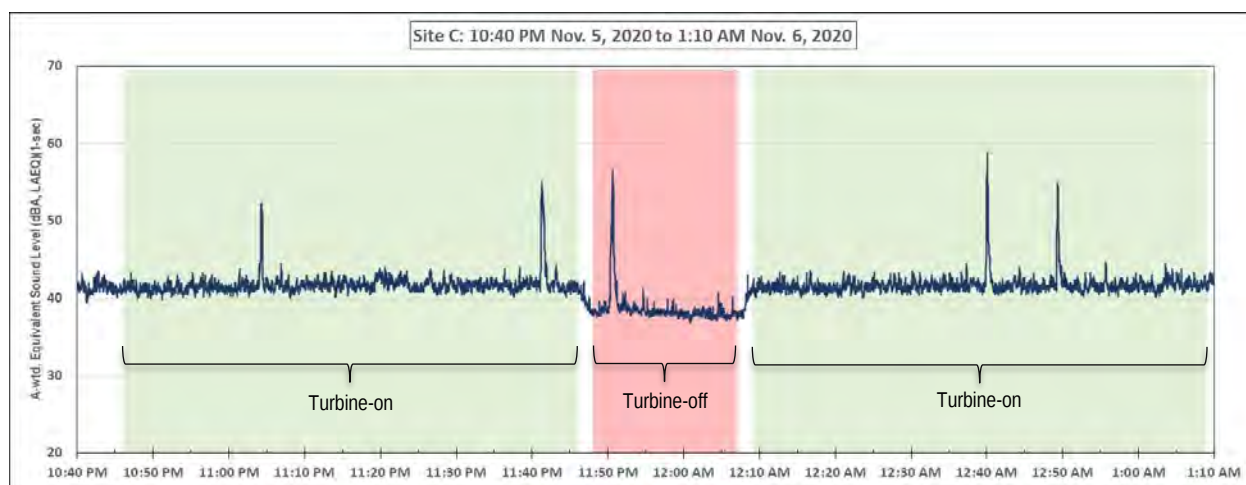


Figure 9. Sound Level Time History Site C, 10:40 PM, Nov. 5, 2020 to 1:10 AM, Nov. 6, 2020

4.2. COMBINED INTERVALS

This section of the report describes data analysis that was conducted similarly to the analysis for both the Fall 2018 and the Spring 2019 monitoring periods. Using this methodology, all valid “turbine-on” intervals were combined mathematically to generate a single “turbine-on” L_{eq} and all valid “turbine-off” intervals were combined mathematically to generate a single “turbine-off” L_{eq} .

The first analysis approach combined all valid sound level data for qualifying “turbine-off” intervals and adjacent qualifying “turbine-on” intervals associated with different shutdowns, including over multiple days. After filtering the data for required weather conditions and removing contaminating events, a single energy-averaged L_{eq} sound level was computed to represent the entire remaining “turbine-on” data at each site. Similarly, one energy-averaged L_{eq} sound level was computed to represent the entire remaining “turbine-off,” or background, data at each site. For each site, the “turbine-off” background sound level then was subtracted logarithmically from the “turbine-on” sound level resulting in an overall “turbine-only” L_{eq} sound level.

During the 17-day monitoring period, six turbine-operation curtailments occurred with valid intervals meeting all screening criteria described in Section 3.3. After further filtering and elimination of contaminating events, five hours and 35 minutes (335 minutes) of “turbine-on” data with an L_{eq} of 41 dBA, and one hour and 33 minutes (93 minutes) of “turbine-off” data with an L_{eq} of 38 dBA remained. The resulting computed “turbine-only” sound level for all intervals combined was 39 dBA. The filtered data exceeded the PUC’s requirement of “at least one hour of valid data, including at least 30 minutes associated with a single shutdown.”²⁴ Table 3 provides a summary of the analysis results for combined intervals.

Table 3. Summary of A-weighted Exterior Sound Levels (Combined Intervals)

“Turbine-on” Sound Level (L_{eq} , dBA)	“Turbine-on” Duration (min.)	“Turbine-off” Sound Level (L_{eq} , dBA)	“Turbine-off” Duration (min.)	“Turbine-only” Sound Level (L_{eq} , dBA)
41	335	38	93	39

Source: CSA

4.3. INDIVIDUAL INTERVALS

This section of the report describes data analysis that was conducted reporting only data samples contained within a single one-hour period before or after each shut-down.

The second analysis approach computed individual results for each valid one-hour “turbine-on” interval. After being subject to the filtering requirements described above, the PUC guidance required that at least 30 minutes of useable data remained from each “one-hour” interval for the interval to count as a valid 1-hour L_{eq} to assess eligibility for OINR testing. For the Fall 2020 monitoring period, this approach resulted in six “turbine-only” sound intervals associated with five separate curtailments.

During the 17-day monitoring period, five turbine-operation curtailments occurred with valid intervals meeting all screening criteria described in Section 3.3. After further filtering and elimination of contaminating events, six “turbine-on” intervals remained with durations of 49 to 60 minutes and L_{eq} sound levels of 40 to 42 dBA. Each of the six “turbine-on” intervals was associated with one of five “turbine-off” intervals with durations ranging from 14 to 21 minutes and L_{eq} sound levels of 36 to 38

²⁴ State of Vermont Public Utility Commission, June 26, 2020, p. 6.

dB(A). For the first of the six intervals, the “turbine-only” L_{eq} sound level was 37 dB(A). For each of the remaining five intervals, the “turbine-only” L_{eq} sound level was 39 dB(A). Therefore, the highest L_{eq} result for the individual interval methodology was 39 dB(A). Table 4 provides a summary of the analysis results for individual intervals.

Table 4. Summary of A-weighted Exterior Sound Levels (Individual Intervals)

Monitoring Interval	“Turbine-on” Sound Level (L_{eq}, dBA)	“Turbine-on” Duration (min.)	“Turbine-off” Sound Level (L_{eq}, dBA)	“Turbine-off” Duration (min.)	“Turbine-only” Sound Level (L_{eq}, dBA)
Hour before Curtailment 7	40	49	36	14	37
Hour before Curtailment 21	41	60	38	20	39
Hour before Curtailment 22	42	58	38	18 ¹	39
Hour after Curtailment 22	42	58	38	18 ¹	39
Hour after Curtailment 23	42	58	38	20	39
Hour before Curtailment 24	42	52	38	21	39
¹ Note: “Turbine-off” interval is the same for “Hour before Curtailment 22” and “Hour after Curtailment 22.” Although the same “Turbine-off” interval is shown twice in Table 4 (corresponding to the two “Turbine-on” intervals associated with the curtailment), the contribution to the overall “Turbine-off” L_{eq} is included only once in the Table 3 summations.					

Source: CSA

4.4. UNCERTAINTY FACTORS

4.4.1. Introduction

The PUC's June 26, 2020 order stated that reporting for the Fall 2020 monitoring "should also include an explanation of what uncertainty factor, if any, is applied to the data."²⁵ The Protocol, however, provides neither a requirement nor guidance regarding the inclusion of uncertainty factors. In lieu of guidance from the Protocol, American National Standards Institute (ANSI) Standard S12.9 "Quantities and Procedures for Description and Measurement of Environmental Sound"^{26, 27} includes discussions of accuracy and uncertainty factors that potentially could be applied to the Fall 2020 measurement results. It should be noted that the Protocol does not refer to ANSI S12.9 nor does it require its use. Additionally, portions of ANSI S12.9 may conflict with methodology included in the Protocol. For these reasons, the guidance from ANSI S12.9 provided here is intended to be for informational purposes only.

ANSI S12.9 includes two separate parts related to different types of environmental sound measurements:

- *Part 2, Measurement of long-term, wide area sound:* "describes recommended procedures for measurement of long-term, time-average environmental sound outdoors at one or more locations in a community for environmental assessment or planning for compatible land uses and for purposes such as noise prediction validation and regulation."²⁸
- *Part 3, Short-term measurements with an observer present:* "describes recommended procedures for measurement of short-term, time-average environmental sound outdoors at one or more locations in a community for environmental assessment or planning for compatible land uses and for other purposes such as demonstrating compliance with a regulation. These measurements are distinguished by the requirement to have an observer present."²⁹

Part 2 and Part 3, respectively, of ANSI S12.9 include guidance regarding "accuracy" (Part 2) and "uncertainty factor" (Part 3). Each of these is discussed below.

4.4.2. ANSI S12.9 Part 2 (Long-term measurements)

ANSI S12.9 Part 2 does not provide guidance for estimating uncertainty factors. Instead, the Standard provides requirements for the design of measurement programs needed to obtain results that are within stated accuracy limits. The Standard's "Class A" and "Class B" surveys are designed to achieve both spatial and temporal accuracy within specified limits with confidence intervals of 95%.³⁰ Because the Protocol does not appear to have been designed pursuant to these requirements, it is difficult to apply the accuracy limits of either the "Class A" or Class B" surveys retroactively.

The Standard's "Class C" survey, however, "is designed to define an upper limit to the environmental sound levels, the highest level or worst case."³¹ Accordingly, the Standard provides guidance on the specific conditions required for "Class C" measurements. Many of the requirements from the Standard are

²⁵ State of Vermont Public Utility Commission, June 26, 2020, p. 8.

²⁶ American National Standard "Quantities and Procedures for Description and Measurement of Environmental Sound. Part 2: Measurement of long-term, wide area sound," ANSI/ASA S12.9-1992/Part 2, reaffirmed by ANSI March 13, 2003 and April 21, 2008.

²⁷ American National Standard "Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-term Measurements with an Observer Present," ANSI/ASA S12.9-2013/Part 3, reaffirmed by ANSI June 29, 2018.

²⁸ ANSI S12.9-1992/Part 2, Introduction, p. 1.

²⁹ ANSI S12.9-2013/Part 3, Abstract.

³⁰ ANSI S12.9-1992/Part 2, Section 5.7 "Accuracy," p. 4.

³¹ ANSI S12.9-1992/Part 2, Section 9.7 "Class C Measurements," p. 12.

consistent either with the Protocol's requirements, or the actual conditions under which the Fall 2020 measurements were conducted, including the following:

- the distance from primary sound source(s) to the measurement site is less than 3 km (2 miles);
- the measurement site shall be downwind of the primary source(s), or under equivalent propagation conditions; and
- the measurements shall be conducted on a typical, active day for operation of the sound source(s).³²

The Protocol also includes requirements consistent with a “highest level or worst case” measurement, including the following:

- “monitors shall be set near individual homes closest to the Project;”³³
- “microphones shall not be placed such that any structure blocks the line of sight between the microphones and the wind turbines;”³⁴
- “the contractor will make every reasonable effort to site microphones in a manner that will maximize the probability of capturing the maximum noise levels at each monitoring location;”³⁵
- curtailments are to occur only when hub-height wind speeds are 6 m/s or above, “in order to ensure that the turbines would be operating at or near their maximum sound output;”³⁶

In this respect, the Fall 2020 measurements were similar to an ANSI S12.9 Part 2 “Class C” measurement, and therefore, the measured L_{eq} sound level of 39 dBA may be interpreted as the highest or worst-case sound level that would be expected under typical conditions.

4.4.3. ANSI S12.9 Part 3 (Short-term measurements)

ANSI S12.9 Part 3 provides specific guidance for estimating uncertainty factors related to short-term measurements. Similar to the Protocol, ANSI S12.9 Part 3 provides a procedure for subtracting the background sound level by temporarily turning off the noise source of interest. For such measurements, an uncertainty factor may be determined based on the relationship of the “source-off” measurement to the “source-on” measurement, including temporal and spatial proximity of the two measurements and use of the same or different measurement instruments.

The methodology employed to determine the background sound level during the Fall 2020 measurements was consistent with the following set of conditions provided in ANSI S12.9 Part 3:

“With the source(s) off, measure the equivalent-continuous sound pressure of the background sound within the hour before or within the hour after measurement of the source at the location of the source(s) measurements, with the same sound pressure level measuring instruments, and with the same instrument settings. The uncertainty factor to be used . . . is 1.5 dB.”³⁷

The Standard further states:

- (a) If one's purpose in making measurements is to demonstrate compliance, then the tolerance (i.e., the uncertainty factor) shall be subtracted from the measured background sound levels . . .

³² Ibid.

³³ “Protocol,” Section 2.3 “Microphone Locations,” p. 4.

³⁴ “Protocol,” Section 2.4 “Logistics,” p. 5.

³⁵ Ibid.

³⁶ “Protocol,” Section 2.6 “Background Sound Measurements,” p. 7.

³⁷ ANSI S12.9-2013/Part 3, Section 7.3.3 “Direct measurement of the equivalent-continuous background sound pressure level,” p. 17.

- (b) If one’s purpose in making measurements is to determine a violation, then the tolerance shall be added to the measured background levels . . .³⁸

The first option provides a more conservative (i.e., higher) “turbine-only” sound level, while the second option provides a lower “turbine-only” sound level. Table 5 provides a summary of the analysis results for individual curtailments with the applicable ANSI S12.9 Part 3 uncertainty factor of 1.5 dB applied. Like Table 4, Table 5 shows the analysis results for each of the six qualifying “turbine-on” intervals. For each curtailment, the table shows the uncertainty factor of 1.5 dB both subtracted from and added to the “turbine-off” sound levels from Table 4. The resultant range of “turbine-off” sound levels was used to compute the “turbine-only” sound levels shown in the last column ranging from 36 to 40 dBA, L_{eq} .

Table 5. Summary of A-weighted Exterior Sound Levels with Uncertainty Factors (Individual Intervals)

Monitoring Interval	“Turbine-on” Sound Level (L_{eq} , dBA)	“Turbine-off” Sound Level (L_{eq} , dBA)	Uncertainty Factor ¹ (dB)	“Turbine-off” Sound Level <u>minus</u> Uncertainty Factor (L_{eq} , dBA)	“Turbine-off” Sound Level <u>plus</u> Uncertainty Factor (L_{eq} , dBA)	“Turbine-only” Sound Level Range (L_{eq} , dBA)
Hour before Curtailment 7	40	36	1.5	34	37	36 – 38
Hour before Curtailment 21	41	38	1.5	37	40	36 – 40
Hour before Curtailment 22	42	38	1.5	37	40	37 – 40
Hour after Curtailment 22	42	38	1.5	37	40	37 – 40
Hour after Curtailment 23	42	38	1.5	37	40	38 – 40
Hour before Curtailment 24	42	38	1.5	37	40	36 – 40

¹Note: “Uncertainty Factor” from ANSI S12.9-2013 Part 3, Sec. 7.3.3 (b) applied to “turbine-off” sound levels as per Sec. 7.3.2 (a) and (b).

Source: CSA and ANSI S12.9-2013 Part 3

5. CONCLUSIONS

Monitoring Results

The Fall 2020 monitoring program was conducted from October 20 until November 6, 2020. Out of 24 turbine-operation curtailments attempted during the 17-day monitoring period, five curtailments occurred with six valid intervals meeting all applicable screening criteria. The six valid intervals exceeded the minimum requirement of at least one hour of valid data, including at least 30 minutes associated with a single shutdown.

Based on the methodology provided in the Protocol, and following additional guidance provided by the PUC, the measurement results were analyzed with respect to the eligibility threshold for OINR

³⁸ ANSI S12.9-2013/Part 3, Section 7.3.2, p. 16.

measurements of 40 dBA (L_{eq}) (1 hr) or higher. As required by the PUC, the results were compiled and reported in two ways:

- 1) Following the procedure utilized in both the Fall 2018 and Spring 2019 Monitoring Reports (i.e., combining data samples associated with different shutdowns, including over multiple days); and
- 2) Reporting only data samples contained within a single one-hour period before or after each shutdown.

The results for the two reporting methodologies were as follows:

Combined intervals: During the 17 days of monitoring, valid data was obtained from five curtailments, including five hours and 35 minutes (335 minutes) of “turbine-on” data with a combined L_{eq} of 41 dBA, and one hour and 33 minutes (93 minutes) of “turbine-off” data with a combined L_{eq} of 38 dBA. The resulting “turbine-only” sound level for all intervals combined was 39 dBA, L_{eq} .

Individual intervals: After all filtering and exclusion of contaminating events, six “turbine-on” intervals remained with durations of 49 to 60 minutes and L_{eq} sound levels of 40 to 42 dBA. Each of the six “turbine-on” intervals was associated with one of five “turbine-off” intervals with durations ranging from 14 to 21 minutes and L_{eq} sound levels of 36 to 38 dBA. For the six intervals, the “turbine-only” L_{eq} sound levels ranged from 37 to 39 dBA, with a measured sound level of 39 dBA, L_{eq} during five of the six intervals. Therefore, the highest L_{eq} result for the individual interval methodology was 39 dBA.

In summary, based on the measurements and analysis described in this report and conducted in accordance with the Protocol and additional guidance from the PUC, the “turbine-only” sound level at Site C during the Fall 2020 monitoring period was 39 dBA, L_{eq} .

Uncertainty Factors

The PUC’s June 26, 2020 order required that reporting for the Fall 2020 monitoring “should also include an explanation of what uncertainty factor, if any, is applied to the data.”³⁹ Because the Protocol provides neither a requirement nor guidance regarding the inclusion of uncertainty factors, American National Standards Institute (ANSI) Standard S12.9 “Quantities and Procedures for Description and Measurement of Environmental Sound” Parts 2 and 3 were consulted for guidance.

ANSI S12.9 Part 2 includes a “Class C” survey which is designed to define an upper limit (i.e., the highest level or worst case) to the measured environmental sound levels. In this respect, the Fall 2020 measurements were similar to an ANSI S12.9 Part 2 “Class C” measurement, and therefore, the measured L_{eq} sound level of 39 dBA may be interpreted as the highest or worst-case sound level that would be expected under typical conditions.

ANSI S12.9 Part 3 provides specific guidance for estimating uncertainty factors related to short-term measurements. The uncertainty factors are applied to the measured background sound level (“turbine-off” periods) prior to computing the source-only (“turbine-only”) sound level. Using this methodology, the resulting “turbine-only” sound levels for the six individual “turbine-on” intervals, including relevant uncertainty factors, ranged from 36 to 40 dBA, L_{eq} .

It should be noted that the Protocol does not refer to ANSI S12.9 nor does it require its use. Additionally, portions of ANSI S12.9 may conflict with methodology included in the Protocol. For these reasons, the guidance from ANSI S12.9 provided here is intended for informational purposes only.

³⁹ State of Vermont Public Utility Commission, June 26, 2020, p. 8.

APPENDIX A – FINAL SOUND MONITORING PROTOCOL FOR DEERFIELD WIND



FINAL SOUND MONITORING PROTOCOL FOR DEERFIELD WIND

Corrected 1.16.2018



55 Railroad Row
White River Junction, VT 05001
802.295.4999
www.rsginc.com

PREPARED FOR:
DEERFIELD WIND, LLC

SUBMITTED BY:
RSG



**FINAL SOUND MONITORING PROTOCOL FOR
DEERFIELD WIND**

**PREPARED FOR:
DEERFIELD WIND, LLC**

CONTENTS

1.0 INTRODUCTION..... 1

2.0 FIRST YEAR MONITORING PLAN 2

2.1 | Monitoring Contractor 2

2.2 | Duration and Frequency 2

2.3 | Microphone Locations 3

2.4 | Logistics..... 5

2.5 | Outside to Inside Test..... 6

2.6 | Background Sound Measurements 7

2.7 | Attended measurement 7

3.0 DATA PROCESSING 8

4.0 REPORTS..... 10

5.0 COMPLAINT RESOLUTION 11

List of Figures

FIGURE 1: POTENTIAL POST-CONSTRUCTION SITES..... 3



1.0 INTRODUCTION

The Vermont Public Utility Commission (“PUC” or “Commission”) (formerly the Public Service Board) issued a revised Certificate of Public Good (CPG) for the Deerfield Wind Project (Docket #7250) (the “Project”) on July 17, 2009. As part of the CPG, post-construction sound monitoring is required to assure conformance with the Project’s CPG noise standards. The conditions of the CPG related to the monitoring condition are:

28. Deerfield shall construct and operate the Project so that the turbines emit no prominent discrete tones pursuant to ANSI standards at the receptor locations; and Project- related sound levels at any existing surrounding residences do not exceed 45 dBA(exterior)(Leq)(1 hr) or 30 dBA (interior bedrooms)(Leq)(1 hr).
29. In the event noise from operation of the Project exceeds the maximum allowable levels, Deerfield shall take all remedial steps necessary to bring the sound levels produced by the turbine(s) into compliance with allowable levels, including modification or cessation of turbine(s) operation.
30. Deerfield shall submit to the [Commission] for review and approval a noise monitoring plan to be implemented during the first full year of operation. The plan shall establish a monitoring program to confirm under a variety of seasonal and climactic conditions compliance with the maximum allowable sound levels described above.

This report describes a monitoring plan that meets the conditions of the CPG.



2.0 FIRST YEAR MONITORING PLAN

2.1 | MONITORING CONTRACTOR

A State of Vermont agency will select and supervise a contractor to conduct the sound monitoring, subject to the Commission's approval. The minimum qualifications shall be:

- Experience with short-term attended and long-term sound compliance monitoring at wind projects.
- Experience with cold-temperature sound monitoring.
- Experience with the methodologies outlined in this Protocol.
- Board Certification through the Institute of Noise Control Engineering.

Costs for the sound monitoring contractor shall be borne by Deerfield Wind LLC.

2.2 | DURATION AND FREQUENCY

Each of the two seasonal monitoring periods shall be a continuous period at least two weeks in duration, and meant to capture a variety of meteorological and seasonal conditions. Each monitoring period can be extended for up to 5 weeks in total if necessary to client sufficient valid data to determine Project-only sound levels.

In selecting the monitoring periods, the following shall be considered:

- Whether turbines will be out of service, the length of the outage, and whether the combination of the location of the turbines and length of outages would substantially affect the results of the sound monitoring.
- Whether forecasted heavy rains or storms comprise more than 50 percent of the first two-week period.
- Whether normal operations are expected to be affected by safety concerns, grid reliability, or other issues.

This Protocol acknowledges that many of these factors cannot be forecast in advance with certainty, and therefore the presence of these conditions during monitoring periods may occur despite the best efforts of Deerfield Wind and the sound monitoring consultant. Any departure from ideal monitoring conditions shall be noted in the report.

One period of monitoring will take place during each of spring, and fall, over the first year that the Project is commercially operating. The first year, for the purposes of this monitoring, shall be defined as the first year with two full spring and fall seasons. For example, if construction concludes at the end of spring, the first year will start at the beginning of that fall through the end of spring the next year.

2.3 | MICROPHONE LOCATIONS

Sound monitoring is proposed for three locations, representing unique soundscapes around the Project. As shown on Figure 1 below, Site A is representative of the closest homes along VT 9, and Sites B and C are representative of the closest homes along VT 8.

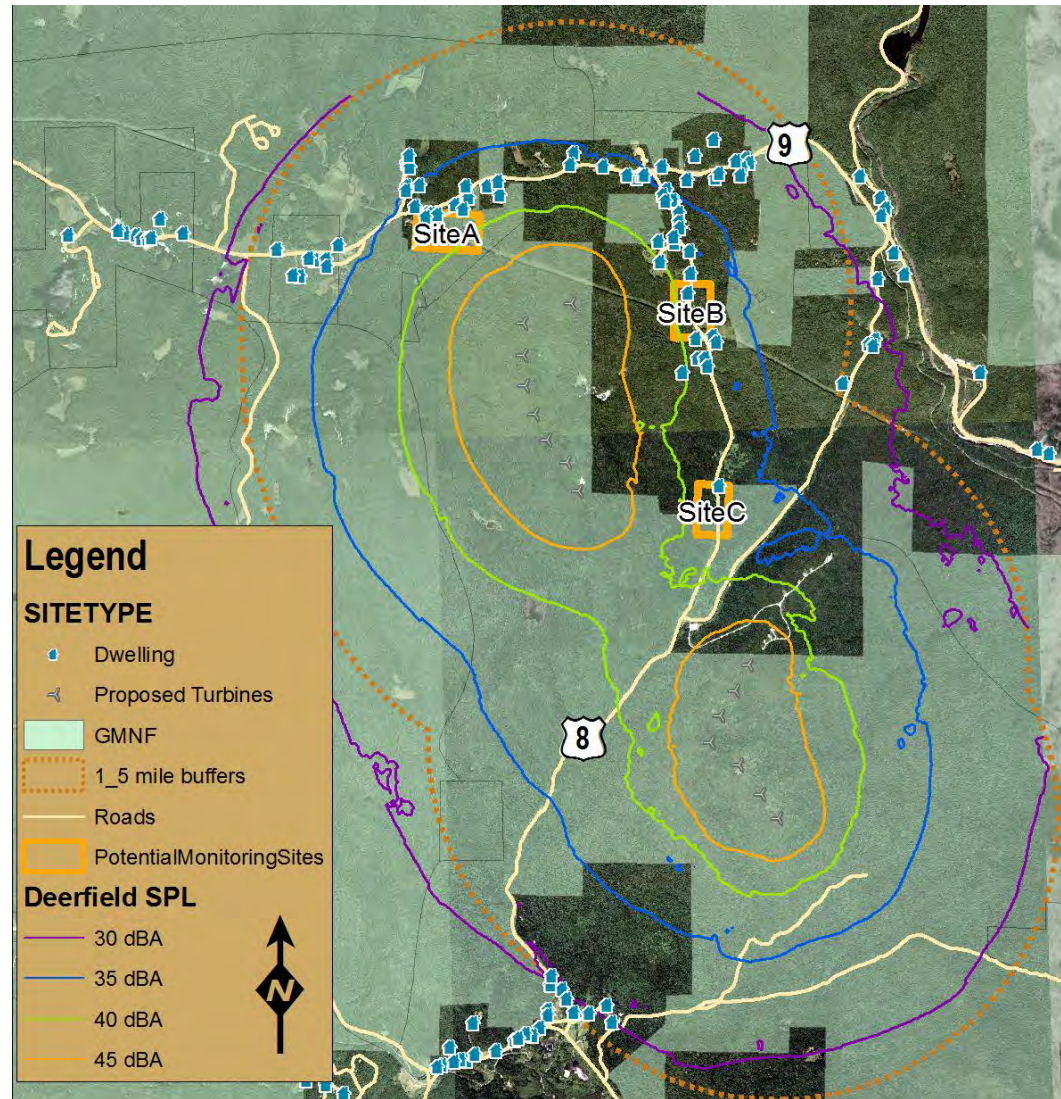


FIGURE 1: POTENTIAL POST-CONSTRUCTION SITES AND MODELED SOUND CONTOURS BASED ON AS-APPROVED FINAL DESIGN PLANS (SUBMITTED TO PUC ON 6/1/15)

- A) Site A is located south of Old Route 9, east of Bishop Hill Road, and south of VT Route 9 in Searsburg. This area is representative of sound impacts to the north of the Project, and would be as far off of VT 9 as practical. This is

similar in location to Site 2 from the pre-construction monitoring,¹ and is representative of the closest homes and highest sound impacts.

- B) Site B is located near the transmission line that crosses VT Route 8 approximately 1.3 km (0.8 miles) south of the VT 8/VT 9 intersection in Searsburg and west of VT Route 8, and extending north to 149 VT Route 8, just north of the transmission line. This is similar to Site 4 from the pre-construction monitoring, and is representative of the closest homes to the east of the project.
- C) Site C is located approximately 0.5 miles north of Sleepy Hollow Road on VT Route 8 in Searsburg, west of Route 8. This site is roughly equidistant between the Deerfield and Searsburg turbines. The Site includes the two closest homes to the north. This is similar to Site 5 from the pre-construction monitoring, and is representative of the highest combined noise impacts of Searsburg and Deerfield combined.

Monitoring sites are not proposed for the west or south, as there are no nearby homes in these directions, i.e., within a 1.5 mile radius. Beyond that distance, the modeled sound levels are generally less than 30 dBA, and thus do not present a reasonable likelihood of exceeding the CPG sound limit.

Where monitoring locations are near residential areas, to the extent permission is granted, monitors shall be set near individual homes closest to the Project at these locations. If permission is not granted, then alternative homes shall be contacted, or monitors will be placed in public rights-of-way that are representative of a home, at a similar or lesser distance from the Project.

To the extent possible, the sound monitors should be located away from roads to avoid background sound contamination. However, the setback distance from roads should still be representative of the closest home or homes.

Up to three additional monitoring locations may be selected in response to noise complaints made prior to the beginning of the last monitoring period, provided any such addition location is materially different than the locations already being monitored, and that it is within the 30 dBA (exterior) contour.

¹ RSG, "Revised Noise Impact Study for: Deerfield Wind Project, Searsburg/ Readsboro, VT," November 2007 (Exhibit DFLD-KK-4)

Final monitoring locations will be selected by the sound monitoring consultant. When the sites have been selected and the consultant has conveyed them to Deerfield Wind, Deerfield Wind shall file a map with the Commission showing these monitoring, turbine, and met tower locations.

2.4 | LOGISTICS

The location of the microphones shall be chosen on site and based on the following list of site condition priorities:

- 1) Microphones shall be located at least 7.5 m from any surface where reflections may influence the measured sound pressure levels. Microphones shall be placed in a location to avoid potential noise contamination from sources such as flowing water, wind chimes, air conditioners, noises from homes, etc.
- 2) Microphones shall be placed at a height approximately 4 to 5 feet above grade.
- 3) Microphones shall not be placed such that any structure blocks the line of sight between the microphone and wind turbines (if otherwise visible).
- 4) The Contractor will make every reasonable effort to site microphones in a manner that will maximize the probability of capturing the maximum noise levels at each monitoring location, taking into account all relevant factors such as minimizing line-of-sight obstructions between microphones and the Project, and maximizing the number of turbines in line-of-sight of the microphones at each monitoring location.
- 5) Appropriate wind screens should be used. For long-term monitoring in windy conditions, seven-inch hydrophobic wind screens or equivalent should be used.

In some cases, these limitations may mean that the best monitoring location for a specific residence may be several hundred feet away from the primary residential structure. Every effort shall be made to ensure that locations selected are representative of the noise exposure at subject homes.

Sites will include meteorological instrumentation logging data in no more than 10-minute increments, which can include one or more of the following:

- Anemometer (all sites)
- Wind vane (one site)
- Temperature sensor (one site)
- Rain sensor (one site)

All sound level meters will meet IEC Type 1 or better specifications for accuracy, and will be calibrated before and after each measurement period. All monitors will collect 1/3 octave band data from 20 Hz to 10 kHz at one-second logging intervals and audio recordings where permission is granted by the property owner. To protect the privacy of neighbors, audio



recordings shall be released to the PUC upon request and only under a confidentiality agreement or with permission of the homeowner. In all cases, the user of the audio may not disclose the content of private conversations that may have been inadvertently captured.

2.5 | OUTSIDE TO INSIDE TEST

Sound tests of turbine operations will be limited to exterior measurements. This is because the 30 dB interior limit established by the PUC is sufficiently low that the sound test is easily contaminated by normal activities that occur indoors. In addition, frequent sound monitoring inside a bedroom is intrusive. To minimize the impact to residents, interior sound levels will be calculated based on a fixed 15 dBA reduction. However, the homeowner will be given the option to allow for testing to be conducted to determine the actual outside to inside noise reduction (OINR) of the house, if that home meets the following criteria:

- 1) The preconstruction sound model shows Deerfield Project sound levels of 40 dBA or higher at that location; or
- 2) Sound monitoring (post-construction) shows Deerfield Project sound levels of 40 dBA(Leq)(1 hr) or higher at that location.

Deerfield Wind shall offer OINR testing to homeowners who meet Criterion 1 at the outset of commercial operations, and to homeowners who meet Criterion 2 based upon the first year of post-construction monitoring.

An OINR test is used to establish the noise reduction from the outside to the inside of a house. The test will be conducted in accordance with ASTM Standard E966-10, *Standard Guide for Field Measurement of Airborne Sound Insulation of Building Facades and Façade Elements (2010)*.² Any deviations from the standard necessitated by field conditions will be detailed in the report. The OINR test will be limited to a single fully-furnished occupied bedroom facing the Project at each home.

If a homeowner who meets one of these criteria initially declines OINR testing, an attenuation of 15 dBA will be assumed. However, if a homeowner who initially declined OINR testing subsequently files a complaint, that homeowner shall again be offered OINR testing at Deerfield's expense.

Tests will be conducted if permission is granted by the homeowner, with windows closed, one quarter open, and fully open. The sound monitoring consultant should ask the

² The E966 standard is copyrighted. For those who wish to review the standard, but not purchase it, one can be made available for review at RSG offices.

complainant about their window opening patterns throughout the year, and should use the complainant's response as the basis for the window-position assumption.

2.6 | BACKGROUND SOUND MEASUREMENTS

To accurately measure the sound level of the wind turbines, background sound levels must be excluded. This will be accomplished by turning off wind turbines at regular intervals. Turning off wind turbines allows a direct comparison between periods with and without turbines operating.

During the measurement program, the turbines will be shut down for 20 minutes at a time no less once per night (10 pm to 7 am) where hub height wind speeds are at 6 m/s or above, in order to ensure that the turbines would be operating at or near their maximum sound output before and after each shutdown (assuming the wind conditions remain relatively constant over that period). It is understood that wind speeds may change considerably around the shutdown times and may not be consistently high among all turbines. A greater number of turbine shutdowns may occur, with turbine shutdowns to occur as needed in order to collect sufficient turbine-off data needed to accurately determine background sound levels.

Individual contaminating events may be manually filtered or otherwise removed from the data set. These events include, but are not limited to traffic passbys, insects, property maintenance, gunshots, land clearing, voices, etc. This is described further in Section 3. Insects and birds may also be filtered by subtracting out sound at and above 1.6 kHz (a.k.a., “Ai” weighting).

The sound engineer conducting the testing may modify the background sound methodology for good cause. If such modification is made, a description of the good cause and the modifications that were made shall be included in the sound monitoring report.

2.7 | ATTENDED MEASUREMENT

For one hour before or after at least one turbine shutdown event, attended monitoring will take place at each monitoring location. Attendants will make time-stamped notes as to what they hear and the relative loudness of those sounds, including but not limited to wind turbine sound, wind, anthropogenic, and biogenic sounds.

3.0 DATA PROCESSING

Data during some periods will be removed from the results. These include periods when:

- Wind speeds (average or gusts) at a monitoring site are above 4 to 5 m/s – Winds above 5 m/s create a large amount of false noise generated from pressure fluctuations around the microphone. Data for wind speeds between 4 and 5 m/s (or below, as needed) should be carefully reviewed to identify any wind contamination that creates pseudo-noise or wind-induced noise that is sufficient to mask wind turbine sound prior to its inclusion in the filtered data set.
- The temperature is below 14°F – The ANSI S1.4 standard, “Specification for Sound Level Meters,” does not require the provision of temperature corrections below -10°C (14°F) and above 50°C (122°F). As such most sound level meters are not calibrated outside this range. If sound level meters are certified for use below 14°F, this restriction will not apply.
- Rain is present – Rain, sleet, ice, or similar events that drop precipitation onto the microphone windscreen create false noise. Snow events will not be excluded because they do not create false noise.
- Spikes are present that are not consistent with wind turbine operation. Note that this screening is only required for sound levels over 40 dBA, as manual filtering can be time-intensive. Periods that were screened should be identified in the report.

Certain background sounds such as insects and birds can be filtered by employing a low pass filter without affecting the sound monitored from the wind turbines. If these types of sources are found, a low-pass filter may be used, consistent with that described in “Proposed ‘Ai’-weighting; A weighting to remove insect noise from A-weighted field measurements”, Paul D. Schomer, Ian M. Slauch, and George F. Hessler, *InterNoise Proceedings*, Volume 221, pp. 3991-4000 (2010).

Events over 40 dBA (i.e., 5 dBA lower than the CPG exterior noise limit) where the hub height wind speed is sufficient to generate within 1 dB of the maximum sound power (over a reasonable period of time and number of turbines), and the wind direction is not upwind of the nearest turbines shall be investigated by listening to the audio tape or reviewing the spectrogram of the event and determining if the cause is wind turbine noise. If the exceedance is due to a background event, then it shall be eliminated. Events not meeting these criteria may still be investigated on a case by cases basis – for example, to compare modeled to monitored sound levels at a particular location.

Any substantial change in wind speed (or other background sound conditions) between the background and turbine-on monitoring periods shall be evaluated to assess its effect on the calculation of turbine-only sound level. Corrections may be applied as appropriate.

Where background sound levels are within 3 dB of the adjacent measured Turbine-on sound levels, the background and Turbine-on periods will be excluded from further processing

The Turbine-only sound level for the monitoring period will be determined by logarithmically subtracting the energy-averaged background sound level for all remaining measurement periods from the energy-averaged measured Turbine-On sound levels for all remaining measurement periods. This value will be used to compare to the appropriate CPG limits.

For the purposes of compliance with the 45 dBA exterior and 30 dBA interior standards, and other thresholds described in this protocol, all results will be rounded to the nearest whole integer.

At least two valid hours of Turbine-On data will be needed to determine compliance. Note that if five weeks of data monitoring are completed before two hours of valid data are collected, the monitoring period will be concluded, and the available valid periods will be used for compliance determination.

Tonal sounds will be assessed using the criteria of ANSI S12.9 Part 4 Annex C using 1/3 octave band for each rolling measured Turbine-On $L_{eq(1-hour)}$. Rolling periods will be incremented every 10 minutes. If tonal periods are found, then background sound levels can be removed or other methods employed to determine whether the tonality is due to the operation of the Project.

The sound monitoring report will include a description of each reason why data has been removed from monitoring results. The removed data will be retained by the sound monitoring consultant and provided to the Commission.

4.0 REPORTS

A report shall be prepared by the sound monitoring consultant for each monitoring season. Each monitoring report shall include:

- A description of any changes in Project operation made since the last report, special operating conditions, or turbine maintenance issues found during the test procedure.
- Layout of the project area, including topography, project boundary lines for the project and property lines delineating properties surrounding the project site.
- Locations of the sound measurement points with photographs and GPS coordinates of the microphones.
- Distance between any sound measurement point and the nearest wind turbine.
- A summary of all data collected, including sound levels, meteorological data at the monitoring stations, and turbine operating conditions.
- Times of potential exceedances of the outdoor, indoor, or tonal standard, and the results of investigations into those exceedances.
- Conclusions.
- An appendix containing 10-minute data for each turbine including wind speed, and electrical output.

If cold-weather-certified sound monitors are not used, then for the winter season, a report addendum will be prepared which includes sound levels during periods when the temperature is below 14°F. The sound monitoring consultant may include in its reports any information that it believes suggests that the sound level meters are not producing accurate data during times when the temperature falls below 14°F.

Reports shall be submitted to the PUC and the docket parties within six weeks of the end of each monitoring period. Any confidential information (i.e., audio files near residences) will be provided only after executing an appropriate protective agreement. If audio files are provided without a protective agreement, then private conversations will be redacted prior to release. The public versions of the reports (i.e. without such confidential information) will also be provided to the Forest Service.

If it is found that the Project sound level at any existing permanent structure for human habitation is above the allowable limit, Deerfield Wind shall take all remedial steps necessary to bring the sound levels produced by the turbine(s) into compliance with allowable levels, as required by the CPG. Such steps may include engineered solutions, operational changes or adjustments, or legal agreements, as applicable.

5.0 COMPLAINT RESOLUTION

The following complaint resolution procedure will assure that concerns by neighbors regarding wind turbine noise are addressed in a timely manner while, at the same time, preventing abuse of the complaint process. The complaint resolution procedure shall be as follows:

- 1) The complaint process shall be in place for the life of the Project.
- 2) Complaint phone numbers and contact persons for both Deerfield Wind and the Department of Public Service (“DPS”) shall be provided to the Town Clerks and Selectboards of Searsburg and Readsboro, and neighbors within the 30 dBA contour line of Figure 1 existing at the time of the issuance of the CPG.

Complaints may be made to Deerfield Wind by calling (866) 318-9858 or by sending a written complaint to the Deerfield Wind Project, 37 Putnam Road, Searsburg, VT 05363.

Complaints may also be made to the DPS Consumer Affairs and Public Information Division (“CAPI”) under its CPG Complaint Protocol by the following means:

VT Department of Public Service, CAPI Division
112 State Street
Montpelier, VT 05620-2601

E-mail: psd.consumer@vermont.gov

Consumer Hotline: (800) 622-4496

TTY: (800) 734-8390

Fax: (802) 828-2342

Web: <http://publicservice.vermont.gov/cpg-complaint-protocol>

- 3) Deerfield Wind will provide an initial acknowledgment to complaints within two business days of it being notified of the complaint.
- 4) Complainants who contact Deerfield Wind will be asked to provide the following information related to the complaint:
 - a. Location of the observed sound
 - b. Time(s) and date the sound occurred
 - c. Weather conditions (snow cover, cloud cover, wind direction and relative speed, etc.)
 - d. Description of the sound
- 5) Deerfield Wind may ask complainants to log sound events to help identify factors that affect the sound.
- 6) Deerfield Wind shall record the complainant information, and weather, turbine operating status, and power output during the time of the complaint. The Forest Service, PUC, and DPS will be informed of complaints along with these data.



- 7) If the complaint concerns an unidentified icing condition or mechanical problem, Deerfield will investigate as needed and take appropriate action if warranted. Once it is determined that either no aberrational condition exists or the condition is fixed, Deerfield will notify the complainant with a description of Deerfield's findings. Otherwise, no further complaint resolution steps need be taken. Deerfield will maintain files concerning such complaints and make these available to the PUC or DPS upon request.
- 8) Deerfield Wind will investigate as described below if the complaint represents permanent structure for human habitation existing at the time of the CPG issuance and within the 30 dBA contour shown on Figure 1.
- 9) Sound monitoring may be conducted in response to a complaint within the 30 dB contour if the sound level is within 5 dB of the exterior sound limit, based on sound modeling or upon order of the Commission in response to a complaint.
- 10) Sound monitoring may also be conducted if first-year or any subsequent Commission-ordered compliance monitoring during normal operating conditions (defined below) showed that a monitoring location within one mile of the complainant's home showed higher sound levels (with contaminating events filtered out) than what was modeled, to the extent that if this adjustment were applied to the complainant's home, the sound level would be within 5 dB of the exterior limit. For example, if sound monitoring at Location A showed that the maximum sound level is 39 dBA compared to modeling at that location of 38 dBA, then 1 dB would be added to the modeled sound levels of all other homes within a mile of Location A. If that adjustment raises the modeled sound level of a complainant's home over 40 dBA, then that complainant may be offered sound testing at the expense of Deerfield Wind.

Normal operating conditions would not include temporary maintenance issues, short term abnormal turbine operations, or other correctable or corrected conditions at the Project. If such abnormal conditions are the cause of the noise complaint, noise monitoring shall not be required. Deerfield Wind will make any necessary corrections to the Project as soon as feasible and shall communicate the situation to the complainant, Forest Service, PUC, and DPS.

- 11) If Deerfield Wind's sound consultant determines that follow-up sound monitoring is warranted under either Section 8 or 9 above, Deerfield Wind will notify the DPS in writing. The State of Vermont shall contract for and supervise the sound monitoring consultant. The State's sound monitoring shall begin as soon as possible, but no later than six weeks thereafter. All reasonable efforts shall be made to conduct such monitoring under conditions similar to those existing at the time the complaint arose.
- 12) The sound monitoring consultant shall work with the complainant to determine an appropriate location for the monitoring equipment.
- 13) Sound monitoring will follow the applicable protocols from Sections 2.4, 2.6, 3.0, and 4.0, above. Note that the responding noise control engineer may revise aspects of this Protocol to address specific conditions and limitations. For example, if the complaint occurs to the north of the Project along VT 9, then the noise control

engineer can limit the turbine shutdown to the western array as the eastern array would not materially affect the overall sound levels in that area. The basis for any deviations from this Protocol shall be described and substantiated in the test report.

- 14) The primary method for determining the attenuation value of a complainant home shall be OINR testing. OINR testing will be offered to complainants at Deerfield Wind's expense if the conditions for sound monitoring in Item 9, above, are met. The monitored exterior sound level will be converted to an interior level based on the ASTM E966 test result at the home. If permission is not granted for outside-to-inside testing, the attenuation value will be 15 dBA.
- 15) Because of the complexity of complaint resolution, full cooperation of the complainant and the adherence to the above test procedures is necessary.
- 16) The results of the monitoring shall be contained in a report that is submitted to the complainant, Deerfield Wind, the Department of Public Service, Forest Service, and the PUC. This report will contain specific information collected during the complaint monitoring, including wind speed and direction, operational status of the turbines, sound levels, and the raw sound level data collected by the noise control engineer conducting the tests. Allegedly confidential information will be treated the same as in Section 4 of this protocol.
- 17) If no exceedance is found at a location, including during the first-year monitoring, the location would be exempt from additional sound monitoring for five years.
- 18) Nothing in this Protocol would prevent Deerfield Wind from appealing to the PUC from relief in the cases of alleged frivolous, harassing, or repeated unsubstantiated complaints.

If it is found that the Project sound level at the complainant residence is above the allowable limit, Deerfield Wind shall take all remedial steps necessary to bring the sound levels produced by the turbine(s) into compliance with allowable levels, as required by the CPG. Such steps may include, but are not limited to, engineered solutions, operational changes or adjustments, including partial, temporary, or permanent shutdowns or noise-reduced operating modes, or legal agreements, as applicable.



APPENDIX B – FALL 2018 MEASUREMENT PLAN



TECHNICAL MEMORANDUM

Prepared for: Geoffrey Commons
Special Counsel
Vermont Public Service Department
112 State Street
Montpelier, VT 05621-2601

Prepared by: Douglas Barrett, Cross-Spectrum Acoustics Inc.

Subject: Noise Monitoring Plan for Deerfield Wind Project – FINAL -- Revised

Reference: CSA Project No. J2018-1170

Date: October 17, 2018

Cross-Spectrum Acoustics Inc. (CSA) has been retained by the Vermont Department of Public Service (DPS) to provide sound monitoring expert services in relation to compliance testing for the Deerfield Wind Project located in Searsburg and Readsboro, VT. Two periods of noise monitoring, one during the fall of 2018 and one during the spring of 2019, are to be performed in accordance with the “Final Sound Monitoring Protocol for Deerfield Wind”¹ (Protocol). This memorandum provides the detailed plan to conduct the fall 2018 measurements.

1. OVERVIEW OF MONITORING REQUIREMENTS

This section provides an overview of the monitoring requirements as provided in the Protocol. *Please note that this is intended only to provide an overview of the monitoring program and that the Protocol should be consulted to obtain all relevant information.*

1.1. Monitoring Periods: Each of the two monitoring periods shall be a continuous period at least two weeks in duration, but may be extended for up to five weeks if necessary to obtain sufficient data. In selecting the monitoring period, consideration shall be given to whether:

- Turbines will be out of service, length of outage, and whether the locations of turbines and length of outages would “substantially affect the results of the sound monitoring.”
- Forecasted heavy rains or storms comprise more than 50% of the two-week period.
- Normal operations are expected to be affected by safety concerns, grid reliability, or other issues. (Protocol, Section 2.2)

¹ “Final Sound Monitoring Protocol for Deerfield Wind,” prepared for: Deerfield Wind, LLC, prepared by: RSG, January 16, 2018.

1.2. Monitoring Locations: Sound monitoring is proposed for three locations, as described in the Protocol. Section 2 of this monitoring plan provides further information on specific sites. (Protocol, Section 2.3)

1.3 Outside to Inside Noise Reduction Testing: Outside to inside noise reduction (OINR) testing of houses may be requested by homeowners if that home meets the following criteria:

- The preconstruction sound model shows Deerfield Project sound levels of 40 dBA or higher at that location; or
- Sound monitoring (post-construction) shows Deerfield Project sound levels of 40 dBA (Leq) (1 hr) or higher at that location. (Protocol, Section 2.5)

1.4 Background Sound Measurements: Background sound levels will be excluded by turning off wind turbines at regular intervals, thus allowing a direct comparison between periods with and without turbines operating. To accomplish this, turbines will be shut down for 20 minutes at a times no less than once per night (10 pm to 7 am) where hub height speeds are at 6 m/s or above. A greater number of turbine shutdowns may occur, with shutdowns to occur as needed to collect sufficient turbine-off data. (Protocol, Section 2.6)

1.5 Attended Measurement: For one hour before or after at least one turbine shutdown event, attended monitoring will take place at each monitoring location. Attendants will make time-stamped notes regarding what they hear and the relative loudness of those sounds. (Protocol, Section 2.7)

2. MONITORING SITES

2.1 Proposed Sites: Section 2.3 of the Protocol describes the three proposed sound monitoring sites. “Revised Noise Impact Study for Deerfield Wind Project”² (Noise Study) provides further details on the monitoring sites used during the preconstruction noise measurements. As described in the Protocol:

- Site A is located south of Old Route 9, east of Bishop Hill Road, and south of VT Route 9 in Searsburg. This site is similar in location to Site 2 from the preconstruction monitoring.
- Site B is located near the transmission line that crosses VT Route 8 approximately 1.3 km (0.8 miles) south of the VT 8/VT 9 intersection in Searsburg and west of VT Route 8. This site is similar to Site 4 from the preconstruction noise monitoring.
- Site C is located approximately 0.5 miles north of Sleepy Hollow Road on VT Route 8 in Searsburg, west of Route 8. This site is similar to Site 5 from the preconstruction monitoring.

2.2 Alternative Sites: Section 2.3 of the Protocol states “where monitoring locations are near residential areas, to the extent permission is granted, monitors shall be set near individual homes closest to the Project at these locations. If permission is not granted, then alternative homes shall be

² “Revised Noise Impact Study for: Deerfield Wind Project, Searsburg/Readsboro, Vermont,” prepared for: Deerfield Wind, LLC, prepared by: RSG, November 28, 2007.

contacted, or monitors will be placed in public rights-of-way that are representative of a home, at a similar or lesser distance from the Project.”

2.3 Final Site Selection: Final monitoring sites are to be selected by the monitoring consultant (CSA). When the sites have been selected, the consultant must convey them to Deerfield Wind, and Deerfield Wind will file a map with the Commission showing monitoring, turbine, and meteorological tower locations. (Protocol, Section 2.3)

The attached technical memorandum “Final Monitoring Sites for Deerfield Wind Project -- Revised” (dated October 17, 2018) provides the final locations of the monitoring sites expected to be used for the measurements.

3. MONITORING EQUIPMENT

3.1 Required Equipment: The following instrumentation is required for the monitoring program:

- Three sound level meters (IEC Type I or better) with seven-inch hydrophobic windscreens. CSA expects to service the sound level meters every two days; therefore, each meter must have battery capability to run for at least two days and memory capability for continuous audio recording and one-second logging of 1/3 OB data. CSA’s NTi XL2 sound level meters will meet these requirements.
- Three complete battery sets for each sound level meter (nine total). This will allow for one battery set in use plus a replacement set in E. Longmeadow and a replacement set in Keene for each meter.
- Meteorological monitoring equipment: three anemometers, one wind vane, one temperature sensor, one rain sensor. Equipment must be battery-powered and capable of storing 10-minute interval data.
- Six tripods to support microphones and anemometers four to five feet above ground level.
- Three laptops or other means for time-stamping observations during attended monitoring.

3.2 Equipment Preparation: The sound level meters and meteorological instrumentation will be programmed and otherwise prepared for field use in CSA’s E. Longmeadow office the week before the measurements are to begin (week of October 8).

4. FIELDWORK

4.1 Prior to starting measurements:

- D. Barrett, in coordination with H. Singleton, will conduct the initial site survey, finalize candidate measurement sites, and start the process to obtain permissions.
- Prior to starting measurements, coordination with Deerfield Wind will be required regarding:
 - Site access
 - Development and submittal of the measurement site map (as described in Section 2.3 of the Protocol)
 - Coordination of nightly 20-minute shut-down periods

- o Ensuring that turbine data (10-minute data for each wind turbine, including wind speed and electrical output) are saved during the measurement period.
- For audio recordings, CSA must obtain permission from property owners prior to starting measurements.
- H. Singleton and J. Montoya will program and prepare the instrumentation in CSA's E. Longmeadow office.

4.2 During measurements:

- J. Montoya and D. Barrett will meet at the project site and perform initial on-site deployment of equipment. J. Montoya will transport equipment from E. Longmeadow.
- After the initial set-up, either J. Montoya or D. Barrett will visit the project site every two days to service the equipment (i.e. download data and replace batteries).
- One night during the measurement period, J. Montoya and H. Singleton will make an additional trip from E. Longmeadow for attended monitoring. This monitoring session will coincide with one of D. Barrett's scheduled site visits. The exact date will be determined, in part, by weather.
- During the monitoring period, CSA will screen data after each download (according to Section 3.0 of the Protocol) until it is confirmed that at least two hours of good "turbine-on" data have been recorded at each site. J. Suits will be on-call to do this during the monitoring period in coordination with D. Barrett and H. Singleton. Note that measurements may continue for up to five weeks if sufficient data have not been obtained.
- At the conclusion of monitoring, J. Montoya and D. Barrett will meet at the project site and collect the equipment.

5. PROPOSED SCHEDULE

- Conduct site visit, select sites week of September 24 (D. Barrett).
- Prepare and program equipment week of October 8 (H. Singleton and J. Montoya).
- Deploy equipment week of October 22 (aim for Monday, October 22, weather permitting) (J. Montoya and D. Barrett).
- Conduct attended monitoring week of October 29 (pick specific night depending on weather) (H. Singleton, J. Montoya, and D. Barrett).
- If all goes according to schedule, collect equipment on November 5 (J. Montoya and D. Barrett).



TECHNICAL MEMORANDUM

Prepared for: Rob Batarags, Matt Becker, Melissa Fisher
Avangrid
Prepared by: Douglas Barrett, Cross-Spectrum Acoustics Inc.
Subject: Final Monitoring Sites for Deerfield Wind Project -- Revised
Reference: CSA Project No. J2018-1170
Date: October 17, 2018

On October 1, 2018 and October 16, 2018, Cross-Spectrum Acoustics (CSA) conducted site visits to the project site in Searsburg, VT. The purpose of the site visits was to field check the candidate sites included in our memorandum of September 26, 2018 ("Candidate Monitoring Sites for Deerfield Wind Project") and to select the three final sites to be used in both the fall 2018 and spring 2019 monitoring periods.

The three final sites were selected based upon the guidance in the "Final Sound Monitoring Protocol for Deerfield Wind"¹ (Protocol); conditions on the ground, including distance from local noise sources such as roads and accessibility; and the ability to gain permission from property owners. For each site, Table 1 provides a general description of the location, the approximate latitude and longitude of the site, the property owner, and other relevant notes. CSA has contacted each property owner and has been granted permission to conduct noise monitoring at the proposed location.

Figure 1 provides an overview map showing the general location of each site. Figures 2, 3, and 4 show the specific proposed location of each site. Although it is CSA's intention to install the monitoring equipment as close to the locations shown as possible, conditions on the ground at the time of deployment may require minor modifications.

Table 1. Final Monitoring Sites

Monitoring Site	Location	Lat./Long.	Owner	Notes
Site A	South of Old Route 9 and VT Route 9	42.890904 -73.000301	James Bartleson	House shown in aerial imagery no longer present
Site B	197 VT Route 8	42.88178 -72.97244	Gerry DeGray	Clearing to south side of house and driveway
Site C	343 VT Route 8	42.87274 -72.97124	Tom Shea	Edge of graded area south of barn

¹ "Final Sound Monitoring Protocol for Deerfield Wind," prepared for: Deerfield Wind, LLC, prepared by: RSG, January 16, 2018.



Figure 1. General Location, All Monitoring Sites (Basemap: Google 2018)

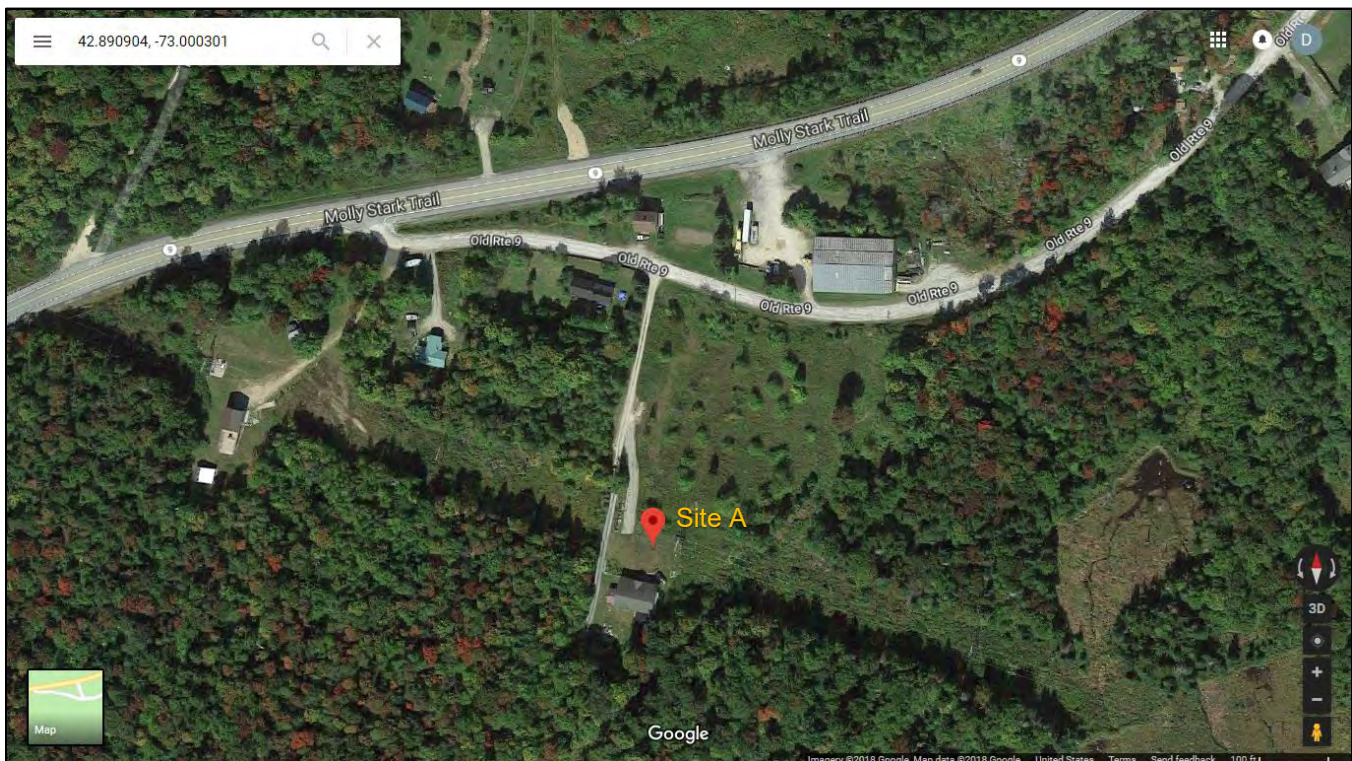


Figure 2. Site A Location Map (Basemap: Google 2018)

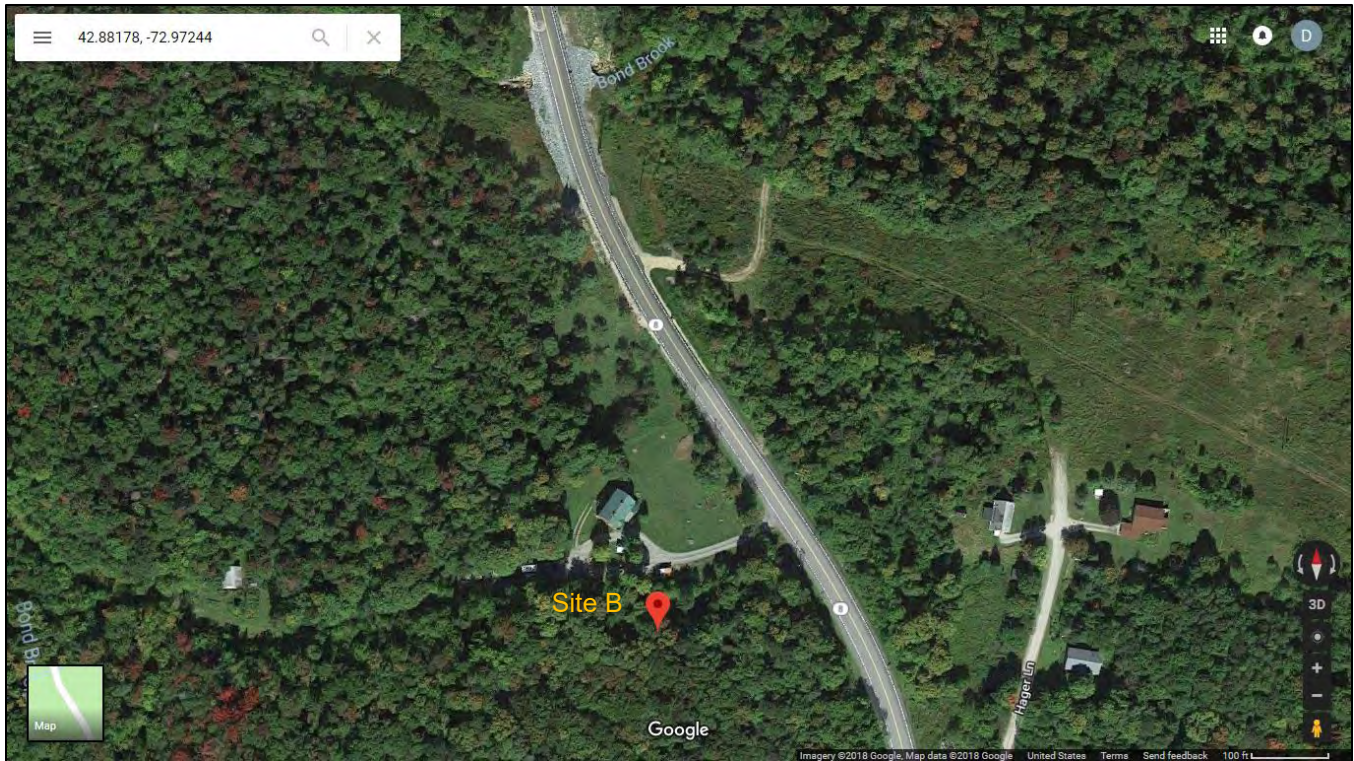


Figure 3. Site B Location Map (Basemap: Google 2018)

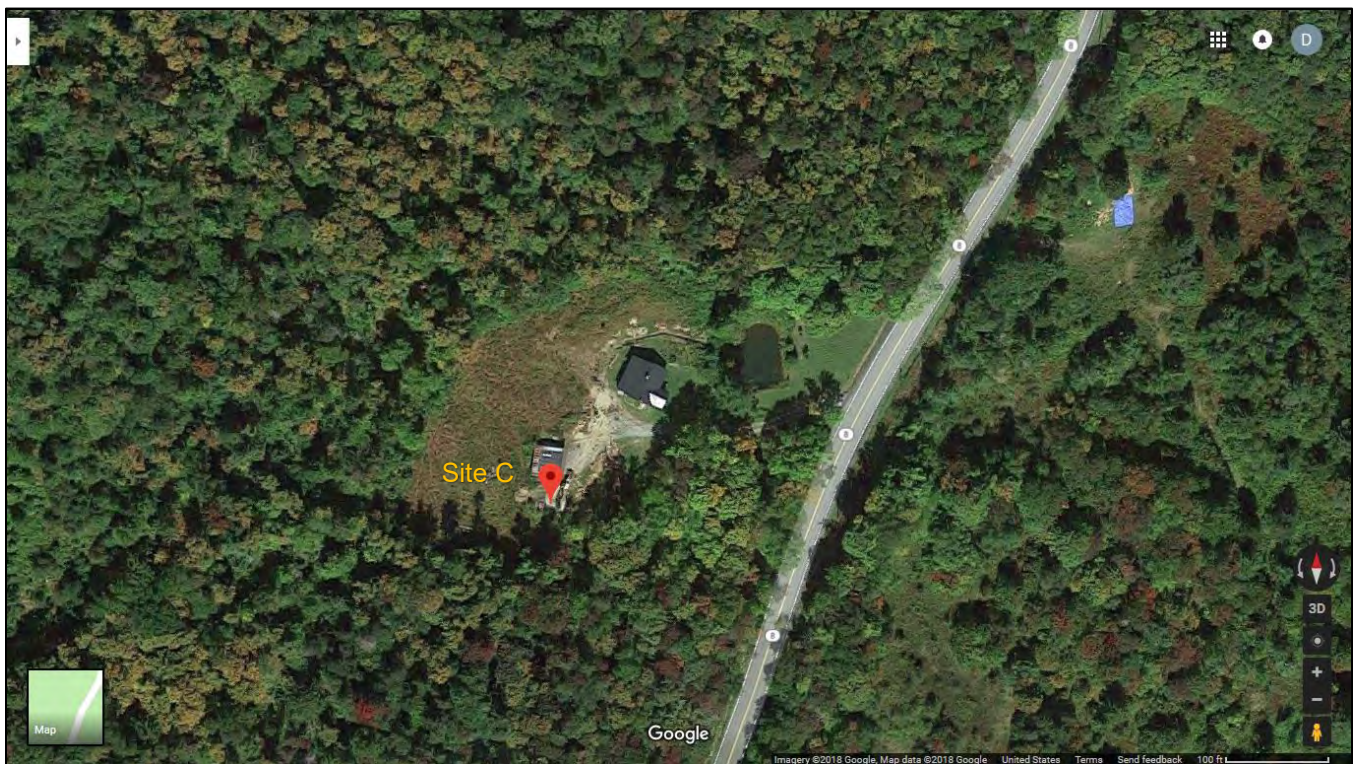


Figure 4. Site C Location Map (Basemap: Google 2018)

APPENDIX C – FIELD DATA SHEETS

This appendix provides the field data sheet, including site sketch, for Site C.

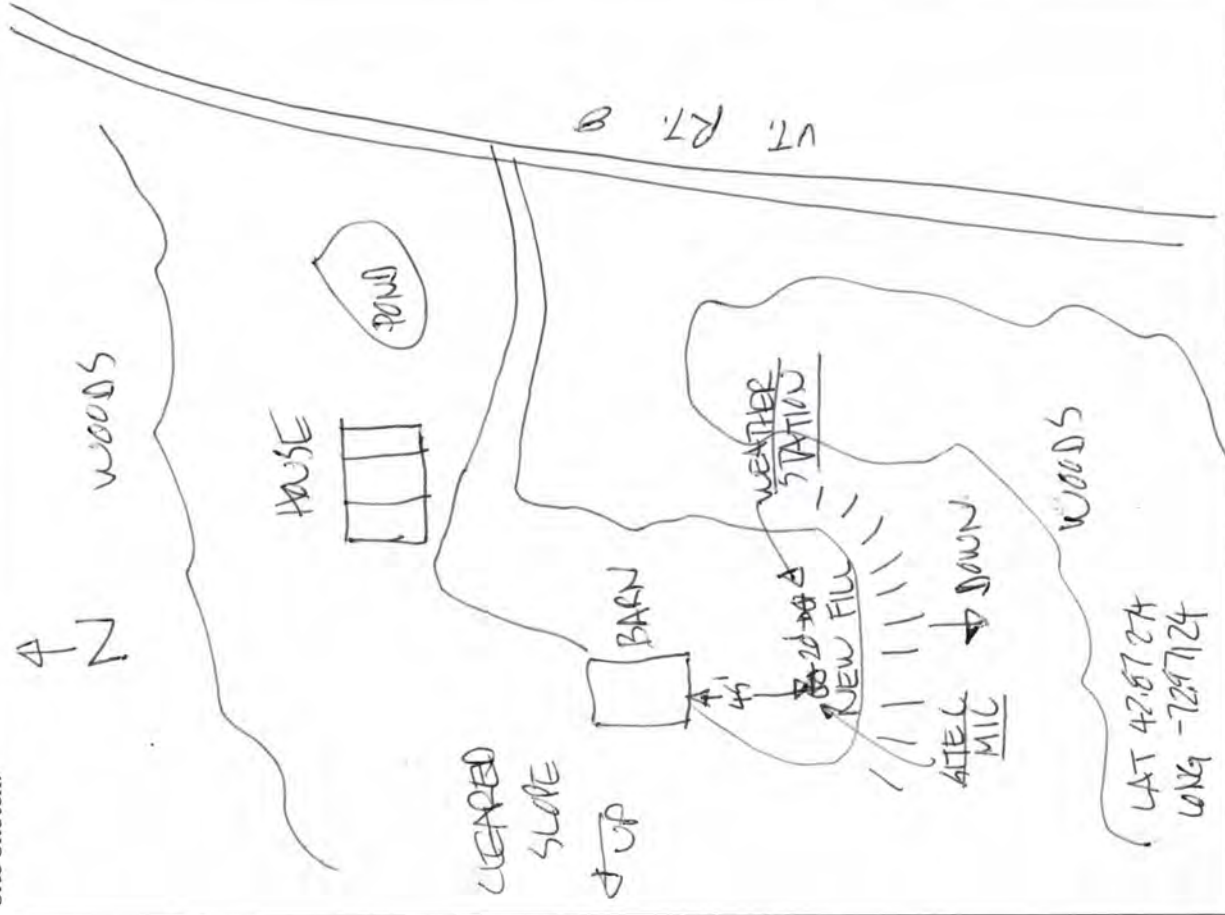
Project #: J2018-1170 Project: Deerfield Wind
 Site #: C Site Address: 343 VT. RT. 8
 Field Staff: DB/HLS
 Date: 6/20/20 Kit: BLUE Filename: _____
 Start Date: 6/20/20 Start Time: 2:35 PM
 End Date: 11/6/20 End Time: 11:00 AM
 Start Cal: 93.9 End Cal: 94.0

Weather:

Sources: TRAFFIC ON VT. RT. 8, DEERFIELD TURBINES,
 SEABURG TURBINES, ACTIVITIES @ HOUSE
 CARS IN DRIVEWAY, AIRCRAFT OVERFLIGHT,
 NATURAL SOUNDS: WIND IN TREES,
 LEAVES

Notes: APERIODIC "THUMPING" SOUND AUDIBLE
 AT START OF MONITORING

Site Sketch:



APPENDIX D – SOUND MEASUREMENT INSTRUMENTATION

This appendix provides a list of all sound monitoring equipment used during the Fall 2020 monitoring program.

Site C (CSA “Blue” Kit)

Sound Level Meter: NTi Audio, XL2, SN A2A-09677-E0

Preamplifier: PCB 426E01 SN 016981

Microphone: PCB 377B02, SN 125988

Calibrator: Larson Davis CAL200, SN 8477

APPENDIX E – WIND TURBINE DATA

This appendix provides 10-minute wind speed and electrical output data for each of the 15 Deerfield Wind turbines for the period from October 22 through November 6, 2020. This range of dates is the complete set of data provided by Avangrid and includes all turbine-operation curtailments conducted during the spring Fall 2020 monitoring program.

Please note that the times shown in this appendix denote the *end* of each 10-minute interval.

NOTE REGARDING TIME ZONES:

The data in this appendix were provided by Avangrid's operations center in Oregon with times referenced to Pacific Daylight Time (PDT) before 2:00 AM on November 1 or to Pacific Standard Time (PST) after 2:00 AM on November 1. All other times show in the report are in the Project's local time, Eastern Daylight Time (EDT) or Eastern Standard Time (EST), before or after 2:00 AM on November 1, respectively. To convert times in this appendix to local time at the Project site, add three hours.

Date/Time	Turbine Power Output (kW)																Turbine Wind Speed (m/s)													
	E1	E2	E3	E4	E5	E6	E7	W1	W2	W3	W4	W5	W6	W7	W8	E1	E2	E3	E4	E5	E6	E7	W1	W2	W3	W4	W5	W6	W7	W8
10/21 0:10	219	140	68	147	120	59	48	182	106	-2	83	107	267	152	277	5.19	4.64	3.31	4.62	4.31	3.75	3.53	5.05	4.42	2.99	3.59	4.14	5.45	4.47	5.48
10/21 0:20	208	92	40	127	111	73	83	168	57	-15	130	198	288	176	253	4.94	3.91	3.07	4.51	4.44	3.74	3.94	4.78	3.91	2.33	4.02	4.98	5.61	4.31	5.19
10/21 0:30	163	81	20	141	130	53	56	218	77	-7	174	180	237	135	262	4.70	4.04	2.87	4.78	4.73	3.48	3.74	5.18	4.02	2.80	4.59	5.06	5.24	3.96	5.31
10/21 0:40	222	128	31	201	164	61	115	230	144	27	165	176	228	102	253	5.40	4.58	3.01	5.44	5.18	3.29	4.54	5.19	4.52	3.30	4.29	4.90	5.17	3.60	5.35
10/21 0:50	224	97	44	192	181	148	133	240	170	67	128	53	159	26	197	5.20	4.02	3.10	5.19	5.09	4.63	4.36	5.28	4.74	3.81	4.33	3.14	4.77	2.65	4.94
10/21 1:00	152	63	58	137	113	89	80	202	71	-5	185	159	224	161	230	4.48	3.49	3.23	4.47	4.21	4.04	3.91	5.08	3.71	2.43	5.35	4.65	5.22	4.73	5.22
10/21 1:10	219	124	65	196	186	99	115	164	37	-10	167	116	168	109	204	5.14	4.41	3.39	5.05	5.24	4.10	4.46	4.97	3.53	2.50	4.84	4.59	4.86	3.97	5.02
10/21 1:20	189	67	28	197	191	149	156	102	66	3	50	0	47	26	112	4.89	3.75	2.80	5.43	5.25	4.52	4.60	4.32	3.97	2.96	3.53	2.87	3.65	2.91	4.27
10/21 1:30	244	105	42	219	257	203	201	119	85	-2	42	-10	3	-3	139	5.32	4.22	3.00	5.51	5.74	5.01	5.22	4.48	4.17	2.92	3.61	2.29	2.75	2.35	4.30
10/21 1:40	325	158	67	327	362	204	275	164	113	29	66	-10	42	22	188	5.86	4.69	3.55	6.34	6.68	4.91	5.92	4.89	4.48	3.48	3.89	2.10	3.36	2.69	4.83
10/21 1:50	514	313	144	473	422	235	277	223	116	58	85	-8	45	23	196	6.76	6.05	4.37	6.75	6.97	5.20	6.03	5.23	4.52	3.74	4.02	2.69	3.35	2.62	4.92
10/21 2:00	672	427	171	601	511	239	419	303	222	142	170	7	110	66	324	7.50	6.76	4.55	7.61	7.50	4.45	6.83	5.53	5.25	4.43	4.71	2.72	3.88	3.03	5.51
10/21 2:10	817	558	264	713	719	387	556	357	413	261	222	60	192	81	463	7.97	6.98	5.28	7.79	8.24	5.68	7.44	5.70	6.15	5.26	5.00	3.41	4.62	2.94	6.27
10/21 2:20	742	492	256	764	723	355	507	304	256	175	140	22	175	85	508	7.59	6.88	5.20	8.19	8.30	5.36	6.98	5.42	5.10	4.73	4.15	2.69	4.46	3.13	6.34
10/21 2:30	997	689	327	886	777	385	646	316	209	289	181	58	240	152	637	8.75	7.76	5.58	8.71	8.35	5.60	7.84	5.60	4.92	5.46	4.28	3.51	5.06	3.61	6.68
10/21 2:40	1,180	837	377	922	807	323	703	262	296	147	191	138	555	429	440	9.54	8.49	5.69	8.95	8.60	4.88	8.45	5.31	5.33	4.22	4.73	3.94	6.66	5.16	6.98
10/21 2:50	1,178	812	303	990	1,075	703	873	404	300	177	254	266	672	223	872	9.15	8.11	5.33	9.05	9.48	7.82	8.78	6.02	5.53	4.68	4.92	4.67	6.98	3.97	7.58
10/21 3:00	1,162	558	310	839	990	802	647	621	394	267	479	490	778	323	1,113	8.87	6.68	5.01	8.02	8.64	7.70	6.84	6.91	5.88	5.22	6.01	6.19	7.45	4.55	8.22
10/21 3:10	925	401	244	832	741	540	449	795	476	234	471	399	715	285	1,131	8.08	6.03	4.69	8.08	7.49	7.20	6.24	7.38	6.29	4.93	6.18	5.67	7.31	4.39	8.20
10/21 3:20	921	369	193	715	725	514	534	525	368	150	393	372	790	323	1,110	8.15	5.89	4.48	7.67	7.56	6.88	6.90	6.41	5.92	4.23	5.47	5.46	7.47	4.71	8.09
10/21 3:30	815	343	214	500	627	505	430	618	362	157	421	473	711	465	1,000	7.50	5.69	4.61	6.98	7.21	6.53	6.23	6.83	6.06	4.34	5.53	6.00	7.13	5.39	7.92
10/21 3:40	577	209	161	448	523	506	543	1,008	541	243	566	668	1,129	562	1,429	6.76	4.96	4.16	6.70	6.98	6.75	7.35	7.91	6.78	5.09	6.11	6.34	8.51	5.35	9.11
10/21 3:50	784	402	271	828	904	764	576	1,453	622	362	648	705	1,473	512	1,664	7.83	6.30	4.99	8.74	8.85	7.80	7.12	9.13	7.06	5.72	6.22	6.36	9.39	5.08	9.64
10/21 4:00	1,128	586	361	853	832	672	572	1,639	819	394	735	850	1,214	571	1,711	8.85	7.22	5.49	8.53	8.28	7.60	7.43	9.64	7.57	5.55	7.08	7.45	8.42	5.53	9.70
10/21 4:10	1,100	361	313	736	980	963	871	1,680	1,109	328	1,006	1,035	1,253	771	1,743	8.79	5.80	5.01	8.13	9.18	8.82	8.74	9.44	8.50	5.30	7.74	8.37	8.53	6.28	9.81
10/21 4:20	1,051	341	411	831	977	848	774	1,735	999	293	1,101	1,116	1,164	754	1,731	8.44	5.52	5.57	8.54	8.94	8.20	8.11	9.72	8.15	5.27	7.99	8.82	8.19	6.48	9.86
10/21 4:30	1,253	415	348	918	995	848	667	1,711	1,144	443	1,021	996	1,222	566	1,612	9.38	6.17	5.33	8.87	9.11	8.35	7.83	9.63	8.54	6.02	7.80	8.11	8.51	5.95	9.34
10/21 4:40	1,441	623	491	922	1,102	815	818	1,899	1,178	638	938	697	1,372	587	1,966	10.04	7.20	6.09	8.79	9.35	7.91	8.20	10.14	8.64	6.70	7.57	6.43	8.87	5.83	10.48
10/21 4:50	1,588	726	530	1,083	1,197	1,089	969	1,844	1,333	745	888	647	1,344	597	1,836	10.44	7.19	6.39	9.37	9.72	9.14	8.85	9.94	8.99	7.06	7.54	6.67	8.85	5.99	10.01
10/21 5:00	1,735	714	690	1,225	1,340	1,157	1,103	1,908	1,495	707	1,327	1,271	1,469	1,112	1,988	10.64	7.14	6.64	9.78	10.16	9.00	9.39	10.24	9.51	6.91	8.72	8.86	8.90	7.75	10.61
10/21 5:10	1,362	421	534	1,008	1,166	1,110	1,139	2,007	1,685	593	1,583	1,618	1,886	1,674	2,009	9.44	6.21	6.43	8.97	9.39	8.87	9.22	10.80	9.86	6.49	9.44	9.74	10.11	9.30	10.83
10/21 5:20	979	503	732	995	1,247	1,152	1,292	2,000	1,666	641	1,844	1,813	1,902	1,646	1,975	8.00	6.65	7.40	8.78	9.51	8.86	9.75	11.42	9.83	6.49	10.54	10.26	10.16	9.63	10.76
10/21 5:30	1,154	711	889	1,210	1,422	1,373	1,413	2,000	1,657	1,195	2,008	2,005	1,953	1,996	2,003	8.59	7.34	8.11	9.35	9.87	9.52	10.10	12.03	9.32	8.19	12.34	11.00	10.15	11.42	11.10
10/21 5:40	1,469	935	1,103	1,376	1,570	1,381	1,355	1,999	1,501	909	1,999	1,819	1,552	1,793	1,886	9.93	8.36	8.66	9.90	10.40	9.59	9.96	11.65	8.87	7.25	12.06	10.18	9.04	10.33	10.33
10/21 5:50	1,359	733	952	1,041	1,266	1,224	1,179	2,001	1,676	786	1,967	1,963	1,841	2,014	2,011	9.55	7.51	7.97	8.61	9.32	9.18	9.24	11.42	9.78	6.80	11.34	10.69	9.90	11.55	11.05
10/21 6:00	1,364	941	1,121	1,343	1,528	1,317	1,108	1,999	1,840	1,104	1,942	1,912	1,960	1,841	1,972	9.94	8.23	8.74	9.90	10.07	9.51	9.89	12.37	10.05	7.80	11.38	10.54	10.71	10.13	10.64
10/21 6:10	1,538	829	1,015	1,391	1,480	1,230	1,076	1,999	1,745	945	2,001	1,767	1,623	1,756	1,870	9.92	7.83	8.36	10.22	10.31	9.34	9.06	11.79	9.63	7.46	11.63	9.97	9.42	10.00	10.23
10/21 6:20	1,240	779	967	1,260	1,563	1,340	1,005	1,999	1,490	1,066	1,968	1,661	1,572	1,325	1,343	8.99	7.73	8.21	9.47	10.38	9.60	9.01	11.09	8.66	7.76	12.00	9.72	9.38	8.96	8.71
10/21 6:30	1,392	784	1,166	1,468	1,641	1,693	1,303	1,999	1,427	771	1,799	1,275	1,314	1,397	1,542	9.60	7.44	8.87	10.07	10.35	10.97	10.42	11.89	9.08	6.79	10.72	8.93	8.53	8.98	9.32
10/21 6:40	1,348	745	1,331	1,394	1,779	1,453	1,238	1,993	1,413	489	1,479	1,372	1,466	1,585	1,744	9.59	7.40	9.52	9.89	10.85	9.98	10.10	11.37	8.92	5.95	9.96	9.07	9.25	9.83	9.82
10/21 6:50	1,088	638	1,111	1,473	1,801	1,429	1,152	1,968	1,239	594	1,734	1,442	1,343	1,414	1,561	8.50	7.06	8.58	10.04	11.02	9.86	9.71	11.03	8.30	6.32	10.61	9.14	8.74	9.37	9.39
10/21 7:00	1,204	819	937	1,373	1,430	1,458	1,206	1,987	1,130	447	1,582	1,277	1,267	1,259	1,441	9.34	7.89	8.1												

10/21 9:30	649	340	-8	1,000	953	1,037	939	946	900	-8	-7	-9	1,011	1,248	1,220	7.06	5.53	6.00	9.27	9.09	10.16	9.63	8.69	8.46	8.55	9.84	9.79	9.10	10.68	9.70	
10/21 9:40	686	374	65	1,071	1,154	1,276	1,011	904	724	580	837	585	1,118	1,556	1,707	7.28	5.54	5.36	9.29	9.50	10.14	9.15	7.97	7.20	8.40	10.04	8.13	8.61	10.17	10.61	
10/21 9:50	345	27	249	909	1,283	1,312	915	902	1,776	1,982	2,005	1,675	1,302	1,856	1,967	5.63	3.68	4.44	8.10	9.90	9.54	9.03	7.86	10.65	11.19	12.19	9.94	8.77	10.72	10.98	
10/21 10:00	131	12	216	709	1,385	1,605	1,388	1,250	1,540	1,701	1,940	1,686	1,097	1,780	1,651	4.98	3.68	4.67	7.73	10.09	10.91	10.44	8.68	9.47	10.08	11.40	9.99	8.58	10.17	9.72	
10/21 10:10	251	147	570	1,061	1,227	1,653	1,425	1,761	1,663	1,678	1,923	1,875	1,885	1,701	1,618	5.31	4.29	6.77	8.73	9.66	11.39	10.60	10.15	10.22	10.43	12.30	11.00	10.40	9.94	9.80	
10/21 10:20	508	245	524	1,129	1,278	1,721	1,636	1,469	1,759	1,688	1,889	1,901	1,622	1,813	1,857	6.60	5.37	6.03	9.17	9.78	11.41	11.40	9.17	10.31	10.01	11.38	10.68	9.91	10.94	11.06	
10/21 10:30	939	375	1,171	1,576	1,618	1,456	1,268	1,348	1,539	1,429	1,776	1,705	1,788	1,997	2,000	8.08	5.76	8.76	11.16	11.04	10.57	9.97	8.85	10.09	9.77	11.18	9.84	10.59	12.13	11.89	
10/21 10:40	971	369	1,087	1,690	1,422	1,620	1,459	1,432	1,916	1,961	2,001	1,957	1,986	1,837	1,912	8.52	5.60	8.03	11.33	10.41	10.73	10.64	9.21	10.92	11.69	12.86	10.96	11.04	10.65	10.99	
10/21 10:50	1,013	363	858	1,628	1,173	1,744	1,508	991	1,477	1,526	1,724	1,929	1,775	1,777	1,833	8.41	5.69	7.58	11.09	9.38	11.50	10.94	7.86	9.34	9.63	10.66	10.76	10.55	10.41	10.14	
10/21 11:00	943	277	789	1,634	1,603	1,886	1,816	1,774	1,501	1,922	1,985	1,860	1,867	1,729	1,930	8.33	5.71	7.41	11.37	11.33	12.45	12.13	10.08	10.30	10.57	12.21	10.94	10.59	10.30	10.51	
10/21 11:10	696	304	681	1,281	1,800	1,929	1,744	1,861	1,710	1,858	2,006	1,977	1,666	1,793	1,905	7.15	5.67	7.21	9.61	11.25	12.09	12.00	10.46	10.56	10.42	12.23	11.16	10.06	10.56	10.78	
10/21 11:20	575	210	531	1,288	1,691	1,908	1,681	1,854	1,433	1,646	2,005	2,005	1,658	1,865	1,996	6.67	5.32	6.10	9.78	11.41	12.29	11.99	10.37	9.57	10.27	12.10	11.31	9.82	10.78	11.09	
10/21 11:30	782	250	670	1,366	1,219	1,601	1,302	1,311	1,471	1,352	1,955	1,846	1,786	2,011	1,979	7.75	4.80	6.57	9.71	9.47	10.89	9.78	8.97	9.34	9.05	11.58	10.79	10.25	11.71	11.44	
10/21 11:40	753	297	532	1,230	1,423	1,390	1,339	1,056	1,659	1,705	1,940	1,788	1,542	1,977	1,988	7.79	5.40	6.32	9.85	10.41	10.28	10.74	8.25	10.23	10.01	11.77	10.13	9.54	11.32	11.01	
10/21 11:50	1,067	684	406	1,358	1,411	1,600	1,676	1,303	1,537	1,726	1,929	1,805	1,868	1,803	1,985	8.74	7.50	5.29	10.24	10.50	11.31	11.40	8.86	10.06	10.50	11.62	10.29	10.63	10.76	10.96	
10/21 12:00	948	370	335	1,168	1,306	1,580	1,400	1,195	1,600	1,648	1,912	1,651	1,976	1,954	1,948	8.21	5.35	5.27	9.17	10.29	11.12	10.45	8.49	10.15	10.01	11.55	10.03	11.22	11.70	11.09	
10/21 12:10	704	299	362	1,127	1,317	1,538	1,350	1,625	1,512	1,760	1,942	1,891	1,882	1,802	1,877	7.26	5.69	5.46	9.26	10.23	10.85	10.05	9.88	10.00	10.59	11.45	10.60	10.44	10.60	10.72	
10/21 12:20	753	346	460	1,175	1,533	1,632	1,305	1,589	1,996	1,991	2,010	1,843	1,820	1,722	1,812	7.34	5.44	5.45	9.25	10.41	10.96	9.92	9.64	11.73	11.49	12.02	10.35	10.38	10.13	10.29	
10/21 12:30	541	187	249	1,042	1,392	1,600	1,339	1,580	1,847	1,769	1,998	1,998	1,851	1,935	1,959	6.83	4.77	4.74	8.79	10.34	11.17	10.71	9.76	11.03	10.33	11.95	11.19	10.59	11.04	10.90	
10/21 12:40	841	403	276	1,202	1,108	1,699	1,557	1,558	1,707	1,830	1,945	1,864	1,930	1,919	2,009	8.29	5.82	4.53	9.27	8.70	11.23	11.27	9.60	10.32	10.70	11.78	10.12	10.55	11.09	11.60	
10/21 12:50	503	163	201	903	1,356	1,645	1,477	1,673	1,404	1,565	1,959	1,956	1,752	2,003	2,000	6.62	4.52	3.94	8.06	9.72	11.04	11.28	9.97	9.31	9.74	11.72	10.86	9.95	12.05	11.50	
10/21 13:00	421	166	191	1,001	919	1,418	1,290	1,447	1,613	1,718	1,963	1,837	1,784	1,965	1,940	5.86	4.57	4.03	8.64	8.65	10.27	10.33	9.20	10.01	10.25	11.63	10.33	10.12	11.31	11.09	
10/21 13:10	788	338	190	963	1,427	1,453	1,390	1,656	1,461	1,643	1,953	1,950	1,443	1,929	1,924	7.92	6.13	4.17	8.55	10.35	10.31	10.91	9.94	9.65	10.21	11.62	11.27	8.87	11.04	10.53	
10/21 13:20	977	473	294	1,415	1,790	1,849	1,508	1,130	1,487	1,792	1,920	1,692	1,408	1,841	1,607	8.61	6.27	4.74	9.84	11.04	11.80	10.85	8.22	9.74	10.25	11.21	11.21	9.80	8.97	10.68	9.42
10/21 13:30	428	148	227	1,083	872	1,255	1,119	813	1,720	1,516	1,639	1,458	1,561	1,466	1,850	5.92	4.28	4.74	8.85	7.96	9.54	9.97	7.32	10.27	9.55	10.27	9.25	9.44	9.09	10.16	
10/21 13:40	232	110	217	643	809	1,137	1,018	1,239	1,157	1,547	1,935	1,723	1,779	1,797	1,690	5.24	3.91	4.44	7.17	8.20	9.08	9.51	8.61	8.66	9.70	11.18	10.01	10.00	10.34	9.67	
10/21 13:50	407	193	89	622	959	1,288	1,168	1,732	1,461	1,581	1,893	1,745	1,883	1,644	1,465	6.09	4.77	3.54	7.39	8.95	9.75	10.23	9.95	9.67	9.84	10.93	9.93	10.34	9.81	9.05	
10/21 14:00	713	314	137	884	1,249	1,278	913	1,502	1,665	1,757	2,001	1,771	1,554	1,868	1,869	7.47	5.55	3.98	8.11	9.43	9.68	9.08	9.24	10.55	10.61	11.55	9.94	9.54	10.75	10.45	
10/21 14:10	1,010	557	358	1,315	1,571	1,446	1,213	1,407	1,567	1,569	1,814	1,611	1,852	1,987	1,825	8.41	6.58	5.33	9.76	10.53	10.13	10.26	9.22	10.09	9.65	10.64	9.44	10.18	11.17	10.30	
10/21 14:20	996	405	352	1,342	1,569	1,562	1,256	1,644	1,404	1,568	1,954	1,826	1,798	1,929	1,977	8.24	5.93	5.06	9.40	10.40	10.73	10.11	9.83	9.61	10.01	11.65	10.15	10.31	10.98	10.84	
10/21 14:30	461	173	175	949	1,239	1,579	1,437	1,726	1,806	1,901	2,008	1,886	1,870	1,911	2,015	6.12	4.34	4.11	8.45	9.14	10.56	10.85	9.97	11.15	11.13	12.60	10.45	10.56	11.18	11.22	
10/21 14:40	479	172	312	1,324	1,131	1,658	1,491	1,392	1,482	1,392	1,926	1,856	1,819	1,900	1,911	6.32	4.46	5.04	9.75	9.01	10.99	10.95	8.69	9.85	9.12	10.97	10.14	10.00	11.38	10.80	
10/21 14:50	739	339	286	1,192	1,609	1,689	1,515	1,276	1,504	1,567	1,865	1,664	1,660	1,590	1,812	7.73	5.78	5.28	9.87	10.98	11.11	11.17	8.92	9.83	9.67	10.82	9.83	9.65	9.58	10.31	
10/21 15:00	503	240	312	1,325	1,232	1,476	1,405	973	1,149	1,100	1,501	1,227	1,550	1,486	1,640	6.18	4.95	4.83	9.82	9.36	10.26	10.68	7.75	8.71	8.22	9.64	8.51	9.54	9.68	9.59	
10/21 15:10	400	148	170	1,125	794	1,205	1,067	794	955	955	1,390	985	1,423	1,485	1,418	6.05	4.39	4.03	9.16	7.87	9.01	9.25	7.39	8.06	8.09	9.48	7.74	9.21	9.45	9.04	
10/21 15:20	371	144	149	944	881	867	1,081	683	1,139	1,203	1,422	1,302	1,280	1,681	1,549	6.62	4.23	3.92	8.59	8.12	7.80	9.40	6.92	8.88	8.79	9.46	8.68	8.79	10.04	9.30	
10/21 15:30	386	146	155	736	964	1,019	934	946	1,260	1,023	1,362	1,228	1,364	1,628	1,438	5.75	4.23	3.81	7.54	8.42	8.51	8.69	7.75	9.21	8.36	9.28	8.33	8.86	9.97	9.13	
10/21 15:40	176	26	75	462	842	1,093	832	1,114	1,312	1,002	1,461	1,373	1,291	1,611	1,522	4.38	2.80	3.17	6.50	8.11	8.95	8.02	8.28	9.17	7.94	9.66	9.02	8.68	9.70	9.11	
10/21 15:50	242	76	141	646	811	858	863	1,160	1,515	1,161	1,391	1,144	1,085	1,234	1,187	5.04	3.61	3.94	7.22	7.88	8.07	8.06	8.20	9.88	8.42	9.40	8.34	8.03	8.77	8.31	
10/21 16:00	461	134	104	548	845	882	839	1,075	1,507	1,312	1,665	1,393	1,160	1,334	1,231	6.57	4.04	3.53	6.90	8.00	8.40	8.42	8.06	9.81	8.78	10.24	8.89	8.49	8.94	8.65	
10/21 16:10	354	94	190	717	758	901	714	1,320	1,734	1,606	1,910	1,547	1,416	1,410	1,460	5.54	3.36	4.23	7.49	7.71	8.28	7.50	8.82	10.26	9.54	11.03					

10/21 19:20	1,067	812	1,088	1,157	1,241	1,131	1,098	325	900	1,205	1,530	964	813	1,107	1,371	8.76	7.84	8.52	8.89	9.42	8.69	8.53	5.43	7.92	8.45	9.99	7.76	7.27	8.17	8.80
10/21 19:30	1,094	771	927	921	1,057	992	1,128	378	931	1,035	1,415	1,083	849	1,180	1,085	8.55	7.60	7.93	8.17	8.96	8.32	8.94	5.82	8.08	7.86	9.76	8.03	7.38	8.39	8.01
10/21 19:40	702	583	741	744	830	949	831	339	725	834	1,142	819	911	823	971	7.46	6.75	7.27	7.38	8.15	8.17	7.74	5.28	7.05	7.46	8.83	7.27	7.57	7.31	7.75
10/21 19:50	702	547	644	677	1,020	945	866	481	1,087	891	1,074	976	1,170	1,087	990	7.10	6.47	6.81	7.49	8.51	8.04	8.25	6.26	8.13	7.63	8.88	7.72	8.27	8.12	7.76
10/21 20:00	701	587	739	936	1,080	1,153	1,178	285	616	982	1,025	1,235	1,180	992	1,019	7.43	6.99	7.43	8.36	9.37	8.88	9.35	5.24	7.08	7.85	8.69	8.37	8.20	7.73	7.87
10/21 20:10	1,124	939	1,252	1,286	1,417	1,606	1,541	363	843	854	766	867	702	690	684	9.04	8.26	8.99	9.57	10.34	10.81	10.76	5.81	7.72	7.49	7.90	7.40	6.89	6.83	6.79
10/21 20:20	446	467	570	569	606	622	617	262	441	467	300	337	319	203	329	9.00	8.67	9.74	10.11	10.05	9.58	9.90	6.31	6.77	8.05	8.73	7.23	7.04	6.55	7.01
10/21 20:30	-10	-10	-10	-11	-9	-11	-10	-13	-11	-10	-11	-9	-11	-11	-10	7.46	7.63	8.56	8.47	8.85	8.39	9.46	7.92	7.10	7.06	9.70	7.61	8.09	7.52	7.37
10/21 20:40	385	396	492	462	480	622	512	878	891	735	884	713	886	900	520	6.96	7.24	7.98	8.08	8.15	8.89	8.12	8.82	9.17	8.28	9.59	8.38	8.75	8.75	7.54
10/21 20:50	1,437	1,040	1,414	1,287	1,230	1,150	1,130	1,614	1,189	1,577	1,683	1,243	992	1,036	1,453	10.41	8.73	9.53	9.42	9.48	8.83	9.09	9.36	8.61	9.33	10.34	8.48	7.74	7.72	8.83
10/21 21:00	1,147	1,023	1,168	1,208	1,400	1,452	1,578	824	867	919	1,210	1,168	1,049	1,243	1,203	8.76	8.44	8.71	9.39	9.92	9.98	10.59	7.46	7.93	7.69	9.17	8.41	7.92	8.85	8.48
10/21 21:10	1,005	977	1,312	1,249	1,541	1,309	1,646	861	769	924	1,332	769	874	987	1,071	8.61	7.84	9.13	9.14	10.17	9.39	10.70	7.45	7.55	7.79	9.61	7.02	7.41	7.82	7.94
10/21 21:20	1,062	1,032	1,267	1,185	1,538	1,572	1,776	779	578	569	636	657	715	673	617	8.41	8.38	8.94	9.30	10.69	10.34	11.10	7.13	6.81	6.59	7.10	6.79	6.94	6.83	6.61
10/21 21:30	804	991	1,237	1,182	1,396	1,369	1,555	524	556	484	722	569	554	541	659	7.77	8.53	9.13	9.47	10.41	9.59	10.61	6.42	6.92	6.35	7.65	6.54	6.41	6.30	6.71
10/21 21:40	851	852	968	846	1,058	1,354	1,548	620	524	350	483	604	570	611	468	7.86	7.75	8.16	7.95	9.19	9.68	10.54	6.82	6.60	5.68	6.97	6.88	6.57	6.67	6.09
10/21 21:50	811	769	968	926	1,105	1,260	1,408	467	456	385	635	542	639	525	585	7.60	7.24	8.09	8.34	9.21	9.33	10.05	6.36	6.49	5.95	7.37	6.44	6.71	6.20	6.55
10/21 22:00	737	841	1,000	870	1,131	1,240	1,477	656	529	471	670	539	467	503	777	7.71	7.62	8.16	7.88	9.41	9.16	10.16	7.00	6.75	6.29	7.36	5.50	6.13	6.10	7.24
10/21 22:10	848	863	1,005	971	1,208	1,232	1,427	461	503	465	592	508	492	493	540	7.86	7.88	8.08	8.90	9.54	9.52	9.80	6.25	6.57	6.10	7.18	6.43	6.33	6.09	6.34
10/21 22:20	535	571	646	523	626	771	843	310	264	411	289	362	436	429	264	8.69	8.78	8.43	8.57	9.22	9.62	10.10	6.59	6.58	7.20	7.16	6.79	6.48	6.78	5.65
10/21 22:30	-11	-11	-10	-11	-10	-11	-9	-13	-11	-12	-11	-12	-11	-12	-11	8.58	8.57	9.26	8.92	9.64	10.21	10.47	7.02	7.06	7.11	8.47	7.15	6.64	5.37	5.83
10/21 22:40	512	596	653	480	718	707	758	365	286	335	285	343	309	377	312	8.49	8.77	9.36	9.02	9.92	9.79	10.94	7.07	6.63	7.52	7.59	7.05	7.14	7.20	7.23
10/21 22:50	1,243	1,131	1,184	1,122	1,454	1,416	1,640	931	696	821	887	789	714	771	922	9.28	8.51	9.01	8.99	9.83	9.85	11.02	7.80	7.33	7.52	8.29	7.49	7.08	7.16	7.64
10/21 23:00	1,329	1,255	1,277	1,164	1,580	1,568	1,729	1,242	1,028	1,183	1,473	1,074	1,082	1,158	1,437	9.39	8.92	9.42	9.28	10.31	10.21	11.35	8.58	8.24	8.64	10.01	8.10	8.05	8.32	9.05
10/21 23:10	1,575	1,117	1,470	1,425	1,699	1,678	1,794	1,516	1,381	1,578	1,814	1,341	1,236	1,523	1,552	10.98	8.39	9.59	10.12	10.54	10.75	11.54	9.07	8.85	9.27	10.72	8.63	8.32	9.54	9.28
10/21 23:20	1,640	1,293	1,562	1,629	1,859	1,935	1,912	1,349	1,280	1,306	1,689	1,265	1,199	1,491	1,291	10.86	8.93	9.95	10.63	11.09	11.51	11.99	8.71	8.73	8.51	10.25	8.46	8.19	9.32	8.34
10/21 23:30	1,629	1,271	1,543	1,439	1,942	1,815	2,009	1,251	991	1,097	1,378	1,074	939	1,163	1,274	10.53	8.83	9.64	9.79	11.28	11.11	12.44	8.71	8.11	8.05	9.40	8.12	7.65	8.52	8.52
10/21 23:40	1,406	1,097	1,524	1,320	1,816	1,882	1,953	1,053	969	1,125	1,467	1,025	828	910	975	10.16	8.66	9.70	9.81	10.96	11.47	12.23	7.96	7.90	8.24	9.84	8.03	7.32	7.54	7.64
10/21 23:50	1,370	1,202	1,380	1,367	1,768	1,886	1,948	918	779	871	965	764	669	926	1,036	9.99	9.03	9.27	9.98	10.84	11.56	12.43	7.86	7.68	7.59	8.15	7.26	6.92	7.83	8.05
10/22 0:00	1,384	1,173	1,315	1,279	1,823	1,847	1,914	912	745	827	1,013	834	735	1,061	1,161	9.90	8.65	8.99	9.46	11.08	11.45	12.28	7.82	7.75	7.45	8.59	7.25	7.02	8.21	8.22
10/22 0:10	1,600	1,246	1,622	1,480	2,011	2,008	2,009	874	754	840	1,167	828	830	1,084	1,272	10.60	8.89	9.99	10.10	11.85	12.48	13.04	7.45	7.52	7.52	8.87	7.30	7.42	8.17	8.48
10/22 0:20	1,846	1,603	1,660	1,580	1,987	1,993	1,998	1,052	912	1,085	1,509	1,005	921	1,206	1,480	11.60	10.01	10.23	10.33	11.72	12.27	12.92	8.12	7.90	8.19	9.92	7.97	7.54	8.26	9.02
10/22 0:30	2,006	1,662	1,771	1,575	2,009	1,990	1,966	1,430	1,171	1,325	1,735	1,356	1,298	1,808	1,897	12.26	10.35	10.58	10.24	11.66	11.89	12.22	8.86	8.40	8.72	10.37	8.56	8.50	10.04	10.07
10/22 0:40	125	122	101	162	143	168	140	133	148	112	113	90	194	176	140	11.27	10.38	11.50	10.99	12.29	12.36	12.68	8.57	8.60	8.41	10.03	8.31	7.76	8.64	8.92
10/22 0:50	-19	-9	-18	-10	-22	-20	-23	-11	-10	-10	-11	-9	-10	-10	-9	-10.70	10.14	11.34	10.45	11.97	12.56	12.72	9.04	8.33	9.03	10.46	8.04	8.00	8.44	9.66
10/22 1:00	1,100	1,126	1,072	945	1,194	1,264	1,312	748	610	796	854	656	607	778	1,009	10.91	10.29	9.99	9.19	10.54	11.15	11.50	8.21	7.43	8.22	8.98	7.69	7.51	8.29	8.85
10/22 1:10	1,563	1,335	1,341	1,123	1,516	1,644	1,561	866	758	742	1,047	663	732	839	1,086	11.00	9.23	9.41	9.23	10.39	10.76	10.73	7.58	7.49	7.11	8.81	6.85	7.12	7.41	8.02
10/22 1:20	1,335	1,122	1,208	1,053	1,209	1,467	1,394	1,183	891	871	979	664	730	770	687	9.84	8.65	8.71	9.01	9.61	9.99	10.55	8.55	8.08	7.62	8.36	6.96	7.03	7.26	6.95
10/22 1:30	1,312	1,206	1,327	1,123	1,417	1,590	1,668	1,044	746	829	670	616	554	916	1,157	9.85	9.10	9.02	8.71	9.78	10.46	11.57	8.09	7.28	7.39	7.22	6.83	6.34	7.60	8.23
10/22 1:40	1,388	1,285	1,184	1,102	1,580	1,666	1,626	1,013	624	919	905	826	696	1,059	1,465	10.11	9.33	8.79	9.20	10.63	10.64	10.76	8.09	7.02	7.45	8.23	7.45	6.88	7.96	9.05
10/22 1:50	1,519	1,332	1,530	1,480	1,782	1,561	1,858	892	858	624	955	760	1,150	1,087	848	10.42	9.32	9.86	10.38	11.22	10.32	11.44	7.56	7.87	6.91	7.83	7.25	8.13	8.19	7.24
10/22 2:00	1,675	1,359	1,787	1,435	1,781	1,822	1,828	1,148	743	681	920	770	868	977	1,176	10.73	9.53	10.64	10.02	11.13	11.33	11.27	8.35	7.43	6.78	7.74	7.09	7.47	7.81	8.26
10/22 2:10	1,847	1,743	1,821	1,756	1,945	1,956	2,008	1,335	1,133	982	1,197	912	782	1,155	1,104	11.66	10.97	10.93	11.08	11.80	12.07	11.97	8.98	8.63	7.81	8.68	7.74	7.07	8.23	7.98
10/22 2:20	1,974	1,977	1,894	1,842	2,019	1,988	1,979	1,504	1,124	948	1,351	960	1,003																	

10/22 5:00	1,599	1,306	1,501	1,309	1,415	1,643	1,795	1,843	1,076	1,389	1,740	1,337	1,267	1,784	2,003	10.03	9.12	9.56	9.38	10.12	10.64	10.91	9.79	8.19	8.77	9.74	8.58	8.33	9.92	10.18
10/22 5:10	1,581	1,073	1,264	1,372	1,502	1,608	1,678	1,753	1,266	1,193	1,586	1,127	1,097	1,548	1,807	9.97	8.39	8.83	9.50	10.14	10.52	10.54	9.57	8.71	8.23	9.19	8.24	7.85	9.13	9.63
10/22 5:20	1,354	895	1,203	1,193	1,580	1,675	1,761	1,341	921	1,052	1,441	922	857	1,465	1,552	9.23	7.83	8.68	8.93	10.49	10.67	10.90	8.75	7.78	7.81	8.98	7.57	7.36	9.12	9.20
10/22 5:30	991	591	1,022	1,071	1,706	1,924	2,014	913	666	834	1,403	889	595	1,008	1,124	8.40	6.82	8.17	8.80	11.34	11.97	12.56	7.59	7.25	7.19	8.84	7.39	6.43	7.62	8.14
10/22 5:40	904	599	941	1,019	1,651	1,860	1,984	824	692	902	1,188	712	494	891	1,066	7.97	6.91	7.90	8.49	11.04	11.63	12.26	7.30	7.36	7.58	8.27	7.00	6.12	7.44	8.05
10/22 5:50	1,055	681	930	1,045	1,380	1,419	1,529	823	703	800	943	538	448	700	727	8.60	7.10	7.85	8.66	9.98	9.95	10.45	7.51	7.31	7.34	7.50	6.39	6.12	6.79	7.12
10/22 6:00	548	263	470	561	957	946	948	581	511	582	822	551	494	789	798	6.88	5.11	6.19	6.87	8.93	8.58	8.54	6.82	6.89	6.43	7.46	6.67	6.35	7.46	7.41
10/22 6:10	294	247	370	437	631	702	604	663	417	485	680	578	521	662	747	5.57	5.34	5.72	6.48	7.48	7.76	7.38	7.03	6.31	6.21	6.97	6.91	6.26	6.80	7.23
10/22 6:20	306	373	549	541	874	834	873	528	309	371	598	534	359	511	624	5.32	5.64	6.29	6.73	8.29	8.41	8.36	6.63	5.64	5.82	6.77	6.43	5.56	6.15	6.65
10/22 6:30	397	370	601	502	898	942	921	564	312	451	679	506	455	426	613	5.66	5.70	6.82	6.49	8.39	8.64	8.58	6.60	5.81	6.11	6.97	6.37	6.18	5.58	6.78
10/22 6:40	485	388	724	763	1,153	1,163	1,105	572	432	374	771	445	475	789	768	6.14	5.76	7.33	7.75	9.12	9.38	9.15	6.71	6.28	5.74	7.25	5.98	6.03	7.20	7.21
10/22 6:50	623	544	820	828	1,316	1,417	1,502	547	280	267	523	324	359	481	591	6.78	6.64	7.63	8.06	9.48	10.28	10.79	6.59	5.38	5.20	6.21	5.50	5.76	5.98	6.44
10/22 7:00	733	504	802	750	1,083	1,078	1,272	395	245	194	361	376	280	250	221	7.62	6.32	7.40	7.62	8.71	8.92	9.64	5.88	5.31	4.67	5.77	5.83	5.05	4.75	4.74
10/22 7:10	772	676	789	864	1,077	1,112	1,211	432	315	181	364	327	293	185	172	7.43	7.33	7.34	8.22	8.79	9.34	9.76	6.29	5.74	4.87	5.66	5.56	5.39	4.43	4.55
10/22 7:20	728	768	996	1,064	1,236	1,082	1,131	393	309	515	357	271	281	284	458	7.40	7.49	8.33	9.44	9.71	9.29	9.60	5.73	5.80	6.42	5.74	5.33	5.32	5.27	6.13
10/22 7:30	1,084	813	923	772	818	812	838	299	110	291	372	340	536	591	414	9.05	7.70	7.71	8.10	8.19	7.67	8.60	5.49	4.00	5.27	5.58	5.75	6.31	6.62	6.07
10/22 7:40	620	613	880	825	840	555	679	181	229	301	500	632	400	355	307	7.23	7.22	7.84	8.18	8.19	6.72	7.84	4.88	5.21	5.37	6.58	6.84	5.72	5.43	5.47
10/22 7:50	488	510	699	723	905	717	559	317	385	437	409	307	260	279	320	6.55	6.63	6.90	7.90	8.65	7.84	7.40	5.74	6.27	6.13	6.08	5.59	5.04	5.12	5.58
10/22 8:00	586	578	656	540	755	594	527	400	132	223	297	357	361	323	466	6.57	6.74	6.93	6.98	7.90	6.88	7.06	5.94	4.42	5.00	5.32	5.63	5.76	5.34	6.29
10/22 8:10	766	616	640	466	572	506	534	244	126	198	245	325	353	326	555	7.61	6.73	6.82	6.38	7.02	6.42	6.96	5.32	4.44	4.88	5.01	5.67	5.84	5.27	6.51
10/22 8:20	721	503	578	585	446	720	742	145	115	265	304	224	179	259	199	6.35	6.59	6.81	7.10	6.69	7.60	7.63	4.42	4.44	5.36	5.45	5.08	4.71	4.95	4.81
10/22 8:30	637	568	693	535	744	609	598	76	150	263	301	152	97	151	300	7.32	6.91	7.23	6.68	7.77	6.91	7.16	4.04	4.45	5.33	5.43	4.47	3.99	4.12	5.34
10/22 8:40	712	825	957	736	680	701	734	207	205	326	325	305	178	238	309	7.35	8.03	7.89	7.64	7.52	7.25	7.61	4.92	4.99	5.55	5.66	5.52	4.72	4.75	5.55
10/22 8:50	727	723	1,110	999	1,176	1,068	1,058	389	208	637	518	382	384	352	693	7.38	7.30	8.67	8.37	9.55	8.79	8.80	6.01	5.26	6.90	6.38	5.99	5.94	5.33	6.94
10/22 9:00	847	913	1,166	882	1,121	1,068	1,418	420	349	354	325	432	687	529	431	7.84	8.10	8.81	8.24	9.18	8.56	10.12	6.19	5.81	5.57	5.71	5.79	6.90	6.29	6.10
10/22 9:10	838	903	933	867	1,107	859	1,245	579	707	597	544	336	495	601	475	7.97	7.70	8.05	8.32	8.90	7.95	9.48	6.66	7.27	6.85	6.66	5.66	6.20	6.49	6.12
10/22 9:20	837	1,066	1,070	813	799	1,024	913	500	409	587	884	625	428	269	372	7.95	8.92	8.51	8.01	7.89	8.37	8.59	6.49	6.07	6.62	7.58	7.01	6.17	5.08	5.69
10/22 9:30	1,190	1,071	900	862	1,134	1,181	1,259	657	202	307	367	537	638	634	739	8.98	8.81	8.13	8.65	8.74	8.97	9.62	6.93	4.86	5.39	5.60	6.49	6.69	6.70	7.23
10/22 9:40	833	808	922	736	774	698	908	222	165	388	266	238	291	305	391	7.81	7.94	7.84	7.41	7.36	7.40	8.41	4.97	4.84	5.85	5.39	5.09	5.36	5.24	5.80
10/22 9:50	874	1,007	785	523	462	625	711	158	218	218	327	322	418	415	314	8.35	8.30	7.34	6.92	6.52	6.97	7.85	4.55	5.23	4.98	5.58	5.50	5.80	5.82	5.60
10/22 10:00	479	415	526	575	740	662	506	363	379	417	535	549	432	337	375	6.61	6.30	6.51	6.89	7.89	7.38	7.00	5.91	6.31	5.92	6.42	6.40	6.01	5.48	5.85
10/22 10:10	618	550	723	696	868	974	906	361	267	132	246	246	270	252	358	7.11	6.71	7.29	7.66	8.00	8.33	8.28	5.79	5.43	4.15	5.21	5.20	5.03	4.69	5.56
10/22 10:20	417	554	691	725	802	793	757	293	186	247	141	73	101	133	245	6.20	6.79	7.06	7.47	7.76	7.67	7.67	5.44	4.96	5.06	4.39	3.87	4.02	4.12	5.09
10/22 10:30	341	413	593	686	813	811	724	206	183	122	186	225	366	364	196	6.06	6.22	6.65	7.54	8.11	7.84	7.66	4.92	4.99	4.42	4.91	4.99	5.58	5.76	4.83
10/22 10:40	434	548	721	563	784	901	833	146	188	196	335	500	635	487	360	6.44	6.83	7.40	6.76	7.65	8.40	8.53	4.59	4.69	4.95	5.56	6.31	6.81	6.27	5.96
10/22 10:50	707	754	806	634	730	714	781	224	154	215	328	363	455	514	767	7.65	7.99	7.68	7.39	7.69	7.44	7.83	5.10	4.74	5.10	5.56	5.74	5.95	6.24	7.05
10/22 11:00	820	875	1,027	913	1,052	941	1,069	172	300	377	394	323	162	194	206	8.22	8.14	8.40	8.69	8.98	8.54	8.92	4.85	5.77	5.69	5.82	5.45	4.57	4.46	4.77
10/22 11:10	396	478	591	550	716	786	751	229	211	223	277	241	216	168	265	6.20	6.51	6.94	7.04	7.83	8.01	7.97	5.25	5.16	5.15	5.55	5.14	5.04	4.23	5.39
10/22 11:20	337	360	430	490	545	572	715	279	369	531	500	291	258	243	301	5.78	5.91	6.21	7.04	6.97	6.99	7.88	5.37	6.03	6.70	6.49	5.60	5.29	5.20	5.57
10/22 11:30	347	423	523	456	483	358	412	356	458	482	486	587	428	348	268	6.18	6.26	6.55	6.49	6.51	5.76	6.09	5.81	6.41	6.28	6.45	6.78	6.09	5.52	5.34
10/22 11:40	245	192	197	156	184	145	172	246	185	224	257	223	158	128	184	4.91	4.47	4.52	4.46	4.61	4.21	4.61	5.32	4.96	5.01	5.09	4.85	4.49	4.11	4.71
10/22 11:50	161	95	117	140	122	90	116	87	74	141	181	183	156	121	131	4.76	4.13	4.14	4.38	4.37	3.72	4.22	4.10	3.94	4.61	4.68	4.61	4.48	3.87	4.21
10/22 12:00	99	94	118	96	138	128	133	39	89	73	113	154	117	148	71	3.94	3.88	4.09	3.96	4.62	4.47	4.45	3.38	4.09	3.74	4.02	4.62	4.13	4.44	3.84
10/22 12:10	49	41	47	40	161	135	173	-6	29	2	28	30	8	40	14	3.25	3.13	3.17	3.04	4.60	4.39	4.90	2.45	3.27	2.71	3.13	3.34	3.01	3.15	3.13
10/22 12:20	10	-6	19	34	117	136	95	-7	-12	-12	-11	-																		

10/22 14:50	220	95	182	183	199	205	165	15	101	81	109	89	104	130	121	5.39	3.98	4.87	5.32	5.50	5.24	5.25	3.27	4.50	4.27	4.48	4.01	4.53	4.46	4.45
10/22 15:00	175	24	163	231	276	273	248	10	143	147	205	192	209	227	233	4.74	2.41	4.63	5.70	5.95	5.88	5.91	3.00	4.83	4.74	5.03	4.79	5.27	5.14	5.12
10/22 15:10	248	83	197	224	274	237	194	14	155	157	208	179	195	233	253	5.53	3.54	4.98	5.57	5.88	5.54	5.32	3.07	4.98	4.91	5.06	4.81	5.13	5.21	5.25
10/22 15:20	106	-6	104	213	286	260	242	42	132	127	201	142	157	199	223	3.71	1.74	3.80	5.66	6.14	6.02	5.89	3.68	4.97	4.70	5.06	4.78	4.80	5.17	5.02
10/22 15:30	67	-12	81	199	256	264	258	42	158	150	205	161	167	192	193	3.29	1.54	3.25	5.35	5.91	5.66	5.85	3.49	5.07	4.82	5.23	4.74	4.91	5.02	4.99
10/22 15:40	78	-9	49	224	290	283	277	36	148	142	204	153	163	207	234	3.43	1.64	2.74	5.65	6.19	5.67	6.06	3.46	5.04	4.84	5.39	4.73	4.92	5.29	5.27
10/22 15:50	53	10	76	171	235	226	236	51	189	163	228	141	119	217	228	3.73	2.84	3.47	4.86	5.60	5.23	5.59	3.79	5.20	4.85	5.38	4.78	4.51	4.88	5.02
10/22 16:00	119	-10	77	177	276	276	284	71	194	195	268	212	190	225	229	4.15	2.17	3.58	5.14	5.97	5.54	5.91	3.86	5.39	5.12	5.48	5.13	5.17	5.32	5.30
10/22 16:10	244	54	171	179	209	182	137	58	180	181	284	237	257	317	313	5.25	4.27	4.69	4.96	5.30	5.12	4.72	3.67	5.21	5.04	5.68	5.23	5.51	5.70	5.64
10/22 16:20	92	10	52	61	65	40	30	108	218	193	263	207	221	249	237	4.02	3.22	3.55	3.75	3.68	3.16	3.20	4.23	5.43	5.07	5.49	4.99	5.29	5.25	5.04
10/22 16:30	51	19	26	49	37	25	0	79	128	111	174	137	123	138	106	3.38	3.00	2.95	3.38	3.34	3.10	2.66	4.23	4.66	4.31	5.05	4.54	4.57	4.46	4.23
10/22 16:40	24	7	15	41	39	22	17	11	-11	-11	30	13	0	-1	32	3.32	2.55	2.88	3.40	3.40	3.08	3.02	2.56	1.39	1.48	3.28	3.18	3.40	3.18	3.30
10/22 16:50	144	77	26	118	93	61	63	20	-9	-10	61	126	143	66	159	4.56	3.86	2.95	4.39	4.26	3.70	3.80	3.13	2.94	2.18	3.61	4.57	4.65	3.40	4.71
10/22 17:00	189	86	70	146	136	111	90	176	110	-9	75	132	225	111	247	4.91	3.67	3.42	4.64	4.40	4.26	4.05	4.99	4.25	2.85	3.27	4.60	5.32	3.51	5.27
10/22 17:10	166	103	124	132	123	108	98	257	80	-11	161	235	220	183	206	4.63	3.94	4.15	4.53	4.19	4.24	4.29	5.38	3.92	2.01	4.56	5.41	5.30	5.21	5.04
10/22 17:20	215	112	194	196	183	161	147	218	40	-11	166	216	234	205	250	5.03	4.24	4.66	5.10	5.00	4.64	4.71	5.20	3.53	1.77	4.85	5.30	5.44	5.30	5.23
10/22 17:30	344	129	306	295	285	260	245	167	2	-9	340	354	336	391	426	5.99	4.10	5.69	5.94	6.09	5.46	5.75	4.82	2.69	2.34	6.29	6.32	6.02	6.48	6.22
10/22 17:40	419	95	374	347	388	355	342	252	5	-10	488	462	407	481	469	6.59	3.56	6.24	6.62	6.67	6.03	6.26	5.53	2.71	2.58	7.30	6.75	6.26	6.93	6.44
10/22 17:50	383	238	440	457	534	521	515	220	18	-10	605	451	400	571	570	6.03	5.17	6.62	7.33	7.30	7.05	6.84	5.09	2.75	2.64	7.45	6.70	6.14	7.37	6.91
10/22 18:00	434	261	471	472	548	521	478	342	118	65	705	521	454	639	625	6.04	5.37	6.75	7.22	7.24	7.30	6.88	5.91	3.88	3.15	7.53	6.76	6.51	7.50	6.97
10/22 18:10	338	411	443	508	552	525	472	446	180	172	763	618	629	637	554	5.49	6.95	6.76	7.46	7.22	7.25	7.37	6.12	4.14	3.74	7.68	7.00	7.25	7.32	6.73
10/22 18:20	137	332	451	455	503	453	425	480	175	123	735	539	529	648	598	6.06	5.82	6.76	7.21	7.21	7.08	7.13	6.33	4.00	3.22	7.64	6.66	6.88	7.44	6.84
10/22 18:30	-1	209	538	504	581	533	534	645	114	45	844	629	612	726	705	7.54	4.77	7.05	7.35	7.66	7.64	7.84	7.04	3.84	2.67	8.15	7.04	7.28	7.78	7.13
10/22 18:40	-1	224	510	486	636	586	583	605	124	33	1,002	768	723	786	701	7.67	4.81	6.78	7.25	7.84	7.87	7.81	6.68	3.92	3.17	8.93	7.68	7.71	7.96	7.14
10/22 18:50	-1	173	504	488	595	544	554	715	126	54	1,179	847	730	802	773	8.14	4.24	6.79	7.16	7.61	7.58	7.60	7.10	3.65	3.32	9.31	7.89	7.70	8.13	7.41
10/22 19:00	-1	403	686	684	799	729	688	870	158	78	1,034	734	683	800	780	8.15	6.07	7.62	8.08	8.35	8.21	8.14	7.57	3.95	3.05	8.66	7.47	7.55	7.96	7.25
10/22 19:10	-1	628	651	697	901	849	840	561	348	190	1,032	747	672	777	711	7.65	7.56	7.61	8.13	8.60	8.47	8.47	6.42	5.71	3.76	8.64	7.44	7.35	7.79	7.09
10/22 19:20	-1	645	510	698	932	883	860	551	556	350	1,001	714	625	717	654	8.29	7.63	6.89	8.10	8.53	8.39	8.21	6.51	6.85	6.00	8.40	7.06	7.04	7.49	7.02
10/22 19:30	-1	734	472	702	782	710	679	357	413	353	784	547	536	714	679	8.15	8.10	6.83	8.10	8.52	7.86	7.66	5.82	6.48	6.00	7.70	6.55	6.61	7.46	7.07
10/22 19:40	-1	669	274	656	750	671	662	254	352	373	635	453	457	640	651	9.04	8.07	4.58	7.70	8.39	7.46	8.07	5.13	6.37	6.28	7.25	6.02	6.31	7.22	6.84
10/22 19:50	-1	462	175	424	637	657	645	198	274	320	501	318	283	401	437	8.39	7.19	3.74	6.62	7.78	7.29	8.06	4.82	6.06	6.02	6.82	5.51	5.48	5.93	6.09
10/22 20:00	-1	331	148	336	429	468	493	155	207	215	390	271	242	309	314	7.78	6.29	3.73	6.28	6.68	6.31	7.06	4.72	5.38	5.29	6.40	5.38	5.33	5.50	5.57
10/22 20:10	-1	282	266	292	354	356	342	198	143	132	437	301	250	312	309	5.94	6.07	5.50	6.04	6.49	5.71	6.32	5.02	4.46	4.03	6.64	5.57	5.42	5.61	5.67
10/22 20:20	-1	251	246	292	334	355	323	210	121	78	472	275	228	246	206	6.06	5.66	5.40	6.01	6.32	6.01	6.18	5.02	4.09	3.05	6.78	5.50	5.18	5.14	4.88
10/22 20:30	-1	235	152	283	358	352	327	264	134	69	443	279	250	315	296	6.68	5.55	4.30	5.81	6.21	5.99	6.32	5.33	4.17	3.04	6.61	5.58	5.37	5.56	5.51
10/22 20:40	-1	269	123	315	387	380	360	243	167	105	480	320	266	354	352	7.46	5.65	3.72	5.84	6.16	6.06	6.35	5.22	4.62	3.52	6.83	5.80	5.42	5.83	5.72
10/22 20:50	-1	304	150	317	384	361	318	282	167	101	544	374	351	457	459	7.69	5.82	3.88	5.96	6.25	5.92	6.08	5.60	4.58	3.54	7.12	5.99	5.95	6.35	6.20
10/22 21:00	-1	275	70	322	358	322	312	348	177	118	643	445	385	473	429	7.93	5.54	2.57	6.08	6.06	5.90	5.94	5.89	4.50	3.54	7.46	6.37	6.10	6.53	6.09
10/22 21:10	-1	35	-6	70	81	79	70	85	39	28	133	93	87	101	98	7.83	5.68	5.41	6.43	6.57	6.28	6.13	6.32	6.29	5.70	7.46	6.13	6.14	6.68	6.28
10/22 21:20	-1	-9	-9	-10	-9	-12	-10	-11	-9	-9	-10	-9	-9	-10	-10	8.41	6.17	6.46	6.43	6.72	6.29	5.96	6.71	6.69	6.49	7.45	6.05	6.10	7.03	6.51
10/22 21:30	-1	200	78	236	366	305	251	250	136	103	417	273	253	321	287	9.19	6.36	4.77	6.69	7.29	7.02	6.84	6.50	5.87	5.18	7.84	6.41	6.31	6.97	6.45
10/22 21:40	-1	242	76	362	512	510	488	304	382	293	783	512	402	560	486	8.03	5.21	2.92	6.37	7.27	6.95	7.37	5.61	6.65	6.06	8.12	6.69	6.23	7.04	6.45
10/22 21:50	-1	324	121	380	442	490	469	298	358	277	855	570	491	692	667	7.53	6.14	3.38	6.30	6.79	6.59	7.12	5.63	5.91	5.06	8.17	6.85	6.60	7.42	7.06
10/22 22:00	-1	216	45	377	397	389	457	173	273	377	896	591	519	700	684	7.99	5.27	2.16	6.13	6.54	6.01	6.96	4.57	5.63	6.20	8.16	6.67	6.58	7.15	6.94
10/22 22:10	-1	297	67	547	638	608	575	77	258	360	693	451	423	607	599	9.04	5.59	2.68	6.94	7.72	7.27	7.58	3.80	5.65	6.16	7.49	6.09	6.19	6.99	6.76
10/22 22:20	-1	244	29	548	666	622	480	-5	83	152	372	263	234	365	366	8.50	5.23	2.28												

10/23 0:30	-1	321	400	458	471	338	277	143	166	70	679	448	401	508	545	7.63	5.73	6.22	6.79	6.37	5.68	5.37	4.38	4.25	3.13	7.43	6.33	6.15	6.64	6.47
10/23 0:40	-1	303	338	435	431	311	214	118	60	20	448	342	349	381	360	7.20	5.76	5.82	6.41	6.32	5.69	5.10	4.23	3.54	2.86	6.69	5.82	6.03	5.99	5.87
10/23 0:50	-1	180	254	307	336	283	194	108	-4	-11	360	332	345	371	356	5.48	4.69	5.16	5.72	5.78	5.47	5.04	4.15	2.47	2.12	6.57	5.76	5.89	5.87	5.80
10/23 1:00	-1	174	185	253	222	191	164	130	97	67	369	288	285	295	285	5.92	4.50	4.17	5.08	4.96	5.01	5.02	4.46	3.87	3.69	6.28	5.43	5.47	5.39	5.34
10/23 1:10	-1	194	207	248	284	266	213	76	124	74	268	208	204	205	175	5.82	5.15	4.82	5.47	5.55	5.51	5.46	3.90	4.17	3.62	5.58	5.01	5.14	4.82	4.67
10/23 1:20	-1	309	322	317	325	259	172	57	72	20	216	196	232	234	200	5.75	6.04	5.91	6.12	5.92	5.43	5.09	3.70	3.78	2.91	5.29	4.82	5.27	5.03	4.84
10/23 1:30	-1	197	147	189	189	133	119	7	23	-2	193	184	171	179	154	5.68	5.07	4.48	5.04	4.86	5.43	4.48	2.94	3.00	2.53	5.29	4.85	4.92	4.56	4.51
10/23 1:40	-1	62	15	69	98	74	62	-1	-3	1	158	111	92	123	161	5.10	3.41	2.64	3.74	4.05	3.72	3.52	3.06	2.50	2.63	4.78	4.33	4.18	4.14	4.54
10/23 1:50	-1	35	-6	44	93	90	57	32	51	73	247	169	167	154	127	6.36	3.01	2.26	3.45	3.86	3.81	3.46	3.49	3.66	4.06	5.56	4.74	4.86	4.62	4.33
10/23 2:00	-1	71	172	158	277	171	176	62	83	184	393	262	191	248	269	8.21	3.27	4.47	4.59	5.26	4.38	4.63	3.62	3.86	4.99	6.43	5.35	4.93	5.03	5.12
10/23 2:10	-1	58	142	184	373	379	254	30	186	263	481	331	275	280	313	7.94	2.97	4.12	4.62	5.71	5.91	5.22	3.27	5.04	5.57	6.63	5.59	5.48	5.18	5.37
10/23 2:20	-1	19	117	201	486	473	433	37	166	207	405	328	316	343	364	6.38	2.45	3.88	4.93	6.32	6.46	6.23	3.56	4.74	4.91	6.54	5.63	5.83	5.71	5.74
10/23 2:30	-1	-1	82	214	460	432	338	40	114	144	359	272	299	335	331	5.31	2.05	3.62	5.01	6.30	6.05	6.08	3.40	4.08	4.30	6.29	5.50	5.72	5.49	5.50
10/23 2:40	-1	1	78	269	417	274	212	184	254	279	466	336	385	402	358	4.63	2.47	3.37	5.33	6.26	5.38	5.06	4.76	5.35	5.40	6.87	5.82	6.09	5.96	5.83
10/23 2:50	-1	23	128	345	419	277	186	386	419	295	535	379	346	299	227	5.66	2.72	3.77	5.88	6.09	5.32	5.03	6.10	6.25	5.28	7.16	5.95	5.84	5.34	5.18
10/23 3:00	-1	62	134	301	379	245	174	313	288	258	557	375	320	280	242	6.03	3.28	3.71	5.52	5.85	5.16	4.84	5.58	5.44	5.12	7.22	5.93	5.54	5.27	5.18
10/23 3:10	-1	113	127	355	480	365	289	278	320	274	470	336	280	291	239	6.52	3.78	3.46	6.09	6.37	5.98	5.86	5.37	5.69	5.47	6.90	5.74	5.40	5.46	5.07
10/23 3:20	-1	154	73	373	422	386	341	368	311	287	531	324	259	274	282	6.97	4.20	2.85	6.31	6.32	6.11	6.26	5.85	5.73	5.24	7.01	5.75	5.34	5.28	5.35
10/23 3:30	-1	138	49	403	485	416	269	446	414	318	442	254	239	320	340	6.58	4.16	2.68	6.45	6.66	6.18	5.65	6.14	6.22	5.74	6.74	5.32	5.23	5.57	5.66
10/23 3:40	-1	120	51	378	417	405	380	440	598	483	620	259	272	316	339	6.31	4.08	2.70	6.33	6.29	6.17	6.52	6.21	7.20	6.49	7.46	5.18	5.36	5.35	5.61
10/23 3:50	-1	142	58	353	422	389	260	410	462	346	674	413	368	368	438	6.22	4.33	3.02	6.28	6.26	5.96	5.67	6.10	6.45	5.98	7.52	6.09	5.92	5.70	6.03
10/23 4:00	-1	95	65	366	386	352	341	389	544	392	611	485	512	500	402	6.02	3.56	2.95	6.23	6.12	5.78	6.26	5.89	6.65	6.04	7.24	6.49	6.48	6.36	6.03
10/23 4:10	-1	62	46	298	381	321	276	364	646	557	750	598	529	525	444	5.77	3.22	2.83	5.70	6.00	5.74	5.68	5.76	7.21	6.95	7.83	6.69	6.54	6.45	6.15
10/23 4:20	-1	45	36	213	290	280	210	382	611	547	696	518	441	378	421	5.74	3.14	2.72	5.23	5.42	5.38	5.10	5.95	7.26	6.83	7.69	6.35	6.24	5.50	5.92
10/23 4:30	-2	65	37	231	289	205	177	363	526	428	550	367	290	285	349	5.53	3.37	2.72	5.36	5.60	4.92	5.01	5.70	6.81	6.29	7.26	5.79	5.52	5.19	5.65
10/23 4:40	[-11059]	129	34	221	271	241	239	464	487	383	481	340	313	265	252	[-11058]	4.28	2.69	5.36	5.52	5.34	5.49	6.38	6.55	6.06	6.81	5.59	5.68	5.03	5.19
10/23 4:50	-10	87	27	192	265	290	196	491	383	333	501	351	274	267	352	6.14	3.76	2.81	4.99	5.41	5.51	5.20	6.41	6.14	5.72	7.11	5.91	5.38	5.03	5.73
10/23 5:00	317	140	40	259	348	352	253	449	510	380	477	423	430	411	337	5.77	4.48	2.76	5.62	6.07	6.05	5.71	6.16	6.52	5.94	6.77	6.11	6.22	6.07	5.57
10/23 5:10	424	140	45	384	379	302	277	318	423	369	609	407	374	471	563	6.00	4.26	2.61	6.35	6.09	5.65	5.87	5.55	6.33	6.08	7.40	5.98	5.75	6.03	6.54
10/23 5:20	362	156	61	333	352	280	243	392	571	452	633	345	403	427	540	5.70	4.67	2.94	6.16	6.05	5.56	5.69	5.90	6.92	6.53	7.51	5.83	5.96	5.89	6.33
10/23 5:30	301	132	39	354	333	297	294	438	626	516	675	475	357	494	528	5.49	4.29	2.71	6.16	5.79	5.60	5.98	6.37	7.20	6.62	7.51	6.49	5.88	6.21	6.45
10/23 5:40	266	95	47	433	497	516	463	475	656	476	700	451	393	478	538	4.87	3.69	2.59	6.56	6.49	6.60	6.83	6.24	7.32	6.45	7.69	6.11	5.91	5.96	6.44
10/23 5:50	341	126	45	519	562	604	456	470	569	436	702	536	391	462	669	5.75	4.22	2.75	7.11	6.94	7.14	6.81	6.23	6.89	6.37	7.65	6.59	5.89	5.97	6.83
10/23 6:00	332	128	59	591	650	616	604	423	537	437	618	391	513	731	746	5.32	4.01	2.93	7.53	7.25	7.03	7.48	5.94	6.83	6.30	7.31	5.98	6.55	7.38	7.31
10/23 6:10	270	69	84	679	644	591	556	365	489	398	681	645	551	844	785	5.03	3.44	3.22	7.69	7.13	6.93	7.28	5.81	6.77	6.18	7.58	6.92	6.75	7.75	7.25
10/23 6:20	305	87	83	553	498	581	595	306	456	430	725	677	672	871	830	5.43	3.69	3.12	6.98	6.90	6.69	7.32	5.47	6.59	6.34	7.71	6.94	7.04	7.72	7.36
10/23 6:30	222	32	138	443	584	454	537	217	416	433	666	526	686	823	799	4.76	2.74	4.04	6.35	7.33	6.12	7.07	5.03	6.41	6.23	7.52	6.50	7.09	7.32	7.17
10/23 6:40	244	54	251	527	554	498	358	298	566	468	694	676	624	837	684	4.97	2.91	4.71	6.77	7.15	6.65	6.03	5.46	6.75	6.36	7.66	7.03	6.91	7.50	7.00
10/23 6:50	143	22	128	429	437	402	287	278	566	595	805	812	783	854	852	3.89	2.64	3.61	6.59	6.36	5.90	5.40	5.31	7.00	6.94	8.11	7.48	7.35	7.44	7.58
10/23 7:00	208	29	102	572	609	398	342	296	461	549	1,074	720	698	938	827	4.79	2.93	3.31	7.06	7.28	5.92	5.92	5.21	6.48	6.72	8.79	7.20	7.06	7.87	7.40
10/23 7:10	313	107	83	494	485	487	421	330	414	497	982	767	666	697	732	5.50	3.87	3.21	6.80	6.49	6.74	6.70	5.79	6.26	6.65	8.58	7.28	7.02	7.08	7.25
10/23 7:20	270	61	105	521	384	364	414	158	493	487	637	637	634	591	533	5.01	3.31	3.29	6.85	5.91	5.73	6.69	4.49	6.49	6.46	7.50	7.03	6.67	6.51	6.42
10/23 7:30	252	41	71	420	391	338	321	315	338	440	736	567	420	410	368	4.81	3.44	3.45	6.23	6.11	5.75	5.86	5.48	5.94	6.26	7.82	6.72	6.04	5.80	5.69
10/23 7:40	159	6	35	252	308	401	312	244	684	569	608	360	361	229	325	4.18	2.59	3.00	5.28	5.78	6.19	5.73	4.99	7.47	6.89	7.26	5.88	5.91	4.79	5.63
10/23 7:50	122	10	30	256	342	312	245	429	553	476	490	309	202	194	217	3.51	2.82	2.97	5.33	6.13	5.57	5.57	5.95	6.55	6.21	6.74	5.51	4.75	4.66	5.17
10/23 8:00	91	45	51	257	238	230	235	120	288	252	342	179	193	249	287	3.65	3.07	3.26	5.36</											

10/23 10:20	267	168	359	642	761	750	545	295	173	60	788	839	811	804	1,000	5.11	4.25	5.82	7.29	7.72	7.37	7.09	5.50	4.48	3.45	7.94	7.57	7.51	7.61	7.88
10/23 10:30	341	90	384	486	487	513	504	362	167	115	1,426	1,038	804	1,219	1,125	5.82	3.54	6.03	6.67	6.69	6.70	6.89	5.90	4.51	4.00	9.84	8.13	7.45	8.88	8.11
10/23 10:40	336	116	299	550	713	766	519	322	142	137	1,145	581	449	836	1,035	5.79	3.75	5.28	7.05	7.62	7.65	6.98	5.19	4.13	3.79	8.88	6.70	6.03	7.61	7.99
10/23 10:50	272	83	270	460	625	768	706	366	184	104	985	710	695	727	755	5.17	3.50	5.24	6.38	7.43	7.63	7.36	5.65	4.39	3.74	8.43	7.27	7.18	7.08	7.19
10/23 11:00	217	123	191	406	669	598	547	327	84	69	923	826	744	868	885	4.96	4.02	4.95	6.05	7.48	6.85	6.95	5.46	3.68	3.39	8.43	7.53	7.17	7.62	7.57
10/23 11:10	204	61	289	374	544	457	503	124	110	99	820	576	766	767	783	4.93	3.29	5.64	6.25	7.20	6.40	7.15	4.28	3.89	3.63	7.94	6.83	7.45	7.30	7.30
10/23 11:20	316	89	305	474	632	811	787	427	186	71	653	475	404	342	532	5.46	3.60	5.50	6.54	7.59	8.03	8.41	6.33	4.85	3.62	7.39	6.43	5.99	5.44	6.39
10/23 11:30	259	43	191	406	643	632	697	501	284	85	528	514	643	511	707	5.34	3.04	4.34	6.35	7.47	6.99	8.11	6.52	5.34	3.89	6.83	6.79	6.96	6.32	7.32
10/23 11:40	363	162	359	425	690	744	883	322	175	108	545	450	594	759	767	5.62	4.36	6.08	6.53	7.79	7.63	8.79	5.40	4.77	4.05	6.76	6.31	6.73	7.37	7.09
10/23 11:50	494	150	267	619	879	936	1,023	411	229	82	788	731	619	575	851	6.09	4.19	4.81	7.02	8.32	8.31	9.02	6.10	5.11	3.72	8.08	7.28	7.00	6.57	7.47
10/23 12:00	358	163	168	519	911	859	693	534	180	58	1,013	754	751	928	1,106	5.62	4.21	4.48	6.90	8.55	8.02	7.40	6.38	4.53	3.35	8.55	7.08	7.27	8.07	8.22
10/23 12:10	370	265	377	776	940	959	855	586	134	61	786	749	678	1,035	1,253	5.93	5.09	5.71	7.89	8.46	8.74	8.09	6.59	4.27	3.27	8.06	7.61	7.29	8.25	8.47
10/23 12:20	434	331	548	712	1,100	1,092	900	249	110	96	1,098	994	1,004	976	1,399	5.91	5.39	6.91	7.78	9.17	9.33	8.63	5.35	4.10	3.73	8.78	8.17	7.85	7.95	9.06
10/23 12:30	431	376	539	895	1,131	1,110	1,067	125	156	144	788	723	527	475	855	6.18	5.89	6.26	8.28	9.07	8.99	9.04	4.18	4.46	4.06	7.81	7.25	6.53	6.26	7.66
10/23 12:40	438	331	541	836	928	1,010	994	112	31	42	569	561	726	1,088	1,386	6.05	5.41	6.85	8.05	8.85	8.54	8.86	4.25	2.96	3.34	7.03	7.02	7.44	8.58	9.09
10/23 12:50	526	265	495	778	1,138	1,083	1,067	276	115	27	834	966	1,153	1,447	1,585	6.55	5.36	6.69	8.03	9.67	8.97	9.53	5.16	4.15	3.12	7.72	8.21	8.50	9.73	9.51
10/23 13:00	739	305	848	1,021	1,249	1,267	1,076	326	61	39	837	663	728	1,063	1,240	7.68	5.41	8.08	9.23	9.84	9.61	9.16	5.56	3.54	3.35	7.94	6.94	7.40	8.69	8.45
10/23 13:10	866	561	929	1,117	1,260	1,264	1,007	27	30	24	644	632	776	908	1,041	8.09	6.62	8.26	9.53	9.88	9.68	9.00	3.12	3.36	3.05	7.36	6.90	7.37	7.91	8.11
10/23 13:20	569	220	781	1,018	1,098	1,229	1,115	186	138	22	853	789	603	747	1,157	6.78	4.93	7.85	9.00	9.35	9.87	9.70	4.79	4.45	2.74	7.97	7.40	6.85	7.17	8.31
10/23 13:30	831	278	834	1,085	1,302	1,375	1,308	484	202	63	663	653	759	937	1,077	8.00	5.12	8.18	9.34	10.22	10.49	10.39	6.16	4.85	3.58	7.30	7.00	7.39	8.06	8.30
10/23 13:40	827	342	777	1,107	1,258	1,280	1,103	330	245	69	741	753	857	789	1,207	7.97	5.74	7.56	9.00	10.04	9.88	9.60	5.78	5.04	3.52	7.58	7.57	7.68	7.34	8.60
10/23 13:50	852	417	838	1,120	1,061	1,059	879	1,015	196	83	795	733	912	914	1,547	7.93	6.11	7.90	9.06	9.02	8.94	8.88	8.11	4.64	3.77	7.79	7.39	7.85	7.68	9.34
10/23 14:00	392	160	471	690	587	830	809	786	222	135	1,160	886	922	931	1,282	5.90	4.31	6.54	7.86	7.37	7.91	8.49	7.31	4.95	4.17	8.95	7.67	7.83	8.02	8.67
10/23 14:10	577	170	532	730	863	776	763	470	203	84	829	589	569	554	805	6.83	4.44	6.88	7.84	8.11	7.85	8.00	6.25	4.58	3.44	8.01	6.81	6.60	6.37	7.43
10/23 14:20	551	208	527	644	686	639	576	416	226	63	813	730	660	781	1,054	6.70	4.79	6.65	7.46	7.56	7.34	7.52	6.22	5.06	3.43	7.86	7.61	6.93	7.43	8.10
10/23 14:30	388	213	484	614	594	503	369	776	238	41	671	628	637	730	1,197	6.13	5.05	6.43	7.50	7.15	6.74	6.53	7.29	5.18	3.25	7.36	7.20	6.88	7.21	8.33
10/23 14:40	415	319	535	688	792	765	602	758	311	92	760	824	950	710	1,349	6.29	5.56	6.46	7.95	8.09	7.90	7.52	7.36	5.78	3.76	7.68	7.96	8.10	6.77	8.90
10/23 14:50	606	266	548	727	837	781	630	742	267	68	1,332	1,222	1,079	1,257	1,479	7.07	4.97	6.71	7.88	8.19	7.59	7.30	7.26	5.07	3.61	9.56	8.78	8.32	8.90	9.11
10/23 15:00	614	234	570	661	857	753	776	596	176	120	1,464	1,169	1,122	1,331	1,361	7.02	4.93	6.71	7.47	8.14	7.61	7.70	6.74	4.87	4.06	9.94	8.54	8.34	9.19	8.76
10/23 15:10	592	205	555	668	830	852	773	543	176	134	1,398	1,132	1,234	1,516	1,556	6.81	4.62	7.12	7.59	7.93	7.90	7.85	6.53	4.45	4.06	9.49	8.38	8.61	9.79	9.23
10/23 15:20	492	153	435	625	819	848	791	599	187	69	1,202	1,018	983	1,272	1,285	6.45	4.17	6.24	7.38	8.02	7.91	7.99	6.81	4.79	3.42	9.21	8.05	7.95	9.04	8.54
10/23 15:30	523	149	410	655	728	785	746	459	204	72	1,163	1,038	993	1,046	1,298	6.58	4.16	5.93	7.46	7.58	7.67	7.64	6.16	4.99	3.62	8.90	8.56	8.09	8.43	8.68
10/23 15:40	636	115	757	1,034	895	871	970	679	127	40	1,016	891	1,015	1,205	1,641	7.00	3.75	7.58	8.94	8.56	7.82	8.62	7.05	4.36	3.25	8.67	7.85	8.05	8.86	9.57
10/23 15:50	602	158	568	813	1,064	1,058	1,141	453	186	123	1,353	1,213	1,205	1,632	1,594	6.78	4.09	6.65	7.87	9.29	8.45	9.31	6.17	4.69	3.93	9.69	8.71	8.46	9.90	9.54
10/23 16:00	565	244	606	905	1,151	1,283	1,143	997	359	145	1,477	1,237	1,301	1,665	1,910	6.49	5.00	7.01	8.18	9.39	9.30	9.04	7.98	5.54	4.43	9.90	9.05	8.81	10.15	10.34
10/23 16:10	565	282	583	921	1,222	1,348	1,162	629	240	268	1,665	1,394	1,395	1,803	1,829	6.72	5.21	6.80	8.51	9.51	9.70	9.37	6.87	4.96	5.03	10.52	9.01	8.98	10.24	10.21
10/23 16:20	619	549	640	1,205	1,511	1,589	1,481	445	260	203	1,333	871	871	1,446	1,639	6.87	6.36	6.96	9.19	10.20	10.67	10.74	5.82	4.94	4.65	9.70	7.73	7.64	9.47	9.65
10/23 16:30	596	347	355	1,016	1,326	1,409	1,370	423	213	185	1,262	959	951	1,425	1,553	6.93	5.50	5.59	8.85	9.69	9.74	10.52	5.86	4.67	4.45	9.47	7.91	7.98	9.28	9.42
10/23 16:40	657	331	803	1,164	1,520	1,606	1,469	578	427	310	1,097	1,235	1,182	1,116	1,308	7.17	5.43	8.06	9.61	10.08	10.79	11.02	6.68	5.59	5.42	8.77	8.52	8.59	8.42	8.57
10/23 16:50	751	603	926	1,349	1,687	1,750	1,547	178	275	291	1,054	947	759	1,340	1,567	7.32	7.17	8.45	10.12	10.91	11.08	11.28	4.64	5.38	5.66	8.61	7.84	7.15	9.00	9.40
10/23 17:00	1,007	673	1,179	1,669	1,925	1,891	1,722	505	259	297	1,306	983	1,209	1,668	1,706	8.43	6.61	9.09	11.36	11.60	11.98	11.93	6.33	5.35	5.29	9.54	8.24	8.83	10.01	9.80
10/23 17:10	1,476	784	823	1,487	1,774	1,729	1,580	388	338	547	1,833	1,519	1,439	1,853	2,017	10.17	7.37	7.40	10.42	10.97	11.34	10.95	5.99	5.69	6.64	10.89	9.38	9.32	10.49	10.84
10/23 17:20	1,125	620	802	1,322	1,630	1,676	1,452	590	626	972	1,849	1,418	1,414	1,747	1,741	8.84	6.89	7.87	9.95	10.66	11.15	10.62	6.64	6.84	7.96	10.98	9.03	9.06	10.22	9.92
10/23 17:30	934	700	777	1,142	1,473	1,371	1,274	516	549	723	1,420	1,140	1,180	1,635	1,905	8.10	7.24													

10/23 20:10	178	50	179	214	217	252	192	91	233	239	268	263	204	257	250	11.39	9.37	11.47	11.98	11.69	12.92	11.81	9.76	9.52	10.44	12.70	10.34	10.20	11.25	10.69
10/23 20:20	-9	-9	-9	-21	-18	-18	-17	-10	-9	-9	-17	-17	-14	-13	-15	11.47	8.52	10.56	10.92	13.01	12.37	12.47	11.57	11.25	11.19	13.31	11.37	11.11	11.85	10.63
10/23 20:30	780	385	518	957	938	896	901	815	745	838	856	736	835	791	875	10.86	7.61	8.70	11.42	12.99	13.19	12.46	11.21	11.38	11.96	13.25	10.43	10.75	10.81	11.24
10/23 20:40	1,604	963	1,179	1,852	1,998	2,020	1,999	1,408	1,767	1,647	1,904	1,777	1,549	1,732	1,515	10.88	8.57	8.94	12.22	13.47	13.11	12.86	9.06	10.61	9.69	11.44	9.88	9.43	10.11	9.29
10/23 20:50	1,551	1,022	971	1,797	1,948	1,929	1,946	1,837	1,860	1,811	1,990	1,916	1,644	1,710	1,682	10.72	8.86	8.02	11.52	12.44	12.17	12.56	10.56	10.95	10.30	11.81	10.55	9.56	9.98	9.92
10/23 21:00	1,424	921	836	1,738	1,938	2,004	1,859	1,551	1,836	1,816	1,970	1,553	1,511	1,578	1,423	9.93	8.31	7.51	11.60	11.92	12.84	12.02	9.47	11.01	10.37	11.71	9.64	9.34	9.86	8.90
10/23 21:10	1,271	711	692	1,747	1,956	1,918	1,788	1,439	1,381	1,514	1,923	1,632	1,572	1,672	1,644	9.27	7.26	6.61	11.28	12.00	12.60	11.68	9.31	9.17	9.51	11.32	9.78	9.78	10.14	9.74
10/23 21:20	1,439	772	704	1,701	1,685	1,757	1,833	1,030	1,328	1,666	1,940	1,564	1,741	1,926	1,962	9.82	7.83	6.85	11.03	11.65	11.38	12.17	7.97	9.26	10.00	11.56	9.64	10.17	10.91	11.03
10/23 21:30	1,306	694	626	1,607	1,742	1,869	1,403	1,372	1,275	1,631	1,959	1,889	1,878	1,870	1,810	9.56	6.99	6.42	10.81	11.30	11.99	10.77	8.83	8.86	9.85	11.83	10.66	10.67	11.11	10.36
10/23 21:40	1,265	722	526	1,416	1,595	1,691	1,547	1,338	1,478	1,664	1,970	1,661	1,923	2,000	2,006	9.49	7.46	6.00	10.15	11.15	11.13	11.41	9.05	9.70	9.95	11.76	9.89	10.70	11.36	11.35
10/23 21:50	1,428	828	540	1,449	1,846	1,780	1,620	1,436	1,291	1,485	1,963	1,708	1,704	1,689	1,943	10.13	7.69	5.94	10.13	12.12	11.39	11.58	9.11	9.07	9.54	11.62	10.05	9.78	10.02	10.93
10/23 22:00	995	467	450	1,123	1,455	1,684	1,557	1,322	1,405	1,641	1,920	1,726	654	1,674	1,767	8.63	6.25	6.18	9.41	10.47	11.00	11.22	8.94	9.45	10.02	11.39	10.33	9.73	9.96	10.10
10/23 22:10	1,449	661	683	1,588	1,693	1,448	1,256	1,925	1,290	1,542	1,998	1,730	1,556	1,514	1,684	9.85	7.03	6.77	10.72	11.08	10.10	9.52	10.68	9.07	9.58	11.96	10.00	9.85	9.41	9.65
10/23 22:20	1,157	434	445	1,414	1,559	1,678	1,621	1,879	1,544	1,601	1,904	1,776	1,635	1,962	1,784	8.86	5.97	5.57	9.94	10.51	11.11	10.93	10.48	9.89	9.82	11.80	10.13	9.55	11.10	10.09
10/23 22:30	769	295	232	894	1,032	1,362	1,124	1,724	1,900	1,941	1,985	1,712	1,688	1,945	1,813	7.69	5.30	4.30	8.10	8.90	9.70	9.76	9.66	11.09	10.96	12.19	9.82	9.73	10.86	10.14
10/23 22:40	389	148	118	655	1,022	1,072	1,072	1,465	1,637	1,544	1,920	1,755	1,684	1,882	1,862	5.98	4.19	3.62	7.02	8.66	8.58	9.19	9.05	9.95	9.55	11.54	9.75	9.77	10.53	10.38
10/23 22:50	714	56	405	901	1,003	976	1,101	1,242	1,730	1,708	1,992	1,807	1,637	1,944	1,925	7.52	4.38	5.55	8.44	8.64	8.30	9.21	8.68	10.16	10.21	11.73	10.00	9.71	11.02	10.36
10/23 23:00	799	291	599	1,148	1,321	1,436	1,317	1,121	1,550	1,468	2,000	1,754	1,846	1,952	1,877	7.95	5.16	6.22	9.52	9.98	10.22	9.93	8.36	9.70	9.14	11.80	10.06	10.29	11.06	10.39
10/23 23:10	845	276	623	1,083	1,204	1,253	1,395	1,046	1,316	1,444	1,843	1,580	1,571	1,699	1,724	7.63	4.78	6.24	9.36	9.43	9.26	10.56	8.09	9.46	9.19	11.31	9.41	9.41	10.29	9.95
10/23 23:20	1,034	355	386	1,194	1,333	1,320	1,109	1,373	1,517	1,547	1,839	1,637	1,657	1,730	1,837	8.52	5.68	5.25	9.44	10.17	9.96	9.43	9.06	9.73	9.61	10.90	9.56	9.78	10.42	10.08
10/23 23:30	1,064	343	263	1,173	1,376	1,561	1,324	1,219	1,492	1,340	1,742	1,859	1,693	1,580	1,630	8.90	5.36	4.30	9.34	10.53	10.52	10.74	8.63	10.11	9.12	10.66	10.40	9.99	10.03	9.53
10/23 23:40	1,146	430	381	1,409	1,685	1,629	1,400	1,203	1,666	1,639	1,940	1,639	1,738	1,725	1,671	9.05	6.07	5.29	10.34	11.13	10.83	10.15	8.63	10.25	10.02	11.25	9.65	10.11	10.16	9.66
10/23 23:50	766	303	223	1,224	1,581	1,562	1,419	874	1,422	1,340	1,917	1,456	1,643	1,551	1,346	7.38	4.93	4.13	9.64	10.54	10.50	10.93	7.84	9.41	8.99	11.13	9.16	9.69	9.72	8.84
10/24 0:00	623	180	197	1,094	1,456	1,498	1,455	538	1,194	1,238	1,754	1,506	1,427	1,495	1,280	6.92	4.41	3.90	9.16	10.14	10.30	11.02	6.37	8.96	8.93	10.57	9.48	9.32	9.65	8.72
10/25 0:10	645	629	484	352	376	277	207	966	884	893	968	158	-13	356	207	7.39	6.74	6.33	5.88	5.66	5.39	4.43	7.66	7.35	7.48	7.57	4.35	2.78	5.30	4.66
10/25 0:20	598	760	765	602	569	430	409	821	607	664	806	243	-22	158	142	7.15	7.24	7.08	7.15	6.72	5.93	5.88	7.33	6.86	6.89	7.06	5.30	2.23	3.98	3.80
10/25 0:30	684	486	332	352	378	198	202	773	506	572	678	267	45	95	185	7.41	6.29	5.41	5.80	6.19	4.40	4.41	7.11	6.46	6.66	6.85	5.61	3.27	3.61	4.43
10/25 0:40	604	440	243	356	371	176	130	955	684	651	635	144	-3	142	237	6.79	6.06	4.87	5.76	5.73	4.29	3.97	7.86	6.88	6.89	6.60	4.23	2.22	3.88	4.77
10/25 0:50	936	796	409	732	432	340	359	668	396	472	631	96	-26	146	125	8.06	7.52	6.19	7.40	5.97	5.51	6.24	6.93	5.77	6.27	6.62	6.93	1.90	4.08	4.01
10/25 1:00	640	809	621	629	551	461	469	602	491	505	536	104	-23	67	141	6.93	7.56	6.71	7.14	6.50	6.20	6.17	6.64	6.19	6.39	6.33	3.90	2.39	3.43	4.07
10/25 1:10	956	776	627	647	622	471	386	697	551	474	507	89	-7	124	120	7.97	7.27	6.78	7.02	6.70	6.14	5.85	6.82	6.69	6.28	6.19	3.38	2.48	4.08	4.01
10/25 1:20	769	707	496	557	470	665	725	400	298	265	331	-20	-28	155	140	7.22	7.24	6.08	6.92	6.18	6.87	7.42	5.85	5.26	5.23	5.33	2.52	2.88	4.05	4.10
10/25 1:30	779	620	505	519	487	696	582	591	665	639	458	0	-16	315	193	7.73	7.13	6.44	6.91	6.19	7.63	7.03	6.65	7.16	6.98	5.86	2.91	2.58	5.22	4.35
10/25 1:40	563	570	481	393	465	750	634	518	645	637	608	18	2	387	251	6.84	6.58	6.24	6.05	6.25	7.65	7.24	6.12	6.83	6.51	6.55	2.92	2.72	5.57	4.87
10/25 1:50	535	515	612	596	497	768	679	449	321	140	151	-26	-23	253	284	6.75	6.27	6.88	7.14	6.20	7.92	7.53	6.18	5.48	4.50	3.97	2.42	2.85	4.88	5.13
10/25 2:00	630	658	469	571	617	660	768	337	457	156	133	-22	62	363	391	6.97	6.76	5.99	6.98	6.80	7.00	7.60	5.66	6.17	4.04	3.84	3.06	3.50	5.49	5.70
10/25 2:10	626	573	670	755	1,035	720	684	458	400	188	157	67	277	548	550	6.65	6.93	6.75	7.34	8.53	7.31	7.63	6.20	6.00	4.25	3.81	3.87	5.43	6.43	6.43
10/25 2:20	58	65	68	71	139	71	81	29	34	-22	-1	8	6	49	55	6.90	6.93	7.11	6.91	8.38	8.33	8.79	5.49	5.50	4.95	5.44	5.31	5.52	6.30	6.88
10/25 2:30	-25	-10	-25	-24	-10	-24	-24	-8	-9	-20	-11	-23	-23	-24	-9	7.52	7.28	7.23	7.44	8.83	9.51	9.37	6.06	5.66	6.17	6.49	5.76	5.54	7.01	7.74
10/25 2:40	545	467	575	653	825	685	722	403	338	120	164	152	316	548	476	7.69	7.56	7.82	8.23	9.26	9.18	9.42	6.92	6.92	5.28	5.47	5.62	6.68	8.03	7.79
10/25 2:50	969	746	878	1,087	978	1,184	1,281	732	611	165	210	134	497	905	827	7.97	7.43	7.68	8.96	8.38	8.84	9.29	7.14	7.33	3.93	4.51	4.08	6.44	7.72	7.45
10/25 3:00	974	873	961	1,156	1,050	1,272	1,261	514	540	77	212	315	592	826	734	7.98	8.01	8.11	9.30	8.80	9.29	9.13	6.39	7.08	3.10	4.53	5.34	6.78	7.32	7.18
10/25 3:10	649	563	642	657	834	1,038	1,119	500	573	43	277	699	623	659	604	7.29	6.92	6.88	7.19	7.74	8.49	9.								

10/25 5:50	389	289	349	66	431	367	414	224	280	86	395	461	336	393	581	5.88	5.37	5.74	3.13	6.08	5.91	6.47	4.96	5.64	3.56	6.08	6.41	5.64	5.43	6.64
10/25 6:00	332	233	294	76	406	248	305	233	259	41	191	214	193	263	383	5.68	5.12	5.50	3.47	5.91	4.76	5.49	4.94	5.47	3.16	4.70	4.95	4.75	4.83	5.63
10/25 6:10	237	120	162	51	267	147	268	161	185	-2	91	145	115	158	308	4.93	4.15	4.37	3.06	5.27	4.50	5.50	4.40	4.69	2.65	3.89	4.41	4.34	4.23	5.38
10/25 6:20	311	205	226	125	493	337	311	197	178	85	171	155	275	327	514	5.63	4.81	4.82	4.16	6.43	5.60	5.60	4.66	4.68	3.93	3.80	4.43	5.50	5.38	6.38
10/25 6:30	516	410	428	180	367	242	375	206	276	243	385	236	362	370	582	6.70	6.50	6.07	4.35	5.99	4.97	6.09	4.75	5.73	5.22	5.98	5.18	5.80	5.50	6.58
10/25 6:40	348	226	242	142	245	201	190	219	190	49	158	203	167	203	310	5.65	5.12	5.04	4.06	5.08	4.68	4.73	4.97	4.99	3.30	4.46	4.91	4.60	4.56	5.40
10/25 6:50	238	93	125	21	201	195	201	177	171	128	182	128	102	164	237	5.06	3.78	4.05	2.81	4.74	4.87	5.03	4.57	4.53	4.39	4.62	4.19	4.09	4.14	5.02
10/25 7:00	174	84	119	31	268	211	230	105	113	80	55	82	142	156	237	4.52	3.76	3.95	2.89	5.50	4.88	5.02	3.94	4.21	3.96	3.57	4.06	4.46	4.07	5.02
10/25 7:10	94	-11	4	58	118	107	89	37	40	8	154	129	85	146	172	3.87	2.46	2.76	3.74	4.00	4.05	3.81	3.30	3.46	2.81	4.54	4.33	3.88	4.28	4.59
10/25 7:20	17	-28	-13	15	69	26	13	97	67	87	172	143	124	148	169	2.69	2.28	2.40	2.93	3.35	2.96	2.53	4.09	3.77	3.89	4.61	4.48	4.34	4.14	4.45
10/25 7:30	-23	-26	-16	-12	8	-24	-26	89	16	30	97	126	102	69	46	2.12	1.87	2.12	2.42	2.41	2.41	2.14	4.00	2.91	3.32	4.12	4.44	4.11	3.26	3.25
10/25 7:40	-26	-22	-28	-26	-13	-28	-25	42	-11	-9	2	33	13	-8	-3	2.23	1.53	2.12	2.41	1.68	2.28	1.73	3.46	2.20	2.96	3.08	3.29	3.14	2.53	2.76
10/25 7:50	-23	-10	-25	-28	-11	-25	-26	-10	-11	-23	-20	-20	-27	-22	-13	1.37	1.10	0.89	1.63	1.52	1.81	1.62	2.13	1.98	2.36	2.21	2.25	1.90	1.86	1.96
10/25 8:00	-23	-8	-24	-25	-9	-23	-23	-10	-11	-22	-25	-27	-26	-25	-11	1.15	0.83	0.80	1.61	1.31	1.51	1.90	2.36	2.80	2.70	2.06	2.27	2.10	1.66	2.02
10/25 8:10	-23	-9	-25	-23	-10	-22	-23	-8	-12	-19	-23	-26	-23	-24	-8	1.16	1.27	0.96	0.82	0.91	1.40	1.32	1.50	2.44	2.10	1.88	1.81	1.62	1.41	1.55
10/25 8:20	-24	-8	-24	-23	-9	-22	-24	-9	-9	-18	-26	-23	-24	-24	-8	1.45	1.70	1.46	0.82	1.17	1.18	1.29	1.85	2.18	2.33	2.30	1.99	2.09	1.41	1.59
10/25 8:30	-18	-8	-24	-23	-9	-23	-24	-9	-9	-19	-24	-24	-25	-24	-10	0.95	1.02	0.92	0.84	1.25	0.90	1.42	1.61	1.86	1.70	1.32	1.34	1.39	1.25	1.06
10/25 8:40	-9	-9	-24	-23	-9	-23	-24	-10	-9	-19	-23	-24	-24	-24	-9	0.50	0.60	0.55	0.79	0.77	0.78	1.30	0.80	1.54	1.49	0.91	1.00	0.55	0.51	0.80
10/25 8:50	-8	-9	-23	-23	-9	-24	-24	-10	-9	-19	-7	-24	-24	-23	-9	1.77	0.93	0.71	0.98	1.36	1.52	1.64	1.25	1.82	1.54	1.88	1.45	1.45	1.18	0.64
10/25 9:00	-8	-10	-24	-23	-9	-24	-24	-10	-9	-18	-8	-23	-24	-23	-10	1.34	1.39	1.13	1.29	1.75	1.76	1.85	1.06	1.85	1.43	1.50	1.57	1.65	1.19	1.58
10/25 9:10	-6	-10	-24	-9	-9	-22	-24	-10	-8	-17	-8	-24	-23	-23	-9	1.63	1.05	1.41	1.56	1.75	1.58	1.96	1.45	2.03	1.72	1.50	2.12	1.81	1.56	1.61
10/25 9:20	-7	-9	-24	-5	-8	-24	-23	-9	-6	-16	-8	-23	-24	-23	-10	1.42	1.18	1.08	0.68	2.04	1.50	1.54	1.56	2.15	1.24	1.86	2.00	1.17	1.28	1.37
10/25 9:30	-6	-8	-22	-5	-8	-23	-24	-6	-6	-16	-8	-22	-23	-19	-10	1.91	1.87	0.89	0.87	1.13	1.48	1.75	1.40	2.36	2.08	1.26	1.82	1.27	1.05	2.20
10/25 9:40	-6	-6	-23	-5	-6	-23	-26	-6	-6	-17	-8	-23	-24	-9	-7	1.71	1.79	1.92	1.91	1.27	1.83	1.90	1.20	1.71	1.72	1.62	1.51	1.66	1.13	1.75
10/25 9:50	-6	-6	-24	-5	-5	-23	-26	-6	-6	-17	-8	-23	-23	-9	-6	1.21	1.63	1.65	1.91	1.55	1.73	1.88	1.93	1.79	1.60	1.52	1.62	1.68	1.41	2.24
10/25 10:00	-6	-6	-24	-6	-6	-21	-27	-6	-6	-17	-8	-23	-22	-10	-7	1.46	1.60	1.94	1.89	2.05	2.25	1.47	0.93	1.90	1.92	1.47	1.85	1.56	1.17	1.61
10/25 10:10	-7	-5	-23	-4	-5	-20	-23	-7	-6	-16	-8	-23	-23	-9	-6	1.90	1.90	1.95	2.10	1.50	2.07	1.69	1.56	1.82	1.57	1.59	2.16	1.84	1.56	1.33
10/25 10:20	-7	-5	-24	-5	-6	-19	-23	-7	-6	-16	-8	-23	-23	-9	-7	2.24	2.47	1.98	2.18	2.80	1.99	1.68	2.30	1.33	1.67	1.58	1.67	1.21	0.95	1.11
10/25 10:30	-6	-7	-24	-5	-7	1	-20	-7	-7	-15	-9	-22	-24	-8	-7	1.92	1.99	1.92	1.82	2.58	2.23	2.37	1.17	1.78	1.70	2.42	2.50	2.30	2.10	2.18
10/25 10:40	-6	-5	-24	-6	5	-7	-15	-6	-6	-17	-9	-20	-24	-6	-7	1.78	2.24	1.88	2.19	2.17	2.60	2.45	1.57	2.25	2.05	2.25	2.44	2.68	2.28	2.13
10/25 10:50	-4	-9	-24	-6	-8	11	-13	-6	-6	-16	-8	-21	-23	-6	-6	1.74	1.47	1.54	1.56	2.58	2.64	2.53	2.71	2.67	2.45	2.81	2.21	1.83	1.99	2.32
10/25 11:00	-9	-7	-20	-6	-5	-4	-14	-8	-6	-16	-3	-20	-23	-6	-6	2.16	1.73	2.76	2.23	2.39	2.21	2.36	2.99	2.80	2.62	2.50	2.58	2.25	2.18	2.62
10/25 11:10	-2	-5	-11	-5	-5	-9	-26	-7	-6	-16	-11	-20	-23	-6	-6	2.88	2.12	2.68	2.86	2.17	2.40	2.03	2.06	2.37	2.67	1.98	2.92	1.85	2.12	2.22
10/25 11:20	24	-5	-18	-6	-5	-9	-26	-6	-6	-16	-11	-22	-23	-5	-7	2.83	2.81	2.40	2.13	2.04	2.25	2.02	1.90	2.46	2.24	2.75	2.90	2.19	2.19	2.15
10/25 11:30	-8	-5	-25	-6	-5	-10	-24	-1	-6	-15	-6	-1	-24	-6	-6	2.31	2.17	2.34	2.25	2.00	2.49	2.07	3.46	2.59	2.69	2.92	3.35	2.90	2.91	2.65
10/25 11:40	-6	-6	-23	-8	-5	-6	-23	14	-8	-16	-6	-10	-23	-9	-5	2.02	1.70	1.74	1.53	1.94	2.04	1.69	2.99	3.04	2.85	2.73	2.57	2.45	2.56	3.17
10/25 11:50	-6	-6	-7	-6	-5	-7	-23	-1	-7	-16	-11	-27	-23	-6	-2	1.57	2.39	2.19	2.07	2.34	2.00	2.42	2.54	2.73	2.18	2.45	2.12	2.23	2.02	2.78
10/25 12:00	-6	-7	6	-6	-5	11	-25	-9	-7	-16	-10	-23	-21	-9	-8	2.30	1.93	2.42	2.31	2.69	2.52	2.54	2.61	2.39	2.24	2.44	2.27	1.71	1.77	2.22
10/25 12:10	-7	0	2	-6	-5	-9	-26	-7	-6	-16	-11	-20	-7	-8	-7	2.54	2.75	2.37	2.38	2.39	2.22	2.29	2.47	2.40	2.15	2.20	2.45	2.75	2.08	2.48
10/25 12:20	-8	9	-10	-9	-5	-8	-24	-7	-6	-17	-8	-20	-6	-6	-9	1.74	2.62	1.98	2.18	2.22	2.13	2.04	1.42	2.23	1.66	1.68	2.45	2.78	1.92	2.15
10/25 12:30	-6	-4	-8	-8	-5	-6	-24	-8	-6	-16	-8	-20	-5	-5	-8	1.87	2.44	2.09	2.15	1.74	1.42	1.74	1.76	2.25	2.19	1.67	2.36	2.55	1.88	2.18
10/25 12:40	-2	-6	-4	-6	-5	-6	-24	-7	-6	-16	-8	-21	-6	-5	-9	2.51	2.60	2.17	2.33	2.03	2.13	1.63	2.40	2.59	2.50	2.11	2.24	2.18	2.25	2.53
10/25 12:50	-1	20	12	-3	-6	-6	-23	-4	-6	-15	-11	-20	-6	-8	-8	2.45	2.81	2.70	2.78	2.62	2.37	2.59	2.64	2.52	2.17	2.14	2.78	2.86	2.39	2.32
10/25 13:00	11	21	31	22	5	0	-26	-5	-7	-14	21	5	-6	-10	-10	2.82	2.82	2.86	2.91	2.72	2.59	2.80	2.47	3.02	3.21	3.09	2.83	3.00	2.26	2.56
10/25 13:10	8	36	30	24	7	22	1	-2	-9	-16	20	7	15	-1	20	2.44	2.89	2.93	2.84	2.28	2.63	2.60	2.45	2.84	2.59	3.03	2.94	3.09	2.55	3.07
10/25 13:20	26	21	16	8	-8	6	-23	3	-1	-11	34	8	-1	20	12	2.84	2.84	2.62	2.78	2.20	2.42	2.34	2.57	2.68	2.73	3.45	2.92	2.55	2.79	2.89
10/25 13:30	45	47	76	87	64	84	39	102	76	65	72	69	64	84	89	3.17	3.21	3.52	3.77	3.58	3.61	3.26	3.86	3.99	3.75	3.85	3.80	3.67	3.50	3.98
10/25 13:40	56	83	121	105	78	63	50	157	195	128	178	85	140	151	126	3.32	3.56	4.00	4.14	3.67	3.40	3.48	4.47	5.08	4.36	4.61	3.84	4.48	4.29	4.30
10/25 13:50	86	90	117	121																										

10/25 15:40	437	458	485	462	336	303	260	519	596	678	804	652	534	582	606	6.61	6.60	6.41	6.86	6.01	5.83	5.79	6.35	7.49	7.22	7.28	7.02	6.80	7.00	6.92
10/25 15:50	505	520	554	534	401	307	244	726	861	864	912	605	483	524	546	7.00	7.02	6.72	7.21	6.45	6.04	5.82	7.12	8.30	7.84	7.70	6.89	6.57	6.70	6.93
10/25 16:00	456	432	487	508	394	346	298	670	776	829	932	591	438	515	563	6.67	6.38	6.31	6.97	6.28	6.08	6.02	6.87	8.04	7.66	7.82	6.85	6.37	6.63	6.96
10/25 16:10	377	334	401	410	392	358	313	478	618	642	803	469	388	656	800	6.33	5.98	5.99	6.57	6.30	6.17	6.14	6.21	7.47	6.95	7.51	6.50	5.94	7.33	7.68
10/25 16:20	278	269	312	329	320	285	252	376	407	481	642	448	367	476	539	5.56	5.45	5.48	6.08	5.95	5.44	5.25	5.87	6.60	6.43	6.94	6.47	6.12	6.55	6.82
10/25 16:30	333	308	333	403	350	293	267	383	463	519	650	444	326	444	510	5.99	5.75	5.61	6.47	6.43	5.59	5.56	5.84	6.91	6.62	6.98	6.40	5.92	6.26	6.50
10/25 16:40	491	458	500	532	464	405	365	348	399	431	593	378	263	454	573	7.09	6.66	6.60	7.28	7.02	6.34	6.39	5.80	6.57	6.13	6.84	6.32	5.58	6.44	6.90
10/25 16:50	517	471	505	537	489	429	353	359	463	499	568	372	262	451	633	7.36	6.75	6.52	7.27	7.01	6.60	6.40	6.13	6.73	6.50	6.62	6.07	5.62	6.55	7.03
10/25 17:00	693	669	734	757	708	625	514	608	653	648	872	716	422	646	956	7.79	7.85	7.59	8.23	8.20	7.79	7.41	6.84	7.73	7.11	7.35	7.28	6.16	7.18	8.14
10/25 17:10	638	610	743	740	708	609	525	831	883	920	1,144	882	552	862	1,148	7.02	7.40	7.64	8.06	7.92	7.63	7.44	7.36	8.34	7.91	8.03	7.61	6.68	7.91	8.62
10/25 17:20	583	534	615	678	638	551	449	707	663	641	843	584	356	608	853	6.93	6.69	7.13	7.72	7.85	7.47	7.21	7.06	7.55	6.95	7.40	6.81	5.87	6.96	7.83
10/25 17:30	647	585	626	697	664	639	510	553	597	635	862	641	355	537	786	7.63	7.21	6.98	7.79	7.93	7.74	7.37	6.45	7.35	6.95	7.36	7.11	5.92	6.74	7.63
10/25 17:40	614	469	493	438	483	500	442	359	313	417	574	475	393	519	636	7.53	6.83	6.22	6.63	6.92	6.69	6.99	5.90	5.88	6.05	6.40	6.24	6.15	6.69	7.08
10/25 17:50	606	424	521	507	479	502	413	344	297	327	513	404	371	479	652	7.15	6.58	6.45	7.18	6.68	6.83	6.87	5.94	5.93	5.77	6.47	6.13	6.07	6.47	7.21
10/25 18:00	581	435	512	537	510	492	415	291	306	379	535	391	355	443	664	7.01	6.81	6.70	7.25	6.91	6.88	6.88	5.51	5.81	5.99	6.47	6.26	5.93	6.18	7.21
10/25 18:10	675	535	644	727	630	570	483	344	381	530	732	580	503	613	813	7.57	7.25	7.37	8.22	7.47	7.30	7.18	5.68	6.00	6.52	7.16	6.78	6.52	6.83	7.59
10/25 18:20	653	575	656	709	606	538	468	275	386	459	762	517	427	526	703	7.35	7.52	7.45	8.05	7.49	7.24	6.95	5.29	6.04	6.20	7.16	6.44	6.14	6.58	7.26
10/25 18:30	705	688	747	778	682	634	550	388	589	651	840	616	519	649	894	7.56	7.82	7.46	8.30	7.74	7.67	7.23	5.96	6.80	6.88	7.55	6.98	6.57	7.06	7.97
10/25 18:40	900	891	983	1,002	862	802	707	558	714	655	872	682	634	813	1,117	8.43	8.61	8.03	8.95	8.18	8.14	7.46	6.48	7.18	6.86	7.48	6.95	6.90	7.54	8.37
10/25 18:50	915	898	927	973	844	791	674	362	545	468	719	606	611	680	871	8.44	8.14	7.77	8.52	7.80	7.71	7.80	5.71	6.92	6.26	7.04	6.82	6.87	7.05	7.74
10/25 19:00	751	779	777	782	711	725	658	367	583	605	822	645	551	621	747	7.57	7.63	7.33	7.63	7.88	7.47	7.94	5.82	7.22	6.85	7.48	7.09	6.68	6.87	7.51
10/25 19:10	689	692	755	798	675	703	683	508	693	644	971	775	653	702	823	7.51	7.53	7.61	7.86	7.83	7.70	8.01	6.41	7.63	6.93	7.81	7.40	7.03	7.22	7.72
10/25 19:20	732	712	832	929	801	762	710	545	608	613	973	771	641	715	845	7.56	7.52	7.81	8.25	7.89	7.75	7.90	6.50	7.13	6.75	7.74	7.52	6.83	7.23	7.68
10/25 19:30	637	651	637	838	870	833	757	441	531	611	853	668	551	599	742	6.88	6.99	6.71	8.03	8.94	8.61	8.48	6.19	6.99	6.75	7.37	7.10	6.65	6.83	7.50
10/25 19:40	606	566	593	742	869	901	839	508	634	646	784	606	534	557	651	7.06	6.61	6.49	7.64	8.79	9.01	9.17	6.37	7.38	7.03	7.33	6.88	6.67	6.65	7.09
10/25 19:50	671	731	784	861	842	869	812	731	920	926	1,201	908	702	668	797	7.55	7.58	7.39	8.21	8.33	8.64	8.91	7.17	8.13	7.88	8.30	7.84	7.20	7.14	7.61
10/25 20:00	976	1,051	1,087	1,140	971	913	908	849	974	1,085	1,388	962	742	823	984	8.11	8.42	8.16	8.98	8.90	8.10	8.28	7.38	8.28	8.39	8.64	7.80	7.10	7.60	7.87
10/25 20:10	271	244	262	305	248	238	238	219	237	258	300	164	118	177	228	8.54	8.33	8.55	9.09	8.86	8.55	8.61	7.25	7.91	7.75	8.05	6.80	6.27	6.99	7.63
10/25 20:20	-10	-9	-25	-9	-9	-23	-24	-10	-9	-20	-10	-24	-25	-8	-10	7.46	7.10	7.28	7.58	7.73	7.65	7.54	7.40	8.27	7.72	8.20	7.06	6.97	7.91	8.04
10/25 20:30	152	164	136	153	151	127	123	171	234	188	215	71	83	116	150	8.62	8.32	8.31	8.72	8.29	8.15	7.91	7.97	8.74	8.39	8.49	7.17	7.19	7.75	8.29
10/25 20:40	985	995	1,098	1,178	1,148	1,032	960	1,045	1,522	1,508	1,710	890	665	1,127	1,472	8.30	8.63	8.49	9.19	9.02	8.78	8.80	8.00	9.28	9.03	9.32	7.43	6.80	8.48	8.96
10/25 20:50	858	762	870	988	1,057	957	962	809	979	1,083	1,428	745	674	1,189	1,516	7.86	7.72	7.71	8.67	8.67	8.24	9.03	7.20	7.80	7.97	8.83	6.85	6.81	8.32	8.76
10/25 21:00	1,044	883	1,044	1,136	1,133	999	933	876	1,156	1,330	1,449	802	510	1,169	1,610	8.95	8.06	8.24	9.42	9.22	8.34	8.86	7.44	8.25	8.63	8.71	7.15	6.12	8.33	9.13
10/25 21:10	1,064	855	885	923	1,056	971	948	793	1,110	1,198	1,255	655	485	990	1,164	8.91	7.73	7.71	8.79	8.90	8.24	8.74	7.26	8.54	8.38	8.02	6.64	6.08	7.57	7.76
10/25 21:20	1,223	1,060	1,143	1,181	1,541	1,449	1,397	940	1,367	1,196	967	592	430	1,067	989	9.20	8.42	8.47	9.72	10.31	10.12	10.15	7.62	9.28	8.22	7.26	6.53	6.02	7.93	7.54
10/25 21:30	1,119	1,039	1,144	1,050	1,391	1,231	1,127	984	1,245	1,015	946	578	612	921	899	8.80	8.32	8.56	9.18	9.77	9.32	9.15	7.71	8.97	7.68	7.25	6.44	6.68	7.58	7.28
10/25 21:40	1,209	1,040	1,147	1,096	1,373	1,190	1,026	1,122	1,109	941	1,019	655	749	886	767	9.22	8.83	8.46	9.32	9.87	9.39	8.90	8.01	8.64	7.50	7.59	7.01	7.03	7.46	7.10
10/25 21:50	1,037	891	990	952	1,031	866	734	947	959	951	876	521	507	701	764	8.81	8.59	8.13	9.00	8.98	8.44	8.06	7.71	8.08	7.49	7.15	6.23	6.26	6.69	6.81
10/25 22:00	783	679	729	701	805	664	570	717	679	601	500	316	321	470	430	7.88	7.80	7.43	7.91	8.09	7.64	7.32	7.11	7.22	6.58	6.06	5.41	5.62	5.96	5.98
10/25 22:10	851	730	789	792	944	815	688	746	633	546	550	312	234	455	611	8.15	7.45	7.57	8.29	8.65	8.27	7.99	7.15	7.02	6.28	6.27	5.57	4.92	6.18	6.58
10/25 22:20	148	110	113	98	175	158	121	144	127	126	115	47	32	99	116	8.10	7.24	7.50	7.96	8.12	7.83	7.36	7.00	6.95	7.03	6.97	5.97	5.65	6.97	6.91
10/25 22:30	-9	-9	-25	-24	-10	-23	-24	-9	-9	-20	-9	-23	-25	-8	-10	8.18	7.78	8.12	8.14	7.83	7.79	7.53	7.22	7.17	7.37	8.07	7.30	6.92	7.66	7.07
10/25 22:40	980	814	794	748	886	808	755	1,145	1,028	1,062	1,127	988	798	917	1,027	9.03	8.22	7.99	8.56	8.67	8.40	8.03	8.71	8.42	8.33	8.61	8.41	7.69	8.32	8.28
10/25 22:50	1,165	915	1,109	1,084	1,315	1,148	1,203	1,391	1,281	1,445	1,441	1,114	870	1,197	1,423	9.06	7.90	8.40	9.02	9.25	8.90	8.73	8.74	8.67	8.77	8.58	8.17	7.38	8.38	8.42
10/25 23:00	1,294	1,242	1,389	1,313	1,473	1,305	1,205	1,631	1,299	1,485	1,4																			

10/26 1:20	1,438	1,277	1,381	1,182	1,401	1,247	1,111	1,804	1,950	1,883	1,703	1,515	903	968	840	11.04	9.92	10.47	10.15	10.56	9.79	8.91	11.30	11.31	11.63	12.13	10.73	9.12	8.94	9.38
10/26 1:30	1,297	1,101	1,182	971	1,249	1,174	1,110	1,209	1,367	1,210	1,191	889	415	660	488	10.54	9.11	9.85	9.16	10.33	9.61	8.96	9.46	9.59	9.85	10.70	9.24	7.47	7.58	8.26
10/26 1:40	1,003	1,013	979	912	1,158	1,009	894	839	973	855	813	704	246	474	493	9.33	9.14	9.05	9.64	10.00	9.12	8.43	9.16	8.88	9.34	10.06	9.16	6.70	7.29	8.87
10/26 1:50	884	875	878	807	914	817	729	592	620	598	638	514	208	366	371	9.35	8.44	8.73	9.63	9.11	8.41	8.04	8.77	8.63	8.66	9.91	8.42	6.82	6.86	7.81
10/26 2:00	850	714	623	521	765	675	649	727	571	549	645	459	242	221	248	9.27	7.96	7.69	8.68	8.62	8.08	8.02	9.62	8.43	9.09	10.23	8.76	6.96	6.90	7.30
10/26 2:10	702	738	679	573	699	550	493	525	720	480	653	474	330	355	216	8.69	8.61	8.39	8.86	8.79	8.04	7.95	8.75	9.54	8.72	10.24	8.99	8.18	8.45	7.17
10/26 2:20	541	496	556	416	644	503	490	379	474	342	350	262	241	238	175	8.35	7.86	8.49	8.45	8.77	8.31	8.00	8.32	8.58	8.27	8.66	7.73	7.38	7.89	6.81
10/26 2:30	438	356	516	475	588	415	369	398	280	244	199	205	247	172	99	8.05	7.48	8.58	8.85	8.91	8.18	7.82	8.82	7.52	7.61	7.34	7.34	7.56	7.53	5.91
10/26 2:40	428	368	382	335	460	393	449	540	474	327	306	261	228	202	163	8.36	7.99	8.03	8.41	8.61	8.40	8.47	9.93	9.14	8.67	8.77	8.08	7.70	7.86	7.00
10/26 2:50	461	376	362	383	457	374	493	392	378	274	309	222	181	172	177	8.67	8.23	8.32	8.75	8.75	8.41	8.98	8.86	8.64	8.20	8.79	7.98	7.05	7.47	7.59
10/26 3:00	412	423	364	372	423	324	287	336	374	263	280	254	244	200	130	8.80	8.80	8.33	9.07	8.85	8.09	7.47	8.57	8.59	8.11	8.42	8.25	7.99	8.21	6.81
10/26 3:10	485	389	424	355	405	258	219	397	321	296	261	263	175	161	100	9.19	8.64	9.03	8.97	8.98	7.93	7.39	9.30	8.33	8.60	8.71	8.44	7.21	7.80	6.59
10/26 3:20	388	314	409	339	329	293	249	298	291	273	240	243	198	171	159	8.77	8.08	8.86	9.07	8.41	8.08	7.55	8.50	8.20	8.79	8.46	8.12	7.56	8.16	7.36
10/26 3:30	348	308	331	337	314	190	196	341	320	275	288	286	155	140	170	8.63	8.28	8.53	9.22	8.54	7.39	7.42	8.93	8.53	8.79	9.12	8.82	7.06	7.60	7.71
10/26 3:40	412	359	442	330	359	267	245	334	260	265	286	276	118	61	145	9.14	8.65	9.42	9.27	9.00	8.31	8.14	9.00	7.97	8.70	9.44	8.83	6.69	6.53	7.49
10/26 3:50	396	347	387	344	366	272	236	330	298	290	-6	271	127	93	133	9.15	8.70	9.11	9.65	9.20	8.37	7.89	9.12	8.46	8.78	9.72	8.86	7.16	7.54	7.59
10/26 4:00	337	312	324	329	359	273	238	302	289	271	-7	292	157	77	128	8.92	8.57	8.89	9.70	9.30	8.68	8.08	8.77	8.34	8.61	9.20	8.88	7.57	7.40	7.72
10/26 4:10	327	333	336	325	352	282	252	257	354	358	-7	347	220	129	188	8.06	8.73	9.21	9.68	9.28	8.70	8.15	8.28	8.82	9.21	9.71	9.45	8.07	8.18	9.08
10/26 4:20	260	275	302	314	334	245	207	225	289	215	-7	332	151	61	-10	8.75	8.46	9.24	9.84	9.41	8.71	8.11	8.11	8.09	8.01	9.08	9.19	7.52	7.40	8.47
10/26 4:30	274	244	289	194	319	216	217	277	307	272	-7	289	167	93	-9	9.12	8.37	9.20	10.11	9.41	8.37	8.35	8.65	8.30	8.89	8.86	8.50	7.70	8.06	7.06
10/26 4:40	289	218	260	-26	309	218	201	292	444	2	-6	505	272	105	-9	9.44	8.42	9.17	9.79	9.48	8.73	8.35	8.89	9.03	10.05	10.13	9.83	8.85	8.36	7.52
10/26 4:50	399	356	427	-23	330	222	215	213	608	-19	-6	795	486	-1	-8	10.23	9.78	10.14	9.89	9.90	8.95	8.68	9.06	9.22	9.17	9.81	9.75	9.42	9.51	8.15
10/26 5:00	432	330	575	-23	600	344	368	-11	1,122	-18	-7	1,118	675	-8	-9	9.78	9.21	9.95	10.50	10.26	9.52	8.95	9.72	9.58	8.92	9.69	9.64	8.35	8.47	8.45
10/26 5:10	598	404	674	-22	887	795	779	-9	1,348	-18	-7	1,439	484	-7	-8	9.97	9.52	9.96	10.88	10.39	9.87	8.89	8.56	9.12	8.96	10.51	9.46	7.17	7.59	8.60
10/26 5:20	862	667	930	-22	1,117	1,025	1,081	-9	1,299	-15	-7	965	222	-7	-8	9.88	9.33	10.37	10.68	10.65	10.08	9.35	8.76	8.73	8.75	10.01	7.73	5.70	7.21	9.11
10/26 5:30	951	985	1,187	-23	1,316	1,341	1,407	-9	1,339	-15	-7	882	175	-7	-5	9.76	9.23	10.32	10.41	10.59	10.22	9.75	8.91	8.49	9.75	10.14	7.42	5.29	7.66	9.83
10/26 5:40	1,031	1,048	1,352	-23	1,335	1,352	1,416	-9	1,778	-15	-7	870	381	-7	-5	10.07	9.35	10.66	9.49	10.48	9.93	9.56	8.85	9.56	9.51	9.97	7.25	6.19	8.24	9.92
10/26 5:50	1,243	1,210	1,518	-23	1,548	1,462	1,509	-9	2,005	-15	-7	774	721	-7	-5	10.39	9.38	10.39	9.03	10.58	9.76	9.69	9.65	10.49	10.23	8.81	7.01	7.33	8.87	11.11
10/26 6:00	1,389	1,420	1,592	-22	1,623	1,447	1,409	-7	2,000	-14	-7	905	809	-8	-4	10.52	9.79	10.54	9.45	10.77	9.49	9.71	9.87	10.77	10.13	9.02	7.11	7.18	10.04	11.53
10/26 6:10	1,572	1,527	1,727	-23	1,683	1,574	1,463	-5	1,921	-15	-7	664	544	-6	-4	10.80	9.99	10.81	9.49	10.68	10.10	9.99	10.09	10.09	9.66	7.65	6.49	6.39	9.03	10.63
10/26 6:20	1,674	1,668	1,736	-23	1,718	1,549	1,491	-6	2,015	-14	-6	567	864	-5	-4	10.53	10.03	10.52	9.12	10.49	9.64	9.73	9.60	10.24	9.49	8.03	6.55	7.52	8.12	10.51
10/26 6:30	1,865	1,734	1,903	-23	1,985	1,807	1,750	-6	1,999	-15	-4	1,351	1,289	-5	-3	10.90	10.12	11.01	9.70	11.23	10.54	10.39	10.22	12.06	10.32	8.91	8.51	8.48	10.44	11.53
10/26 6:40	1,867	1,753	1,888	-22	1,960	1,820	1,714	-6	1,999	-15	-4	1,774	1,841	-4	-4	10.87	10.21	11.05	9.56	11.19	10.48	10.47	10.15	12.21	11.19	9.16	9.69	9.80	11.71	12.62
10/26 6:50	1,984	1,798	1,975	-21	2,012	1,923	1,844	-6	2,000	-15	-5	1,953	1,943	-5	-4	11.88	10.28	11.42	9.57	12.29	11.33	10.72	11.22	11.45	9.89	10.95	11.04	10.23	12.91	13.29
10/26 7:00	2,004	1,928	1,996	-21	1,999	2,001	1,959	-6	2,000	-15	-4	1,886	1,942	-6	-4	12.02	11.02	12.15	10.44	12.72	11.93	10.99	12.24	11.83	9.49	10.93	11.08	10.82	12.46	13.23
10/26 7:10	2,000	2,000	2,008	-20	2,000	1,994	1,936	-6	1,999	-15	-4	1,903	1,808	-6	-4	12.23	11.48	12.19	10.63	12.87	12.13	10.91	11.34	11.69	9.03	9.16	10.38	9.61	11.82	12.76
10/26 7:20	2,000	1,966	1,999	-21	1,979	1,856	1,862	-7	1,692	-15	-5	1,418	1,365	-6	-5	11.95	10.95	11.87	9.72	11.98	11.00	10.40	11.43	9.66	8.54	9.63	8.71	8.32	10.98	12.04
10/26 7:30	1,999	2,015	2,001	-20	2,001	1,835	1,814	-7	1,856	-15	-5	1,753	1,717	-6	-5	12.23	11.10	12.09	9.59	12.04	10.89	10.26	11.18	9.97	9.69	10.23	9.74	10.02	12.33	12.49
10/26 7:40	2,000	2,000	2,000	-21	1,999	1,953	1,919	-7	1,687	-14	-5	1,329	1,203	-6	-5	12.80	11.89	12.53	9.80	12.14	11.85	11.53	11.79	9.79	8.30	9.33	8.82	8.35	10.72	11.40
10/26 7:50	2,000	1,991	1,999	-20	1,833	1,678	1,744	-7	1,944	-15	-5	1,294	1,183	-6	-5	12.46	11.75	12.98	9.20	10.61	10.45	10.93	10.83	11.32	8.66	9.54	8.73	8.22	10.83	11.99
10/26 8:00	2,000	2,008	2,000	-21	1,865	1,624	1,694	-8	1,839	-15	-5	1,399	1,022	-6	-5	12.75	11.99	12.83	9.45	10.96	10.42	11.06	11.43	10.55	8.94	9.58	9.00	8.49	10.79	12.16
10/26 8:10	1,999	1,983	1,996	-22	1,963	1,645	1,365	-7	1,709	-15	-5	983	514	-6	-5	12.95	11.75	12.60	9.50	11.65	10.79	9.99	12.04	9.99	7.86	9.06	7.76	7.19	9.67	11.22
10/26 8:20	1,983	1,972	1,993	1,339	1,857	1,626	1,414	853	1,671	210	-5	911	708	-6	-5	12.07	11.15	12.10	9.54	11.11	10.83	10.39	12.37	9.97	7.56	8.26	7.58	6.99	9.12	9.40
10/26 8:30	2,001	1,884	1,970	1,264	1,595	1,368	1,208	2,011	1,601	804	1,440	868	581	631	986	12.07	10.97	11.56	9.09	10.23	9.90	9.55</								

10/26 11:10	1,714	1,353	793	1,757	1,805	1,182	1,080	828	1,103	783	936	428	1,249	660	1,770	10.39	9.42	7.33	10.96	10.73	9.56	9.27	7.31	8.09	7.14	7.13	5.48	8.65	6.08	9.87
10/26 11:20	1,738	1,284	750	1,623	1,648	1,062	1,123	692	761	475	810	449	1,189	606	1,587	10.55	9.14	7.14	10.62	10.45	8.91	9.64	7.07	7.22	6.03	7.01	5.52	8.39	5.86	9.19
10/26 11:30	1,712	1,370	658	1,550	1,387	689	904	774	828	698	896	419	1,161	581	1,569	10.55	9.66	6.92	10.62	9.85	8.78	8.91	7.14	7.40	6.75	7.11	5.32	8.32	5.55	9.25
10/26 11:40	1,517	1,211	679	1,544	1,372	652	908	699	577	433	754	525	1,361	662	1,481	9.85	8.92	6.95	10.68	9.70	6.48	8.83	6.79	6.81	5.83	6.48	6.02	8.72	6.20	8.80
10/26 11:50	1,503	1,187	518	1,282	1,285	731	700	669	722	526	988	631	1,313	711	1,556	9.80	8.90	6.10	9.42	9.09	7.40	7.92	6.69	6.86	6.32	7.35	6.24	8.65	6.20	9.18
10/26 12:00	1,582	950	504	1,215	1,042	651	682	365	235	170	851	649	1,168	716	1,537	9.93	7.75	6.22	9.07	8.62	7.16	7.60	5.41	5.36	3.99	6.81	6.61	8.36	6.28	9.11
10/26 12:10	1,367	708	518	1,105	1,092	801	579	330	29	216	829	582	1,067	644	1,492	9.71	7.46	6.00	8.69	8.94	7.62	6.96	5.48	6.01	4.80	7.10	6.19	8.06	5.89	8.86
10/26 12:20	1,055	522	339	838	716	428	315	182	256	200	549	305	676	331	1,074	8.57	6.64	5.22	7.73	7.58	6.11	5.86	4.32	4.65	4.79	5.81	5.08	7.07	4.63	8.06
10/26 12:30	1,162	599	510	934	921	680	515	102	72	60	307	192	604	458	1,124	8.68	6.59	6.06	7.99	8.14	7.33	6.82	4.08	3.80	3.64	5.12	4.38	6.77	5.75	8.13
10/26 12:40	1,122	543	702	1,130	1,091	693	445	228	202	101	540	370	902	732	1,312	8.35	6.46	6.88	8.71	8.32	7.65	6.64	4.73	5.01	3.89	6.02	5.35	7.80	6.72	8.38
10/26 12:50	1,437	786	1,016	1,469	1,469	1,062	690	238	201	106	457	479	1,164	1,098	1,701	9.37	7.45	8.06	10.02	9.68	8.71	7.53	4.99	4.98	4.08	5.42	5.93	8.36	7.91	9.32
10/26 13:00	1,480	767	1,167	1,495	1,485	1,204	787	467	340	128	915	1,233	1,531	1,640	1,909	9.43	6.94	8.77	10.24	10.07	9.11	7.74	6.06	5.59	4.31	7.16	8.38	8.98	9.60	9.90
10/26 13:10	1,566	858	1,412	1,663	1,741	1,383	826	408	344	62	1,272	1,266	1,448	1,769	1,953	9.77	7.55	9.66	10.82	10.63	9.78	8.30	5.90	5.41	3.33	8.60	8.65	8.78	9.88	10.20
10/26 13:20	1,842	1,040	1,528	1,849	1,899	1,598	1,143	505	232	38	1,652	1,613	1,527	2,006	2,005	10.90	8.21	10.14	11.34	11.00	10.25	9.34	6.48	4.98	3.30	9.74	9.82	8.85	10.97	10.48
10/26 13:30	1,961	1,150	1,608	1,898	1,951	1,750	1,434	544	249	301	1,975	1,945	1,956	1,999	2,000	11.62	8.50	10.47	11.54	11.40	11.12	10.10	6.38	4.56	5.15	11.23	10.46	10.41	11.46	10.93
10/26 13:40	2,017	1,558	1,687	2,014	1,999	1,819	1,433	485	234	1,064	1,999	1,999	1,999	1,999	1,999	13.25	10.49	11.57	12.60	12.47	11.49	10.00	6.04	4.01	7.76	11.75	10.65	10.72	11.61	10.75
10/26 13:50	1,999	1,678	1,706	2,001	1,999	2,016	1,746	416	199	855	1,999	1,955	1,916	1,999	1,999	14.08	10.89	11.67	12.92	12.85	12.38	11.89	5.64	3.77	7.03	11.26	10.00	10.42	11.39	10.70
10/26 14:00	2,000	1,519	1,611	1,999	1,999	1,999	1,859	245	174	507	1,999	1,713	1,572	1,999	1,998	13.82	10.34	11.33	13.11	13.08	13.38	13.03	4.76	3.76	6.26	10.81	9.61	9.53	10.89	10.41
10/26 14:10	1,999	1,375	1,632	1,999	1,999	1,998	1,988	265	349	633	1,999	1,691	1,496	1,999	1,999	13.59	9.64	11.98	13.38	13.45	14.13	13.49	4.95	5.13	6.57	10.84	9.55	9.13	10.90	10.34
10/26 14:20	1,999	1,266	1,547	2,000	1,999	2,000	1,963	334	303	782	2,000	1,739	1,517	1,997	1,999	13.35	9.26	11.64	12.93	13.16	13.95	13.65	5.42	4.75	7.24	10.98	10.05	9.51	10.72	10.22
10/26 14:30	2,000	1,451	1,639	1,975	1,998	1,994	1,899	460	329	1,187	1,999	2,003	1,801	2,000	2,000	13.71	10.10	11.67	12.89	13.03	13.83	13.06	6.11	4.84	8.40	11.77	10.31	10.13	11.30	10.41
10/26 14:40	1,998	1,428	1,694	1,960	1,999	1,821	1,545	561	411	1,460	2,000	1,999	1,970	2,000	1,991	12.90	10.50	11.29	12.81	13.01	12.66	11.32	6.33	5.21	9.07	12.13	10.48	10.41	11.19	10.17
10/26 14:50	2,000	1,294	1,616	1,994	1,999	1,947	1,676	292	165	800	1,999	1,918	1,904	2,000	2,008	12.47	9.73	10.76	12.68	12.86	11.94	11.50	5.20	3.63	7.03	11.09	10.02	10.19	11.14	10.19
10/26 15:00	1,859	971	1,060	1,808	1,997	1,900	1,801	165	237	648	1,999	1,752	1,618	1,999	2,000	11.87	8.16	8.41	11.83	12.03	12.37	10.92	4.60	4.30	6.84	10.55	9.60	9.56	11.12	10.38
10/26 15:10	1,930	1,116	881	1,854	2,002	1,928	1,836	94	238	691	1,982	1,826	1,722	2,001	1,998	12.15	9.30	6.92	11.83	12.03	12.65	12.25	3.80	4.61	6.98	10.43	9.76	9.74	11.36	10.63
10/26 15:20	1,517	841	535	1,628	1,815	1,837	1,726	139	629	818	1,926	1,704	1,590	2,000	1,984	10.23	8.50	5.71	10.53	11.87	12.38	12.76	4.31	7.30	7.97	10.15	9.55	9.42	11.16	10.52
10/26 15:30	1,399	786	531	1,542	1,767	1,806	1,718	130	467	805	1,932	1,491	1,424	1,982	1,946	9.71	8.17	5.54	10.53	11.67	11.98	12.67	4.34	6.54	8.01	10.02	9.26	9.02	11.03	10.26
10/26 15:40	1,076	336	272	1,587	1,830	1,694	1,637	305	716	1,132	1,923	1,591	1,558	2,000	1,999	8.38	5.48	4.85	10.51	11.32	10.88	11.71	5.43	7.73	8.72	10.10	9.11	9.20	11.11	10.73
10/26 15:50	1,510	622	518	1,755	2,011	1,796	1,558	328	877	1,163	1,967	1,825	1,811	2,000	1,999	10.27	7.50	5.75	11.63	11.85	11.22	10.20	5.47	8.01	8.65	10.52	9.79	9.86	11.42	11.29
10/26 16:00	907	229	409	1,614	1,999	1,784	1,589	65	307	600	1,411	1,361	1,502	1,879	1,939	7.78	4.28	5.08	10.89	11.49	11.07	10.36	4.04	5.57	6.54	8.60	8.54	9.11	10.60	10.32
10/26 16:10	592	92	743	1,551	1,908	1,833	1,845	63	565	673	1,138	661	673	1,206	1,259	6.26	3.12	6.69	10.32	11.29	11.18	11.18	6.14	6.71	6.98	8.39	7.11	7.20	8.90	8.63
10/26 16:20	816	137	841	1,668	1,871	1,687	1,584	675	1,526	1,646	2,004	1,892	1,889	2,019	2,017	7.58	3.68	6.99	10.89	11.19	10.60	10.36	6.81	9.95	9.68	11.08	10.23	10.01	11.73	11.38
10/26 16:30	1,263	255	632	1,766	2,015	1,945	1,739	1,158	1,927	1,882	1,999	1,999	2,005	1,999	1,999	8.08	4.96	5.85	11.27	11.10	10.77	11.41	8.31	10.61	10.24	11.64	10.63	10.58	12.19	11.55
10/26 16:40	1,096	300	516	1,641	1,944	1,909	1,800	987	1,761	1,636	1,999	1,980	1,976	2,000	1,999	8.39	4.84	5.54	10.90	11.29	11.67	11.65	7.67	10.03	9.51	11.20	10.21	10.29	12.00	12.21
10/26 16:50	1,063	121	776	1,783	2,002	1,812	1,658	1,414	2,017	1,851	1,999	2,012	2,006	1,999	1,999	8.14	3.13	6.40	11.35	11.45	11.20	11.19	8.99	10.87	9.94	11.73	10.44	10.76	12.87	12.62
10/26 17:00	1,077	103	1,098	1,925	2,001	1,940	1,897	1,735	1,994	2,014	1,999	1,998	2,000	2,001	2,002	8.15	3.17	7.61	11.68	12.13	11.84	11.54	9.85	10.92	10.70	12.91	11.05	10.66	12.67	12.95
10/26 17:10	1,210	488	1,862	2,009	1,999	2,016	1,984	1,265	2,005	1,963	1,999	2,000	2,000	1,999	1,999	8.31	5.88	11.06	13.08	13.26	12.83	11.69	8.50	10.67	10.52	11.95	10.92	11.00	12.61	12.27
10/26 17:20	1,469	996	2,012	1,999	1,999	1,999	1,999	1,535	1,999	2,016	1,999	1,999	1,999	2,000	1,999	9.96	8.23	12.60	13.73	14.09	14.18	12.53	9.44	11.07	10.64	11.85	10.97	10.87	12.95	12.96
10/26 17:30	1,631	1,100	1,999	1,999	1,999	1,999	1,999	1,351	1,999	1,904	1,999	1,997	1,977	1,999	1,999	11.10	8.63	12.54	13.77	13.89	14.46	13.52	8.29	11.04	10.45	11.84	10.63	10.49	12.64	12.13
10/26 17:40	1,912	1,414	2,001	1,999	1,999	1,999	1,999	1,310	2,001	1,934	1,999	2,002	1,973	2,000	1,999	12.49	9.63	12.84	14.03	13.81	14.43	14.04	8.22	11.11	10.45	11.35	10.29	10.29	12.08	11.12
10/26 17:50	1,999	1,492	1,999	2,000	1,999	1,999	1,999	1,315	1,999	1,867	1,999	1,999	1,867	1,999	1,999	13.09	10.02	12.82	13.77	13.56	13.96	13.72								

10/26 21:00	1,009	892	1,213	1,116	1,322	1,224	1,309	1,159	1,359	1,635	1,713	1,628	1,670	1,581	1,727	8.18	7.56	8.67	8.91	9.35	9.08	9.85	8.17	8.96	9.46	9.63	9.39	9.54	9.61	9.91
10/26 21:10	1,042	1,017	1,086	1,282	1,396	1,444	1,268	1,070	1,292	1,524	1,857	1,512	1,151	1,332	1,528	8.49	8.27	8.30	9.45	9.55	10.16	9.50	7.94	8.66	9.17	10.10	9.04	8.22	9.08	9.31
10/26 21:20	973	726	898	964	1,255	1,108	1,007	1,080	1,334	1,512	1,739	1,046	1,249	1,124	1,613	8.53	7.50	7.84	8.64	9.34	8.84	8.71	8.17	9.12	9.05	9.81	7.90	8.67	9.08	9.38
10/26 21:30	841	1,005	1,129	887	1,069	1,287	1,289	1,659	1,549	1,639	1,790	1,781	1,576	1,548	1,588	7.93	8.47	8.54	8.40	8.89	9.48	9.59	9.68	9.76	9.46	9.95	9.96	9.29	9.55	9.24
10/26 21:40	884	1,029	1,105	979	1,313	1,224	1,242	1,641	1,118	915	1,457	1,569	1,202	1,727	1,331	8.00	8.35	8.45	8.21	9.90	9.56	9.55	9.85	8.35	7.48	9.07	9.24	8.25	10.14	8.63
10/26 21:50	877	1,088	979	936	1,197	1,303	1,407	999	1,133	661	687	545	711	880	901	8.06	8.54	7.94	8.37	8.96	9.56	9.88	7.91	8.39	7.06	6.67	6.37	6.86	7.30	7.53
10/26 22:00	994	865	1,221	957	1,036	1,385	1,288	743	731	1,039	839	621	487	585	617	8.35	7.90	8.66	8.27	8.51	9.84	9.46	7.10	7.42	7.95	7.42	6.83	6.13	6.37	6.84
10/26 22:10	788	851	983	988	1,072	1,206	1,387	700	811	705	774	798	729	793	828	7.48	7.72	7.89	8.43	8.57	9.08	9.71	7.07	7.84	7.10	7.08	7.26	7.10	7.29	7.35
10/26 22:20	1,152	814	993	915	830	763	938	670	664	614	808	707	460	608	695	9.05	7.54	7.89	7.96	7.85	7.62	8.28	7.15	7.17	6.82	7.01	6.99	6.08	6.40	6.90
10/26 22:30	1,010	1,030	1,234	1,011	1,092	835	1,060	715	483	429	737	714	600	677	616	8.28	8.15	8.83	8.43	8.65	7.85	8.78	7.16	6.34	6.16	7.01	6.97	6.65	6.86	6.70
10/26 22:40	1,207	1,178	1,303	830	947	1,161	1,040	913	594	867	869	936	741	862	725	9.29	8.94	9.08	8.10	8.51	9.03	8.81	7.59	6.97	7.66	7.34	7.80	7.09	7.43	7.19
10/26 22:50	1,339	1,446	1,578	1,270	1,128	1,371	1,472	679	731	940	972	744	611	647	925	9.63	9.43	10.00	9.43	8.45	9.58	9.95	6.85	7.42	7.66	7.55	7.12	6.71	6.46	7.47
10/26 23:00	1,108	1,087	1,119	1,026	824	1,058	1,141	591	583	448	631	462	363	377	568	8.77	8.35	8.41	8.71	8.20	9.09	8.97	6.83	6.85	6.21	6.75	6.16	5.71	5.80	6.72
10/26 23:10	979	817	791	651	759	929	1,018	508	473	722	685	489	524	612	726	8.57	7.59	7.34	7.43	7.79	8.19	8.88	6.34	6.45	7.30	6.97	6.33	6.25	6.65	7.03
10/26 23:20	719	893	962	777	802	950	933	505	622	682	643	471	286	360	661	7.38	7.97	7.99	8.01	7.98	8.20	8.27	6.55	7.02	7.04	6.74	6.18	5.16	5.62	6.80
10/26 23:30	504	560	690	565	588	773	871	481	395	412	559	452	451	425	540	6.59	6.64	7.07	6.95	7.09	7.72	8.34	6.33	6.06	6.00	6.41	6.27	6.06	5.80	6.44
10/26 23:40	570	664	624	401	577	627	552	484	465	496	655	583	340	261	591	6.70	7.00	6.89	5.82	6.96	7.51	7.20	6.54	6.27	6.39	6.35	6.45	5.45	4.82	6.40
10/26 23:50	550	582	451	392	488	500	425	619	362	478	475	450	245	412	455	6.59	6.67	5.96	6.24	6.38	6.67	6.63	6.88	6.03	6.35	6.14	5.97	5.02	5.82	6.22
10/27 0:00	763	471	716	531	608	593	502	604	532	588	527	491	425	482	701	7.62	6.13	7.00	6.62	6.69	6.99	6.92	6.80	6.48	6.76	6.40	6.37	6.06	5.90	7.00
10/31 0:10	242	167	240	196	142	197	-19	2	-15	56	160	118	97	120	229	4.49	4.30	4.78	4.66	5.70	6.51	7.44	2.99	2.73	3.80	4.54	4.18	4.16	3.31	5.34
10/31 0:20	198	151	200	156	221	182	-20	-13	11	92	184	129	103	114	232	4.29	4.06	4.37	4.41	6.88	5.94	5.90	2.71	3.23	4.28	4.79	4.34	4.25	3.31	5.51
10/31 0:30	157	277	300	223	249	158	-20	-32	-27	14	123	74	74	55	214	3.86	4.84	4.93	4.73	6.88	5.37	5.62	2.17	2.14	3.25	4.18	3.92	3.74	2.53	5.14
10/31 0:40	108	163	215	180	174	154	-20	-27	-26	-21	43	27	3	3	85	3.26	3.96	4.50	4.54	5.93	5.00	5.53	1.98	2.00	2.71	3.47	3.20	2.99	2.41	3.99
10/31 0:50	24	35	70	87	86	101	-20	-24	-23	-19	-26	-25	-27	-27	-23	2.29	2.72	3.11	3.46	3.83	4.53	5.67	2.06	1.59	1.88	1.67	2.12	2.08	1.81	2.52
10/31 1:00	18	-3	5	4	90	105	-20	-25	-24	-17	-24	-23	-24	-26	-25	2.84	2.47	2.60	2.49	3.98	4.86	6.38	1.64	1.51	1.85	2.19	1.52	1.54	2.02	2.18
10/31 1:10	48	0	3	-9	135	195	-20	-25	-23	-17	-23	-22	-23	-24	-24	3.10	3.03	2.82	2.87	5.13	5.45	5.72	2.54	1.56	1.63	2.15	1.53	1.68	2.12	2.75
10/31 1:20	79	46	54	73	161	246	-19	-8	-24	-17	-22	-21	-22	-21	-24	3.26	3.28	3.20	3.50	5.66	5.16	5.30	3.19	2.93	2.75	2.42	2.16	2.44	2.30	3.15
10/31 1:30	154	130	159	164	204	194	-20	110	1	-18	71	-23	-23	-21	88	3.91	3.89	4.41	4.73	5.54	4.89	4.27	3.69	2.97	2.91	4.14	3.11	3.00	2.37	4.82
10/31 1:40	190	140	203	228	204	188	-19	208	100	15	118	-16	33	48	147	4.46	4.54	4.77	5.31	4.93	4.83	4.19	4.67	3.78	2.52	4.04	1.79	3.12	3.33	4.88
10/31 1:50	180	121	141	160	247	244	-20	227	92	17	114	-19	7	116	51	4.25	3.99	3.95	4.52	5.47	5.13	4.83	4.80	3.76	2.89	4.24	2.19	2.24	3.32	3.47
10/31 2:00	186	109	59	49	189	238	-19	219	62	67	191	43	40	136	-8	4.25	4.03	3.15	3.27	5.48	5.00	4.92	4.77	3.48	4.02	5.16	3.58	2.87	3.78	3.04
10/31 2:10	222	166	132	108	192	167	-20	192	55	18	167	95	164	269	27	4.04	4.38	3.91	4.08	5.14	4.14	4.50	4.55	3.39	3.00	4.97	4.39	5.16	5.15	3.48
10/31 2:20	292	252	236	177	239	185	-19	190	81	-22	116	80	112	159	134	4.49	5.00	4.67	4.59	5.14	4.41	3.98	4.75	4.16	2.80	4.40	3.68	4.01	3.66	4.62
10/31 2:30	241	234	239	237	247	143	-20	286	142	7	183	180	229	238	213	4.45	4.79	4.47	4.71	4.85	3.85	3.30	5.37	4.44	3.04	4.86	4.74	4.91	4.35	5.31
10/31 2:40	192	173	166	160	149	80	-20	257	114	15	182	242	269	226	222	4.05	4.44	4.20	4.38	4.11	2.98	3.22	5.18	4.01	2.97	4.71	5.24	5.31	4.53	5.43
10/31 2:50	209	211	195	145	74	48	-20	215	89	23	157	146	192	175	182	4.33	4.83	4.59	4.55	3.01	2.67	3.15	4.83	3.92	2.78	4.50	4.78	4.93	4.44	5.48
10/31 3:00	174	184	155	115	-6	-19	-20	155	19	55	97	-4	14	161	179	4.20	4.73	4.16	4.09	1.87	1.85	2.82	4.61	3.07	3.17	3.77	2.38	3.05	4.28	5.04
10/31 3:10	146	163	142	127	29	-13	-20	215	51	46	105	23	94	177	180	3.65	4.50	3.61	3.93	2.43	1.90	2.60	4.99	3.71	3.21	4.13	3.21	4.13	4.33	4.89
10/31 3:20	116	129	103	94	46	-17	-20	227	93	28	80	11	112	184	155	3.64	4.23	3.39	3.24	2.82	2.23	2.60	5.07	4.01	3.22	3.53	3.07	4.26	4.20	4.66
10/31 3:30	102	94	70	64	82	44	-20	204	86	10	49	5	128	166	117	3.47	3.63	3.32	3.24	3.42	3.09	3.37	4.85	3.69	3.13	3.10	3.07	4.26	3.94	4.46
10/31 3:40	99	67	61	48	96	98	-21	209	52	23	46	-27	46	156	77	3.20	3.59	3.09	3.08	3.53	3.81	4.15	4.83	3.29	3.38	3.54	1.85	3.41	3.76	4.05
10/31 3:50	133	100	94	98	152	165	-19	132	9	20	89	-18	26	169	61	3.61	3.62	3.37	3.52	4.18	4.40	4.90	4.36	2.83	3.74	4.18	2.07	2.94	4.05	2.81
10/31 4:00	232	202	190	192	209	206	-19	121	33	-10	126	134	209	244	225	4.08	4.59	4.29	4.44	4.58	4.58	5.17	4.30	3.34	2.60	4.30	4.70	5.01	4.62	5.38
10/31 4:10	223	215	218	205	144	174	-20	195	58	-27	189	240	252	261	230	3.90	4.46	4.20	4.45	4.23	4.49	4.63	4.78	3.60	2.63	5.09	5.34	5.20	4.63	5.03
10/31 4:20	162	151	147	126	95	85	-20	197	90	-23	141	205	207	202	174	3.62	4.01	3.55	3.86	3.70	3.67	3.89	4.76	3.96	2.64	4.78	5.04	4.77	4.07	4.72
10																														

10/31 6:40	21	4	9	1	10	5	-20	-26	-23	-17	-23	-22	-22	-24	-30	2.44	2.64	2.75	2.38	2.64	2.64	3.22	1.83	1.49	1.24	1.74	1.17	1.36	2.52	2.13
10/31 6:50	10	2	5	-12	-23	-19	-20	-26	-23	-18	-24	-23	-23	-23	-26	2.43	2.43	2.34	2.16	1.86	2.13	2.91	1.88	1.31	1.01	1.17	0.71	1.08	2.23	1.66
10/31 7:00	-26	-23	-25	-26	-27	-25	-20	-28	-23	-17	-23	-23	-24	-27	-25	1.31	1.66	1.47	1.27	1.47	1.87	2.45	1.64	1.53	1.40	2.17	1.40	0.85	1.91	1.02
10/31 7:10	-23	-20	-26	-25	-25	-22	-20	-26	-23	-17	-23	-22	-22	-23	-23	1.97	1.57	1.61	1.29	1.75	2.31	2.70	1.80	1.49	1.80	2.58	1.98	1.42	1.68	1.65
10/31 7:20	-27	-20	-27	-23	-24	-25	-20	-25	-23	-17	-24	-24	-24	-23	-24	1.75	1.86	1.84	1.53	1.44	1.58	1.94	1.53	1.01	0.78	1.11	1.08	1.20	1.53	1.12
10/31 7:30	-25	-20	-25	-22	-23	-24	-20	-25	-9	-17	-22	-24	-22	-22	-24	1.54	1.88	1.81	1.52	1.81	1.89	2.02	1.20	0.82	0.67	1.05	0.63	0.75	1.02	1.30
10/31 7:40	-23	-20	-23	-23	-24	-23	-20	-24	-9	-18	-23	-23	-24	-22	-23	1.97	1.48	1.43	1.43	1.90	1.83	1.91	1.23	1.03	1.16	1.52	1.29	1.77	1.36	1.31
10/31 7:50	-23	-18	-23	-23	-23	-22	-20	-24	-8	-17	-23	-24	-24	-23	-24	1.54	1.08	1.09	1.66	1.38	1.42	1.41	1.09	1.35	1.20	1.22	1.46	1.09	0.82	1.04
10/31 8:00	-21	-18	-22	-22	-23	-22	-20	-26	-9	-19	-22	-24	-24	-21	-22	0.91	0.75	0.83	1.04	0.84	0.74	0.73	0.71	0.67	0.63	0.56	0.87	0.88	0.66	0.82
10/31 8:10	-22	-18	-23	-23	-23	-22	-20	-18	-9	-18	-23	-23	-23	-21	-8	0.65	0.69	0.55	0.44	0.69	0.75	0.68	0.78	0.78	0.86	1.18	1.06	1.08	0.86	0.73
10/31 8:20	-22	-18	-23	-23	-23	-22	-21	-10	-9	-18	-23	-23	-23	-20	-8	0.75	0.45	0.37	0.45	0.40	0.43	0.65	0.93	0.66	0.76	0.86	1.02	1.06	0.59	0.78
10/31 8:30	-23	-17	-22	-22	-20	-23	-20	-9	-8	-17	-23	-23	-22	-20	-8	0.87	0.30	0.70	0.48	0.70	0.82	1.18	0.89	0.93	1.12	1.08	0.64	1.28	1.34	1.53
10/31 8:40	-23	-18	-22	-22	-20	-22	-20	-10	-8	-17	-23	-23	-22	-20	-8	0.96	0.87	1.24	1.21	1.19	1.73	1.46	0.86	1.08	1.55	1.35	1.68	1.60	1.46	1.14
10/31 8:50	-22	-18	-23	-23	-20	-23	-20	-9	-5	-18	-23	-23	-22	-20	-8	1.69	1.78	1.67	1.60	1.64	1.63	1.22	1.54	1.24	1.94	2.11	2.11	2.01	2.05	2.35
10/31 9:00	-23	-18	-22	-22	-20	-23	-20	-10	-6	-17	-23	-23	-23	-20	-8	2.08	2.34	1.97	1.99	1.91	2.33	2.05	1.63	1.78	1.88	2.10	2.15	2.33	2.47	2.69
10/31 9:10	-22	-18	-23	-22	-20	-22	-20	-7	-6	-15	-23	-23	-23	-21	-8	2.56	2.17	2.16	2.34	2.19	2.48	2.39	2.00	2.81	2.60	2.65	2.77	2.47	2.55	3.07
10/31 9:20	-23	-18	-22	-23	-20	-22	-20	-7	-5	-14	-22	-19	-20	-20	-5	2.09	1.47	1.49	1.75	1.65	1.67	2.01	2.32	2.06	1.82	1.65	2.04	1.76	1.15	2.20
10/31 9:30	-22	-18	-22	-22	-19	-22	-20	-6	-6	-14	-22	-19	-20	-19	-6	1.56	1.49	1.50	1.60	1.76	1.76	1.84	2.10	2.28	2.28	2.14	1.71	1.74	1.98	1.81
10/31 9:40	-22	-18	-22	-22	-20	-23	-20	-7	-6	-15	-22	-19	-20	-19	-6	1.88	1.66	1.69	1.94	2.06	2.39	1.90	2.32	2.43	2.82	1.81	2.20	2.37	2.39	2.49
10/31 9:50	-19	-18	-22	-23	-20	-23	-20	-7	-6	-15	-23	-19	-20	-19	-6	2.33	1.68	1.48	1.75	1.84	1.93	1.82	1.69	2.56	2.83	1.98	2.50	2.66	2.11	2.46
10/31 10:00	-19	-18	-23	-22	-20	-23	-20	-6	-6	-15	-22	-20	-20	-19	-6	1.67	1.54	1.29	1.54	1.65	1.59	1.20	2.34	2.48	2.56	1.94	2.22	2.78	2.23	2.08
10/31 10:10	-19	-18	-23	-20	-21	-23	-20	-6	-6	-15	-22	-19	-21	-19	-6	1.49	1.36	1.18	1.56	1.35	1.87	1.90	1.80	1.92	2.12	1.88	2.36	2.59	2.30	2.26
10/31 10:20	-20	-18	-23	-20	-20	-22	-20	-7	-6	-15	-22	-19	-22	-20	-6	1.73	1.93	2.01	2.20	2.58	2.35	2.32	2.28	2.74	2.46	1.66	2.62	2.46	2.44	2.64
10/31 10:30	-19	-18	-23	-20	-20	-22	-20	-9	-6	-17	-22	-17	-20	-19	4	2.35	2.01	1.97	2.51	2.21	2.06	1.87	2.96	2.35	2.28	2.55	3.18	3.18	3.06	3.13
10/31 10:40	-20	-18	-22	-20	-20	-22	-20	8	-6	-16	-23	-14	4	-9	-2	1.86	1.87	1.98	2.37	1.99	2.06	2.22	3.12	2.20	2.08	2.29	2.90	3.12	2.52	2.64
10/31 10:50	-19	-18	-23	-20	-22	-22	-20	17	-8	-18	-24	-14	-5	10	45	2.11	2.21	2.80	3.23	3.15	3.15	2.60	2.67	2.91	3.32	2.93	2.53	2.81	2.97	3.50
10/31 11:00	-20	-19	-23	-22	-24	-10	-19	-3	13	-5	-20	11	4	-7	15	2.67	2.48	2.82	2.85	2.46	2.77	2.36	2.78	3.26	3.13	3.04	3.43	3.41	2.67	2.88
10/31 11:10	-20	-17	-24	-12	-8	13	-20	33	-1	9	-4	37	42	19	22	2.14	2.53	2.13	2.82	2.66	2.92	2.07	3.49	2.77	2.95	3.55	3.54	3.56	3.07	2.98
10/31 11:20	-19	-15	-24	-9	-10	-17	-21	13	36	35	80	8	66	31	59	2.23	2.16	2.15	2.71	2.62	2.47	3.14	3.32	3.51	3.40	4.08	3.18	3.68	3.17	3.50
10/31 11:30	-19	-15	-21	-20	-10	-14	-20	-11	5	-15	-11	-9	25	28	27	1.91	1.95	1.93	2.50	2.68	2.70	2.76	2.62	2.59	2.62	2.77	2.80	3.32	3.22	3.07
10/31 11:40	-20	-15	-24	-15	-11	-5	-23	-9	71	10	84	45	15	27	49	2.30	1.92	2.27	2.80	2.90	2.60	2.40	3.10	3.91	3.45	4.00	3.76	3.24	3.10	3.37
10/31 11:50	-21	-15	-24	-24	-17	-22	-22	-9	11	19	25	10	-8	-10	17	2.46	2.39	1.88	2.17	2.99	2.12	2.11	2.72	3.02	3.03	3.43	3.36	2.77	2.43	2.71
10/31 12:00	-23	-15	-21	-22	-1	-17	-21	-10	17	8	2	-6	16	10	27	2.32	2.25	2.34	2.46	2.74	2.77	2.64	2.77	3.03	2.83	2.98	3.03	3.41	2.88	3.05
10/31 12:10	-23	-15	-21	-20	-16	-21	-21	-7	33	25	40	0	28	-6	24	1.81	1.70	1.96	2.48	2.60	2.40	2.58	2.27	3.30	3.46	3.64	3.20	3.24	2.88	3.16
10/31 12:20	-22	-15	-21	-22	-17	-23	-21	12	-7	-18	-10	5	16	11	14	2.03	2.25	1.49	1.84	2.57	2.46	2.12	3.24	2.34	1.63	2.76	2.80	3.00	3.19	2.96
10/31 12:30	-20	-15	-21	-21	-22	-21	-22	-6	-8	-17	31	-14	-15	-24	-10	1.36	1.57	1.27	1.71	2.02	2.41	1.64	2.17	2.01	3.14	3.51	3.24	2.75	2.19	2.30
10/31 12:40	-21	-15	-21	-23	-22	-22	-21	9	-6	-15	3	0	-8	-22	-8	1.77	2.06	1.60	2.01	2.44	2.83	2.29	3.03	2.51	1.72	3.08	2.86	2.76	2.46	2.44
10/31 12:50	-15	-15	-20	-22	-15	-14	-21	-8	-6	-15	-12	-17	-7	8	25	2.52	2.41	2.23	2.34	2.87	2.62	2.61	2.58	2.26	1.55	2.67	2.85	3.06	2.89	3.05
10/31 13:00	-6	-16	-21	31	36	46	-1	11	-6	-15	0	-3	19	8	14	2.61	2.68	2.61	3.38	3.56	3.59	3.44	3.02	2.68	2.53	2.91	3.36	3.26	2.90	2.86
10/31 13:10	-9	-14	29	74	84	96	28	14	-7	-16	22	17	41	20	78	2.37	3.11	3.15	4.05	4.35	4.16	4.00	2.77	2.85	1.94	3.28	3.44	3.60	3.10	3.76
10/31 13:20	34	-15	49	91	94	101	42	0	-6	-16	33	32	21	19	67	3.03	2.06	3.41	4.04	4.62	3.99	4.22	2.95	2.63	1.99	3.45	3.27	3.31	2.99	3.58
10/31 13:30	40	-10	48	78	87	126	38	-1	-8	-15	43	13	28	30	70	3.16	2.26	3.46	3.95	4.60	4.35	4.20	2.63	2.61	2.16	3.53	3.16	3.40	3.24	3.63
10/31 13:40	17	-17	49	98	107	121	65	40	-6	-15	47	18	24	56	78	2.65	2.05	3.42	4.05	4.62	4.10	4.58	3.43	2.66	2.62	3.50	3.25	3.23	3.43	3.75
10/31 13:50	14	26	71	86	109	105	45	8	-5	-14	60	19	29	50	131	2.61	3.07	3.59	3.80	4.59	3.89	4.26	2.69	2.63	2.65	3.72	3.26	3.46	3.30	4.17
10/31 14:00	90	109	98	178	184	157	85	48	4	10	159	108	114	156	168	3.65	4.03	3.93	4.66	5.20	4.48	4.55	3.30	2.30	2.94	4.53	4.11	4.34	4.34	4.50
10/31 14:10	113	81	110	172	238	267	103	110	24	54	237	164	236	230	258	3.85	3.63	3.92	4.98	5.62	5.23	5.79	4.03	2.78	3.50	4.96	4.56	5.27	4.85	5.12
10/31 14:20	107	139	182	215	311	307	126	96	50	23	133	174	239	245	291	3.83	4.33	4.88	5.56	6.43	5.50	6.37	3.73	3.37	3.28	4.25	4.60	5.33	5.04	5.34
10/31 14:30	165	167	184	253	344	348	159	82	22	67	233	221	195	226	283	4.40	4.50	4.86	5.82	6.28	5.68	6.63	3.69	2.94	3.85	5				

10/31 16:30	847	798	1,104	1,089	1,021	991	532	398	153	94	1,273	855	750	977	1,076	7.08	7.82	9.11	9.39	10.11	8.60	9.30	5.66	3.94	3.56	8.49	7.38	7.08	8.27	8.02
10/31 16:40	846	946	1,227	1,239	1,141	1,195	740	347	143	99	1,299	922	895	1,224	1,305	6.94	8.42	9.59	9.94	10.50	9.59	10.66	5.31	3.83	3.62	8.65	7.53	7.52	8.93	8.71
10/31 16:50	944	1,041	975	1,259	1,195	1,247	809	647	322	307	1,348	941	790	1,063	1,150	7.61	8.87	8.82	9.70	9.92	9.45	10.88	6.58	4.99	4.63	8.72	7.55	7.16	8.25	8.15
10/31 17:00	1,380	1,030	665	1,351	1,324	1,335	930	832	563	502	1,396	980	853	1,118	1,127	9.29	8.89	6.40	9.72	10.30	10.31	11.11	7.09	6.30	5.48	8.90	7.81	7.50	8.57	8.15
10/31 17:10	1,430	991	935	1,517	1,481	1,475	1,058	783	465	366	1,243	924	845	1,250	1,339	9.81	8.42	8.25	10.35	11.02	11.36	11.75	7.10	5.72	4.61	8.49	7.62	7.59	8.88	8.52
10/31 17:20	1,521	861	850	1,570	1,569	1,568	1,185	410	210	176	1,297	1,105	1,083	1,484	1,497	10.07	7.80	7.37	10.28	10.99	11.48	11.94	5.68	4.02	3.17	8.60	8.09	8.35	9.50	8.93
10/31 17:30	1,566	783	986	1,648	1,686	1,708	1,297	349	263	236	1,291	1,057	1,087	1,430	1,440	10.19	7.61	8.41	10.49	11.88	12.29	12.22	5.24	4.69	4.03	8.44	7.93	8.43	9.33	8.76
10/31 17:40	1,751	922	1,407	1,900	1,911	1,900	1,457	520	183	150	1,358	1,054	1,034	1,301	1,278	11.04	8.11	10.27	11.56	12.75	13.11	12.84	6.17	4.09	2.98	8.66	7.93	8.25	9.06	8.33
10/31 17:50	1,976	1,308	1,659	1,991	1,916	1,875	1,420	744	385	363	1,954	1,386	1,299	1,568	1,579	11.61	9.64	11.05	12.04	12.90	13.14	12.86	6.89	5.08	4.91	9.86	8.66	8.86	9.51	9.19
10/31 18:00	1,784	1,386	1,854	1,952	1,906	1,843	1,421	648	672	634	1,927	1,392	1,296	1,685	1,642	10.36	9.80	11.38	12.04	13.15	13.47	12.62	6.44	6.08	5.76	9.70	8.87	8.70	9.75	9.18
10/31 18:10	1,815	1,503	1,936	2,018	2,009	1,929	1,510	1,342	376	382	1,987	1,421	1,272	1,654	1,750	9.88	9.96	11.40	12.16	13.36	13.71	12.91	8.38	4.77	4.74	9.95	8.98	8.76	9.72	9.48
10/31 18:20	1,991	1,634	2,014	1,999	1,999	2,022	1,595	1,783	457	716	1,999	1,540	1,429	1,867	1,965	10.64	10.17	11.85	12.45	13.61	14.11	13.19	9.45	5.21	6.07	10.06	8.97	9.05	10.34	10.00
10/31 18:30	2,016	1,879	1,994	1,999	2,001	2,001	1,618	1,923	557	991	1,999	1,658	1,551	1,849	1,870	11.39	11.42	11.77	12.39	13.01	13.65	13.27	9.96	5.49	7.31	10.31	9.22	9.16	10.06	9.80
10/31 18:40	1,933	1,361	1,704	2,000	1,999	1,999	1,946	1,415	1,801	1,832	1,999	1,839	1,711	1,980	2,003	11.75	9.39	10.54	12.02	12.84	13.80	13.91	8.40	9.92	9.99	10.25	9.71	9.52	10.33	10.15
10/31 18:50	1,624	814	614	1,779	2,001	1,999	2,007	896	1,917	1,976	2,000	1,940	1,917	1,999	1,999	10.03	7.32	5.81	10.59	12.35	14.17	14.50	7.13	10.46	10.32	10.43	9.85	10.14	10.72	10.28
10/31 19:00	1,880	738	515	1,811	1,806	1,858	1,589	1,209	1,690	1,756	1,999	1,819	1,859	2,000	1,989	11.43	6.82	5.63	10.79	11.05	11.60	12.47	8.08	9.61	9.71	10.26	9.63	9.81	10.64	10.17
10/31 19:10	1,991	1,159	780	1,931	2,000	2,011	1,733	1,563	1,246	1,833	2,000	1,972	1,856	1,981	2,004	12.43	9.30	6.44	11.36	12.07	12.73	12.51	9.15	8.34	10.08	10.72	9.86	9.83	10.39	10.41
10/31 19:20	1,963	1,282	965	1,969	1,998	2,000	1,953	871	962	1,320	1,999	1,861	1,740	2,015	1,999	11.98	9.38	6.81	11.62	12.02	13.21	13.06	7.16	7.56	8.59	10.55	9.65	9.61	10.91	10.47
10/31 19:30	1,999	1,325	1,109	1,807	1,935	1,944	1,680	569	482	1,328	2,000	2,003	1,975	2,000	1,996	12.16	9.69	8.27	11.12	11.55	12.25	12.26	6.30	6.12	8.64	10.80	10.28	10.15	10.90	10.11
10/31 19:40	1,955	1,189	948	1,728	1,627	1,554	1,330	1,143	663	1,544	1,999	1,976	1,940	2,000	2,001	11.60	9.43	7.29	10.81	10.43	10.47	11.26	8.00	5.91	9.01	10.88	9.84	9.97	10.87	10.16
10/31 19:50	1,963	1,135	1,052	1,738	1,700	1,726	1,448	1,769	570	1,655	1,999	1,940	1,897	2,000	1,999	11.46	9.09	8.02	11.01	10.82	11.54	11.88	9.17	5.64	9.05	11.10	9.77	9.98	10.94	10.20
10/31 20:00	1,994	1,284	1,310	1,822	1,816	1,932	1,608	880	842	1,538	1,996	1,891	1,978	2,000	1,999	11.67	9.27	8.91	11.33	11.06	12.06	12.21	7.11	7.20	9.18	10.55	9.51	9.93	10.90	10.32
10/31 20:10	371	295	185	403	399	417	348	156	176	323	361	330	470	406	396	11.49	8.52	9.69	11.02	11.84	12.08	12.02	7.96	7.21	9.20	11.02	9.45	9.62	10.39	9.86
10/31 20:20	-24	-21	-26	-27	-25	-26	-24	-10	-10	-19	-26	-25	-27	-29	-23	12.95	8.91	10.99	11.45	11.87	11.89	12.00	7.81	6.78	7.99	9.39	8.95	8.92	9.56	8.80
10/31 20:30	1,653	1,091	759	1,401	1,449	-23	1,359	439	449	840	1,538	1,141	1,186	1,456	1,442	11.41	9.02	7.19	10.14	11.04	11.19	11.62	6.16	6.29	8.15	9.38	8.28	8.67	9.53	9.09
10/31 20:40	1,711	940	1,039	1,605	1,642	112	1,450	657	429	754	1,920	1,600	1,289	1,849	1,647	10.41	7.94	8.46	10.15	11.10	11.59	12.00	6.65	5.55	6.74	9.58	8.98	8.37	10.12	8.94
10/31 20:50	1,741	846	1,036	1,653	1,827	1,854	1,440	731	614	714	1,830	1,387	1,229	1,542	1,442	10.38	7.57	8.51	10.19	11.14	11.57	12.00	6.93	6.53	6.78	9.44	8.52	8.20	9.15	8.60
10/31 21:00	1,782	955	779	1,569	1,891	1,920	1,547	979	859	1,040	1,983	1,380	1,320	1,714	1,529	10.59	8.35	6.81	9.92	11.31	11.84	12.27	7.45	7.44	8.11	9.99	8.43	8.45	9.61	8.84
10/31 21:10	1,582	878	413	1,466	1,702	1,870	1,593	771	931	1,068	1,892	1,386	1,339	1,743	1,730	10.03	7.78	4.85	9.87	10.52	11.51	11.96	7.04	8.01	8.49	9.69	8.56	8.62	9.51	9.24
10/31 21:20	1,561	481	341	1,674	1,766	1,789	1,630	797	1,067	1,363	2,018	1,825	1,667	1,968	1,970	9.88	5.95	5.05	10.60	11.05	11.17	11.37	7.17	8.51	9.13	10.26	9.49	9.32	10.30	10.24
10/31 21:30	1,927	1,101	766	1,935	1,992	2,017	1,944	669	1,186	1,601	2,000	2,004	1,989	2,000	1,999	11.89	8.95	6.54	11.52	12.56	12.30	12.69	6.73	8.61	9.39	10.84	10.09	10.27	11.13	10.33
10/31 21:40	1,708	861	841	1,929	1,966	2,000	2,014	1,014	1,376	1,622	1,975	1,749	1,802	1,984	1,970	10.74	7.68	6.79	11.58	12.42	13.23	14.18	7.61	9.14	9.57	10.21	9.19	9.62	10.53	9.91
10/31 21:50	1,810	953	616	1,761	1,931	1,996	1,984	922	1,602	1,710	2,009	1,861	1,744	2,002	1,999	11.41	8.06	6.16	10.89	12.10	12.61	13.26	7.41	9.62	9.46	10.66	9.53	9.62	10.36	10.23
10/31 22:00	1,618	764	682	1,875	2,016	2,003	2,005	1,096	1,470	1,575	2,000	1,815	1,855	2,000	2,004	10.02	6.88	5.94	11.52	12.29	13.12	13.66	8.11	9.08	9.36	10.41	9.52	9.65	10.55	10.61
10/31 22:10	482	146	256	694	728	787	710	406	675	643	676	696	800	741	718	10.50	7.55	8.64	10.67	11.93	12.39	13.13	8.74	9.29	9.95	10.83	10.36	10.28	11.13	11.30
10/31 22:20	-24	-22	-26	-26	-25	-26	-25	-25	-12	-20	-34	-27	-27	-26	-21	12.02	9.25	10.45	10.65	10.58	11.24	11.64	8.85	8.73	9.10	10.89	9.94	10.49	10.93	9.92
10/31 22:30	809	225	647	1,127	1,292	-23	924	426	658	791	1,221	1,127	1,121	1,249	1,183	10.28	6.65	8.75	10.94	12.86	11.59	10.40	7.17	8.02	8.44	9.99	9.37	9.57	10.18	9.98
10/31 22:40	962	261	1,129	1,883	1,774	-23	1,481	436	890	1,177	1,603	1,399	1,313	1,593	1,644	7.76	4.63	8.09	11.30	10.99	11.36	10.75	5.50	7.47	8.02	8.92	8.48	8.37	8.93	8.95
10/31 22:50	1,059	354	1,236	1,841	1,843	-22	1,492	161	666	793	1,375	1,121	1,146	1,535	1,600	8.46	5.35	8.67	11.41	11.58	11.48	11.24	4.56	7.02	7.21	8.25	7.83	8.07	8.92	8.85
10/31 23:00	1,014	369	1,090	1,717	1,892	-23	1,743	274	842	962	1,561	1,414	1,375	1,839	1,893	8.28	5.39	8.15	10.64	11.63	11.90	11.74	4.97	7.49	7.61	8.61	8.56	8.60	9.47	9.60
10/31 23:10	1,020	442	1,376	1,788	1,790	-22	1,946	330	1,270	1,237	1,829	1,354	1,262	1,553	1,596	7.83	5.69	9.03	11.02	11.20	12.88	12.77	5.42	8.56	8.23	9.50	8.37	8.57	8.78	8

11/1 2:10	1,826	1,083	1,005	1,470	1,878	-18	1,798	1,934	1,806	2,000	2,000	2,000	1,998	2,000	1,999	10.83	8.50	7.73	10.59	11.45	12.11	12.76	10.39	10.11	11.07	12.55	11.34	11.09	11.94	11.62
11/1 2:20	1,781	1,031	824	1,443	1,741	-19	1,752	1,547	1,462	1,826	2,000	2,000	2,000	2,000	1,998	10.58	8.21	7.38	10.35	10.76	11.42	12.24	9.13	9.09	10.17	11.85	11.08	10.80	11.77	10.89
11/1 2:30	1,772	1,177	1,022	1,717	1,866	-19	1,978	1,426	1,377	1,295	1,997	1,992	2,000	2,001	2,000	10.73	9.02	7.50	11.11	11.22	11.96	13.08	8.70	8.86	8.72	10.66	10.55	11.17	11.36	11.44
11/1 2:40	1,562	758	589	1,587	1,702	-19	1,770	1,085	1,558	1,627	1,971	1,967	1,999	2,001	1,999	9.63	7.39	6.07	10.56	10.48	11.64	11.72	7.87	9.50	9.57	10.51	10.05	10.83	11.78	11.45
11/1 2:50	1,383	577	486	1,438	1,542	-18	1,688	1,600	1,775	1,849	1,998	2,001	1,999	2,000	1,999	8.99	6.75	5.44	9.99	9.89	10.81	11.53	9.05	10.02	10.21	11.24	10.46	11.29	12.30	11.70
11/1 3:00	953	356	439	1,490	1,540	-19	1,875	1,448	1,521	1,644	1,978	2,004	1,999	2,001	2,000	8.08	5.40	5.43	9.94	10.18	11.20	12.04	8.52	9.29	9.56	10.46	11.24	10.70	12.64	12.12
11/1 3:10	1,020	263	561	1,636	1,621	-19	1,828	1,317	1,775	1,811	2,017	1,999	2,000	2,000	1,999	8.37	4.93	5.80	10.19	10.31	10.74	11.55	8.34	9.98	10.18	11.40	10.33	10.99	12.12	12.20
11/1 3:20	1,374	463	582	1,639	1,730	-19	1,790	1,170	1,876	1,798	1,998	2,001	1,999	2,000	1,999	9.27	6.27	5.99	10.20	10.85	11.42	11.75	8.09	10.37	9.84	11.18	10.36	10.86	12.04	12.12
11/1 3:30	1,427	546	985	1,896	1,735	-19	1,819	1,445	1,755	1,892	1,999	1,998	1,976	2,001	2,000	9.21	6.50	7.47	11.51	10.77	10.61	11.69	8.66	9.98	10.08	11.77	10.68	10.59	12.11	11.67
11/1 3:40	1,635	624	1,103	1,905	1,840	-18	1,849	1,630	1,881	1,891	1,999	1,999	2,015	2,001	1,999	10.09	6.77	7.79	11.81	11.31	11.45	11.61	8.88	10.48	10.12	11.60	10.61	10.92	12.02	11.80
11/1 3:50	1,356	487	1,141	1,954	1,935	-19	1,889	1,684	1,962	1,999	1,999	1,999	2,000	2,000	1,999	9.45	6.32	7.83	11.83	11.86	12.46	11.87	9.29	10.75	10.95	12.04	11.05	11.68	12.83	12.57
11/1 4:00	1,398	464	560	1,753	1,851	-19	1,874	2,012	1,968	2,001	2,000	1,999	2,000	2,001	1,999	9.51	5.87	6.39	10.72	11.56	12.30	11.79	10.30	11.38	11.22	12.75	11.83	11.25	12.78	12.70
11/1 4:10	1,448	676	379	1,812	1,930	-19	1,860	1,999	1,999	1,999	1,999	2,000	1,999	2,000	1,999	9.27	6.80	7.32	11.03	11.85	11.83	11.68	10.57	11.89	12.15	13.44	11.68	12.07	13.17	12.52
11/1 4:20	1,351	420	941	1,825	1,866	-19	1,881	1,960	2,000	1,999	1,999	1,999	1,999	2,000	1,999	8.97	6.03	7.25	11.05	11.44	11.25	11.58	10.05	11.32	11.24	12.68	11.53	11.18	12.63	12.36
11/1 4:30	1,326	301	617	1,577	1,522	-19	1,673	1,888	2,000	2,000	1,999	2,000	2,001	2,000	1,999	8.91	5.09	5.90	10.03	10.21	10.58	10.84	9.71	11.24	11.03	12.04	11.09	11.35	12.13	12.04
11/1 4:40	1,483	570	556	1,604	1,702	-19	1,839	2,012	2,000	2,000	1,999	2,000	1,999	2,000	1,999	10.21	6.62	5.66	10.53	10.88	12.04	11.83	10.80	11.73	11.63	12.53	11.47	11.58	13.09	12.29
11/1 4:50	1,695	863	587	1,617	1,884	-19	1,986	1,999	2,000	2,000	1,999	1,999	2,000	2,000	1,999	10.48	7.35	5.93	10.22	11.88	12.57	12.66	12.26	12.56	12.27	13.43	12.75	12.10	13.30	12.63
11/1 5:00	1,191	330	473	1,442	1,708	-19	1,898	2,000	1,999	2,000	2,000	2,000	2,001	1,999	1,999	9.08	5.76	5.55	9.63	10.87	12.46	12.65	11.98	12.76	12.62	14.03	12.58	12.43	13.91	12.69
11/1 5:10	1,206	437	735	1,844	1,965	-19	1,998	2,000	2,001	2,000	2,000	2,000	2,000	2,000	2,000	8.69	5.98	6.93	11.51	12.86	13.16	13.82	13.68	13.98	13.66	14.12	13.02	12.47	12.98	11.91
11/1 5:20	1,387	637	1,101	1,965	1,993	-18	1,999	2,000	2,000	2,000	2,000	1,999	2,000	2,000	2,000	9.68	7.10	7.83	12.09	12.58	14.37	13.82	13.06	13.47	12.99	13.87	12.30	12.51	12.70	11.80
11/1 5:30	1,671	1,059	1,461	1,994	2,007	-19	1,999	2,000	2,000	1,999	2,000	1,995	1,942	1,964	1,597	10.93	9.03	9.74	12.89	14.25	15.11	15.56	12.98	13.01	12.63	13.21	11.09	10.92	10.97	9.47
11/1 5:40	1,874	1,362	1,501	1,919	1,998	-19	1,999	1,985	1,939	1,816	1,998	1,467	1,297	1,268	1,123	11.85	10.05	9.75	12.55	13.63	14.53	15.17	11.58	11.14	10.08	11.34	8.95	8.53	8.51	8.23
11/1 5:50	1,747	1,199	1,430	2,013	2,000	-20	2,000	1,726	1,943	1,752	1,934	1,108	1,381	1,285	1,111	10.94	8.98	9.44	12.61	14.29	15.54	16.25	10.29	10.84	9.79	10.26	8.08	8.71	8.62	8.21
11/1 6:00	1,781	1,076	1,709	2,005	2,000	-20	2,000	1,832	1,842	1,682	1,988	1,160	922	1,024	1,342	11.18	8.85	10.66	13.33	14.61	15.89	15.26	10.13	10.24	9.83	10.82	8.14	7.47	7.79	8.40
11/1 6:10	1,911	1,400	253	1,964	1,999	-20	1,975	1,777	1,804	1,508	1,711	1,323	1,137	1,379	1,516	12.67	9.80	10.77	13.10	13.45	14.52	13.52	10.22	10.21	9.18	9.67	8.77	8.13	8.81	9.05
11/1 6:20	1,498	1,000	4	1,841	1,964	-20	1,947	1,332	1,214	1,529	1,874	1,855	1,696	1,944	1,963	10.51	8.53	8.37	11.62	12.40	13.48	13.12	8.85	8.62	9.28	10.31	10.28	9.78	11.14	11.36
11/1 6:30	1,661	1,216	0	1,940	2,007	-20	2,004	1,475	1,676	1,679	1,956	1,769	1,616	1,986	1,997	11.07	8.82	9.62	12.71	12.62	13.86	12.60	9.19	9.93	9.79	10.71	10.16	9.24	11.22	11.26
11/1 6:40	1,653	1,061	0	1,919	1,947	-20	1,904	1,584	1,284	1,333	1,942	1,692	1,509	1,893	1,946	11.06	8.63	10.31	12.74	12.48	12.94	12.38	9.30	8.66	8.58	10.43	9.49	8.84	10.32	10.68
11/1 6:50	1,772	1,324	0	1,959	1,962	-20	1,981	1,180	1,360	1,384	1,838	1,343	1,508	1,891	1,989	11.31	9.24	10.02	12.89	12.79	13.75	13.30	8.23	8.80	8.85	9.88	8.60	8.98	10.17	10.23
11/1 7:00	1,582	1,025	0	1,816	1,929	-20	1,954	1,378	1,605	1,552	1,961	1,492	1,561	1,725	1,854	10.25	8.24	8.01	11.39	11.70	13.30	13.43	8.69	9.57	9.29	10.42	9.04	9.10	9.70	9.91
11/1 7:10	1,385	767	0	1,740	1,844	-20	1,909	1,560	1,762	1,715	1,953	1,383	1,839	1,777	1,757	9.54	7.49	8.03	11.58	11.28	12.16	12.75	9.13	10.58	9.84	10.23	8.61	9.84	9.74	9.69
11/1 7:20	1,229	786	0	1,719	1,795	-20	1,902	1,479	1,548	1,497	1,561	968	1,194	1,030	1,718	8.99	7.82	8.64	11.47	11.66	12.35	12.47	9.13	9.57	9.04	9.09	7.54	8.24	7.78	9.43
11/1 7:30	1,315	780	-2	1,784	1,843	-19	1,949	1,473	1,248	1,436	1,768	1,364	1,444	1,511	1,418	9.32	7.20	7.72	11.73	11.39	12.18	13.25	9.08	8.86	8.84	9.56	8.82	8.90	8.86	8.72
11/1 7:40	1,450	703	1,078	1,863	1,958	1,311	1,968	1,437	1,457	1,367	1,865	1,501	1,225	1,497	1,175	10.15	7.11	8.15	12.31	12.81	13.32	13.60	9.06	8.96	8.86	10.25	9.12	8.27	8.91	8.22
11/1 7:50	1,490	797	1,213	1,947	1,982	2,009	2,006	1,497	1,378	1,284	1,599	1,290	963	1,484	1,522	9.92	7.58	8.63	12.38	12.78	13.37	14.54	9.19	9.17	8.83	9.31	8.52	7.60	9.21	9.14
11/1 8:00	1,470	813	1,289	1,946	2,003	2,000	2,000	1,473	1,226	1,259	1,867	1,660	1,791	1,947	1,897	10.13	7.64	8.88	12.92	13.06	13.57	13.98	9.15	8.95	8.49	10.24	9.68	10.02	11.05	10.98
11/1 8:10	1,806	1,224	811	2,021	2,000	2,000	2,000	1,587	1,637	1,689	2,006	1,912	1,876	1,959	1,995	11.46	9.39	10.76	14.53	13.76	15.50	15.18	9.95	10.17	10.22	12.40	11.48	10.42	11.71	11.53
11/1 8:20	1,648	1,274	188	1,982	1,999	2,000	1,999	1,776	1,895	1,998	2,000	2,001	1,960	2,013	1,998	10.97	9.83	11.47	14.18	14.35	15.04	15.57	10.60	11.40	11.66	12.26	11.69	11.63	13.08	12.31
11/1 8:30	1,687	1,011	213	2,011	1,998	2,000	2,001	1,925	1,889	1,906	1,999	1,998	1,994	1,999	2,002	11.52	8.96	11.08	14.15	13.45	14.55	14.64	10.99	11.03	11.37	13.57	12.26	11.85	13.22	13.32
11/1 8:40	1,772	-10 [-11059]	2,002	2,000	2,000	1,999	1,999	1,812	2,016	1,992	2,000	2,001	1,999	2,000	2,001	11.37	9.79	-11059	14.54	14.58	15.62	15.55	10.81	12.06	11.95	13.63	12.61	11.61	13.43	13.38
11/1 8:50																														

11/1 12:00	1,486	824	1,488	2,007	2,000	2,000	2,000	1,193	1,037	1,403	1,937	1,672	1,944	2,000	2,000	9.87	7.62	10.28	13.16	14.68	14.47	13.65	8.42	7.88	9.54	12.07	10.03	11.05	12.97	13.65
11/1 12:10	1,709	838	1,290	1,927	1,999	1,999	2,000	1,418	1,538	1,781	2,000	1,939	1,823	2,000	1,999	11.47	7.62	9.39	12.47	14.54	15.02	14.21	9.23	10.34	11.10	12.61	11.40	11.66	13.14	13.84
11/1 12:20	1,554	758	1,378	2,003	2,000	2,000	1,999	1,910	1,926	2,010	2,000	1,995	860	2,000	2,000	10.47	7.27	9.29	13.01	15.28	15.98	15.72	11.28	11.87	13.19	14.87	12.68	12.71	13.40	13.09
11/1 12:30	1,735	1,140	1,596	2,000	2,000	2,001	2,000	1,721	1,865	1,864	1,999	2,008	1,998	2,000	1,999	11.50	9.25	9.98	13.42	14.85	15.76	16.04	10.07	10.82	10.70	12.01	11.50	11.60	12.21	12.17
11/1 12:40	1,455	778	1,072	1,944	1,999	1,999	1,998	1,558	1,640	1,950	2,000	1,996	1,997	1,999	1,999	10.52	7.67	8.53	11.85	13.34	13.54	14.24	9.57	9.73	10.62	11.70	11.00	10.86	12.23	12.34
11/1 12:50	1,600	937	1,407	2,000	2,000	1,999	2,001	1,640	1,189	1,860	1,999	1,987	2,000	2,001	2,000	10.92	8.45	9.76	12.81	13.62	13.76	13.57	9.54	8.16	10.43	11.97	10.83	10.49	12.10	12.11
11/1 13:00	1,705	980	1,459	1,990	1,999	1,999	1,999	1,728	1,432	1,933	2,000	2,000	1,999	1,999	2,000	11.11	7.83	10.19	12.08	14.03	13.88	13.03	9.40	9.09	10.82	12.44	11.43	11.06	11.72	12.04
11/1 13:10	1,352	766	1,306	1,942	1,999	2,000	1,999	1,688	1,352	1,794	2,000	1,965	1,894	1,999	1,999	9.90	7.75	9.50	12.24	13.74	13.16	12.76	9.57	8.79	10.02	11.85	10.83	10.23	11.07	11.43
11/1 13:20	1,459	814	794	1,778	1,983	1,993	2,000	1,368	1,589	1,841	1,998	1,973	1,892	1,995	1,947	10.07	7.88	7.33	11.06	12.19	12.01	11.74	8.67	9.82	10.62	12.16	10.48	10.35	11.04	10.31
11/1 13:30	1,370	722	654	1,491	1,864	1,982	1,959	1,644	1,635	1,770	1,999	1,973	1,862	1,998	2,014	10.05	7.56	6.76	10.25	11.56	11.96	11.65	9.76	10.11	10.36	11.86	10.45	10.24	11.31	10.90
11/1 13:40	1,223	552	725	1,385	1,687	1,919	1,814	1,099	1,351	1,705	1,999	1,750	1,486	1,835	1,822	9.63	6.65	7.40	10.11	11.10	11.63	11.78	7.91	8.94	10.04	11.07	9.77	9.07	10.14	9.99
11/1 13:50	1,276	728	543	1,431	1,707	1,824	1,650	978	1,116	1,437	2,000	1,646	1,358	1,500	1,424	9.56	7.77	6.07	10.01	10.85	11.19	10.74	7.69	8.37	9.25	11.24	9.30	8.98	9.18	8.69
11/1 14:00	1,156	559	273	1,386	1,486	1,579	1,559	999	1,440	1,542	2,000	1,697	1,607	1,868	1,747	8.94	6.71	4.36	9.70	9.67	10.04	10.11	7.72	9.12	9.35	11.01	9.51	9.42	10.45	10.00
11/1 14:10	1,000	447	339	1,118	1,202	1,394	1,313	1,334	1,674	1,943	2,000	1,920	1,787	1,997	1,952	8.35	6.36	5.47	8.95	9.03	9.58	9.35	8.95	10.12	11.11	13.00	10.45	9.98	11.52	10.87
11/1 14:20	1,148	535	531	1,248	1,472	1,603	1,467	1,564	1,908	1,928	2,000	1,900	1,804	1,982	1,796	8.38	6.73	6.46	9.32	10.07	10.42	10.40	9.28	11.05	11.39	12.33	10.21	9.97	10.93	9.78
11/1 14:30	933	420	252	1,185	1,563	1,456	1,424	1,590	1,763	1,846	2,000	1,890	639	1,999	2,012	8.39	6.29	4.45	9.42	10.03	9.90	10.14	9.82	10.40	10.72	11.96	10.59	10.07	11.44	11.30
11/1 14:40	1,120	457	740	1,583	1,602	1,632	1,388	1,462	1,932	1,942	1,999	1,951	1,978	1,999	1,938	8.79	5.95	6.82	10.75	10.81	10.60	10.59	9.12	10.77	10.65	12.19	10.61	10.51	11.17	10.78
11/1 14:50	911	345	725	1,525	1,557	1,610	1,638	1,648	1,956	1,914	2,000	1,979	751	1,988	2,016	8.26	5.40	6.85	10.42	10.22	10.54	10.84	9.59	11.13	10.76	12.54	11.08	10.72	11.35	11.25
11/1 15:00	791	264	859	1,454	1,472	1,572	1,403	1,607	2,008	1,923	2,000	2,008	1,885	1,999	1,998	7.40	5.19	7.37	10.00	10.04	10.61	10.37	9.56	10.86	10.91	12.08	10.78	10.56	11.41	11.13
11/1 15:10	675	216	801	1,364	1,296	1,174	1,160	871	1,918	1,831	1,999	1,973	1,930	1,915	1,849	6.76	4.56	7.14	9.60	9.69	9.06	9.44	7.24	10.68	10.33	11.34	10.51	10.53	10.79	9.96
11/1 15:20	995	407	1,040	1,346	1,451	1,382	951	646	1,718	1,609	1,974	1,889	1,787	1,921	1,988	8.18	5.55	8.21	9.31	9.72	9.79	8.85	6.63	9.62	9.43	10.42	10.06	9.77	10.56	10.43
11/1 15:30	881	342	1,147	1,609	1,835	1,808	1,658	629	1,740	1,677	1,970	1,968	1,800	1,973	1,794	7.52	4.95	8.34	10.23	11.30	11.33	11.62	6.76	9.83	9.73	10.85	10.26	9.69	10.75	9.73
11/1 15:40	1,284	678	1,605	1,943	1,911	1,926	1,895	1,160	1,795	1,852	1,999	1,838	1,924	1,852	1,860	9.10	6.69	10.13	11.93	11.50	12.14	11.99	8.33	10.24	10.10	11.43	9.86	10.41	10.09	10.03
11/1 15:50	1,800	1,432	1,775	1,858	1,655	1,768	1,645	1,180	1,836	1,996	1,997	2,017	1,948	1,990	1,668	12.69	11.46	13.22	13.54	13.79	12.51	12.21	11.66	13.67	15.11	15.80	15.57	13.68	13.74	13.08
11/1 16:00	1,997	2,002	2,001	2,001	2,009	2,006	2,007	2,010	2,000	2,000	2,001	1,971	1,886	2,000	2,015	15.13	16.37	16.41	16.76	18.00	17.31	19.13	14.51	15.41	15.46	16.08	13.77	14.06	14.70	15.76
11/1 16:10	2,001	1,999	2,000	2,000	1,996	1,988	2,000	1,999	1,999	2,000	2,000	2,000	779	2,000	2,000	15.84	14.67	15.75	16.08	17.00	15.94	17.99	13.89	15.02	15.05	15.00	14.55	15.52	14.78	14.10
11/1 16:20	1,999	2,000	2,000	1,999	2,004	2,008	2,000	2,000	2,000	1,999	1,999	2,000	2,000	2,000	2,000	15.17	15.31	16.68	16.30	17.32	15.62	17.82	15.99	15.05	15.82	16.12	13.98	15.05	15.87	15.39
11/1 16:30	2,001	1,983	1,998	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,999	2,000	16.17	14.46	15.99	15.62	17.11	16.50	17.19	14.67	14.19	13.81	14.75	13.59	12.98	13.89	14.37
11/1 16:40	1,998	1,995	2,000	1,998	2,000	2,001	2,000	2,000	2,000	2,000	2,001	1,998	657	2,000	1,999	16.67	15.28	17.15	15.91	17.47	17.28	16.87	14.36	13.19	13.73	15.22	12.96	12.89	13.11	13.48
11/1 16:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,975	1,999	1,992	1,977	2,008	2,000	1,999	18.56	16.37	17.39	17.21	19.55	18.73	18.65	13.33	11.61	13.09	12.78	11.97	11.96	13.04	13.54
11/1 17:00	2,000	1,999	2,001	1,990	1,999	2,000	2,000	1,999	1,886	1,989	2,007	1,870	1,888	1,988	1,999	15.96	15.81	16.61	14.81	17.16	17.08	17.29	11.53	10.65	10.52	11.58	10.56	10.62	11.63	11.60
11/1 17:10	1,998	2,000	2,000	2,009	2,000	2,000	2,000	2,000	1,857	1,988	1,988	1,962	882	1,975	2,000	16.19	15.99	16.04	15.64	17.55	17.78	17.64	11.42	10.54	10.68	11.18	10.67	10.08	11.06	11.89
11/1 17:20	2,000	2,000	2,000	2,000	2,000	1,999	2,000	1,998	1,858	2,006	2,010	1,969	-27	1,928	1,999	15.95	14.99	16.43	15.92	16.95	16.50	17.16	11.45	10.91	11.00	11.88	10.94	10.50	10.80	11.90
11/1 17:30	1,999	1,999	2,000	2,000	2,000	2,000	2,000	1,999	1,936	2,001	1,998	1,973	-24	2,016	1,976	15.82	15.32	15.88	15.53	17.29	16.81	17.34	11.29	10.88	12.16	11.78	10.66	11.26	11.77	10.81
11/1 17:40	2,000	2,001	2,000	1,995	2,000	1,583	2,000	1,964	1,978	1,998	1,999	2,011	-23	1,911	1,956	16.44	14.68	15.48	16.07	17.36	16.38	17.37	11.86	11.54	12.22	12.14	11.58	11.21	11.50	11.05
11/1 17:50	2,000	1,999	1,994	2,004	1,999	1,099	2,000	1,986	1,943	2,000	1,999	2,000	-23	1,947	1,990	15.10	14.30	14.41	14.50	16.07	15.32	16.44	12.17	12.08	12.73	12.77	12.16	10.80	11.52	11.85
11/1 18:00	1,999	2,000	2,002	1,992	1,999	2,000	1,999	1,999	2,000	1,998	1,999	2,001	-23	2,006	1,999	15.61	13.79	15.74	15.49	16.26	14.64	16.36	13.16	13.01	13.36	14.40	12.88	12.52	13.03	14.19
11/1 18:10	1,997	1,960	1,998	1,999	1,999	2,000	2,000	2,000	2,000	2,000	2,000	1,999	-22	1,987	1,996	15.28	13.26	14.97	14.68	16.29	15.20	15.54	12.51	12.35	13.29	13.54	12.06	12.89	12.62	12.87
11/1 18:20	2,000	2,019	2,001	2,006	1,997	2,000	1,999	1,998	1,999	2,000	1,999	2,000	-22	1,991	2,003	14.69	14.37	15.60	14.89	15.56	15.40	16.25	12.86	12.39	12.59	12.93	12.36	11.78	12.05	13.16
11/1 18:30	1,999	1,999	1,999	2,001	2,002	2,000	2,001	2,000	2,001	1,999	2,000	1,996	-22	2,000	1,999	15.2														

11/1 21:50	1,917	2,014	1,949	1,902	1,885	1,913	1,861	1,986	1,979	2,002	2,017	1,952	-19	1,967	2,017	14.54	15.20	15.64	15.01	14.58	15.39	14.10	13.80	13.40	16.50	15.12	12.75	13.04	12.65	13.49
11/1 22:00	2,013	1,973	1,971	1,969	1,976	1,976	1,711	2,014	2,015	1,922	2,000	1,916	-20	1,893	1,999	15.86	15.67	15.08	14.95	15.08	15.32	13.08	14.72	14.19	15.01	14.44	13.01	11.88	12.06	13.62
11/1 22:10	1,573	1,587	1,777	1,585	1,543	1,512	1,570	1,603	1,609	1,606	1,574	1,586	-20	1,551	1,422	15.08	14.70	13.38	13.25	13.45	14.70	14.99	13.77	14.43	13.83	14.87	12.62	11.41	12.17	11.26
11/1 22:20	-32	-33	-30	-38	-36	-35	-36	-38	-22	-31	-36	-38	-21	-38	-31	12.04	13.44	12.65	12.19	13.44	13.09	13.46	14.31	14.64	13.20	14.28	13.09	12.19	10.80	10.09
11/1 22:30	127	162	208	153	152	124	122	150	165	159	165	153	-18	148	139	12.14	12.90	14.23	13.50	14.17	13.34	12.85	14.56	15.08	14.33	13.30	12.52	11.49	11.72	11.84
11/1 22:40	1,988	1,728	1,789	1,842	2,012	1,973	1,905	2,014	2,017	2,013	2,015	2,017	-19	1,948	1,912	15.48	14.09	13.46	13.87	17.00	15.55	15.82	13.58	13.47	13.87	14.23	13.83	14.18	13.48	13.26
11/1 22:50	1,941	2,017	1,983	1,684	1,976	709	2,000	1,999	1,998	1,977	1,984	1,992	-19	1,993	2,011	14.88	16.28	14.63	12.92	15.78	15.29	17.10	13.61	13.01	12.56	13.73	13.53	12.53	13.41	13.71
11/1 23:00	1,956	1,957	1,920	1,964	2,005	1,017	2,000	2,000	1,999	1,999	1,981	1,974	-19	2,000	1,999	14.67	15.20	14.95	14.96	16.22	16.92	16.44	13.12	13.06	14.05	13.77	12.65	13.22	13.42	13.97
11/1 23:10	2,019	2,003	2,001	2,000	1,999	1,638	1,999	2,000	1,970	1,904	1,976	1,992	-19	2,001	1,990	16.02	16.18	17.04	16.54	17.08	17.56	17.91	13.97	12.63	11.95	13.22	13.05	13.31	14.41	13.75
11/1 23:20	1,983	2,015	1,997	1,997	2,000	45	2,000	2,000	2,000	2,015	1,984	1,999	-19	2,000	1,995	16.60	15.30	16.46	16.31	17.94	16.33	19.01	12.94	12.33	13.53	14.01	13.81	14.21	15.59	14.54
11/1 23:30	1,994	1,989	2,000	1,988	1,967	-26	2,000	1,999	1,960	1,953	2,000	1,995	-19	1,992	1,999	15.72	15.86	17.32	16.97	16.91	16.39	16.77	13.24	12.76	13.29	14.35	12.44	13.55	14.40	14.56
11/1 23:40	2,005	1,973	1,981	1,831	1,971	-23	2,000	1,988	1,978	2,000	2,000	1,991	-19	2,008	1,995	16.60	15.46	15.50	14.05	16.31	16.82	17.51	13.39	12.94	13.60	14.62	12.91	13.02	13.82	13.72
11/1 23:50	1,982	1,943	2,018	1,923	1,991	-22	1,998	2,010	2,016	1,967	1,970	1,996	-19	2,001	1,895	15.46	14.29	15.82	14.58	16.66	15.96	16.02	13.83	13.96	12.70	13.32	13.18	13.86	14.24	12.81
11/2 0:00	2,015	2,009	1,991	2,019	2,007	-22	1,990	2,000	2,000	1,991	2,009	2,007	-19	2,000	2,013	15.51	15.93	18.06	16.81	17.05	16.65	16.25	14.77	14.12	13.47	14.91	14.80	13.54	13.14	14.21
11/2 0:10	2,002	2,000	2,000	1,998	1,998	-23	2,009	2,000	1,994	2,000	2,002	2,000	-19	2,000	2,000	16.17	16.27	18.32	16.13	18.37	17.25	17.12	15.16	13.81	14.34	15.46	14.46	13.60	13.62	15.96
11/2 0:20	533	544	769	614	584	-22	573	577	580	551	544	524	-19	574	564	14.75	15.36	17.27	15.16	15.69	16.28	16.23	14.61	12.92	13.74	15.22	12.85	12.56	13.71	14.26
11/2 0:30	-26	-28	-34	-34	-34	-22	-32	-33	-27	-27	-30	-32	-18	-30	-25	15.12	15.03	18.12	15.72	16.08	16.35	16.90	14.84	15.12	14.75	15.38	14.16	14.18	13.85	14.76
11/2 0:40	1,474	1,501	1,459	1,485	1,488	-22	1,479	1,469	1,472	1,477	1,473	1,475	-18	1,476	1,488	16.64	17.36	19.60	16.61	17.66	18.42	18.06	16.86	15.62	16.96	16.48	14.44	15.43	15.66	14.97
11/2 0:50	2,007	1,980	2,001	2,014	2,014	497	1,994	1,999	2,000	2,000	1,998	1,997	-19	2,000	1,999	16.67	15.63	17.29	17.50	19.01	17.47	17.99	16.69	15.04	16.26	15.69	15.53	15.43	14.31	15.12
11/2 1:00	1,986	2,013	1,998	1,970	1,999	1,735	1,995	2,000	1,999	2,000	2,000	2,001	-20	2,000	1,999	15.84	17.02	18.17	15.86	18.14	18.03	17.16	16.76	15.69	16.57	16.33	15.36	15.37	15.10	17.12
11/2 1:10	1,990	1,997	1,997	2,009	1,999	1,866	2,003	1,999	1,994	1,999	1,996	1,999	-19	2,001	1,999	15.87	16.21	17.83	17.06	18.05	18.38	17.03	17.36	16.75	17.40	17.12	16.46	15.46	16.16	15.70
11/2 1:20	1,986	1,971	1,999	1,999	1,968	1,873	2,004	2,000	2,000	1,999	2,004	2,000	-19	2,000	2,001	16.44	15.22	18.12	16.73	16.59	16.25	16.46	17.07	16.39	16.42	17.81	15.65	14.22	16.29	16.18
11/2 1:30	1,986	1,975	1,971	1,986	1,949	1,934	1,930	2,000	2,001	2,001	1,997	2,000	-19	2,001	1,995	17.17	15.26	16.37	17.97	16.98	17.74	16.93	16.39	15.09	15.66	16.83	15.44	14.04	14.95	15.10
11/2 1:40	1,975	2,008	1,999	1,940	1,918	1,969	1,994	1,999	1,999	1,999	1,954	1,999	-23	2,000	2,002	15.82	15.52	17.23	15.42	16.61	18.05	16.40	16.95	14.49	15.68	17.14	16.08	13.79	15.22	15.05
11/2 1:50	1,943	1,995	2,010	1,994	2,005	1,854	1,975	2,000	2,000	1,966	1,999	1,999	-30	2,000	1,997	15.32	15.57	17.47	16.99	18.09	16.12	16.08	17.61	15.64	18.45	16.44	17.22	14.87	14.79	15.54
11/2 2:00	1,969	1,985	1,993	2,005	1,981	1,946	1,875	1,999	2,000	2,017	2,001	1,999	-4	2,001	1,986	15.35	15.62	17.37	16.56	17.83	17.20	15.38	17.01	15.59	16.77	16.54	15.32	14.90	16.13	15.04
11/2 2:10	1,962	1,957	1,972	1,968	1,967	632	2,013	2,000	1,999	2,000	2,000	1,999	-4	1,994	2,014	15.31	15.08	16.59	15.60	16.85	18.02	17.33	15.26	14.30	14.79	15.72	14.13	12.84	14.24	14.70
11/2 2:20	2,003	1,991	2,014	2,010	1,990	636	2,003	1,998	2,000	1,999	1,987	1,996	-4	1,998	1,988	16.14	15.97	16.48	16.48	18.33	15.81	17.25	15.47	13.70	15.13	14.16	14.18	13.56	13.91	14.79
11/2 2:30	1,967	1,991	2,000	1,996	1,947	1,857	2,002	1,999	1,998	2,000	2,011	1,987	-5	2,006	1,974	15.83	15.88	17.01	16.41	16.90	16.82	17.48	14.56	14.06	14.49	14.69	13.68	12.60	14.33	13.46
11/2 2:40	1,978	653	1,968	1,886	1,845	1,871	1,924	1,968	1,878	1,945	1,893	1,931	-4	1,804	1,904	15.25	13.81	15.90	14.80	15.17	16.32	16.02	12.92	12.66	12.97	12.74	12.78	11.47	11.90	12.71
11/2 2:50	1,507	1,699	1,849	1,767	1,727	1,834	1,748	1,885	1,623	1,941	1,849	1,618	-4	1,650	1,453	12.39	13.24	14.42	14.12	14.23	15.34	14.45	11.92	11.01	12.73	12.67	11.04	10.60	11.47	10.51
11/2 3:00	1,516	1,515	1,748	1,458	1,682	1,731	1,474	1,951	1,929	1,612	1,786	1,483	-4	1,742	1,441	12.68	12.23	14.18	12.39	13.63	14.21	12.90	12.04	12.61	10.80	12.57	10.56	10.72	12.05	10.94
11/2 3:10	1,609	1,587	1,717	1,571	1,729	1,613	1,594	1,967	1,765	1,849	1,751	1,616	-5	1,778	1,614	12.89	12.22	13.52	12.88	14.14	13.31	13.46	12.18	11.41	11.97	12.16	10.88	11.95	12.03	11.60
11/2 3:20	1,599	1,556	1,658	1,719	1,589	1,661	1,688	1,898	1,790	1,617	1,535	1,657	-5	1,502	1,659	12.84	12.20	13.13	13.52	13.13	13.55	14.13	12.13	11.53	11.23	11.74	11.27	11.25	11.02	11.87
11/2 3:30	1,292	1,511	1,608	1,437	1,495	1,519	1,403	1,892	1,789	1,861	1,827	1,341	-4	1,418	1,413	11.57	12.17	12.93	12.19	12.75	12.92	12.68	12.03	11.66	12.17	12.77	10.27	10.99	10.84	11.21
11/2 3:40	1,286	1,446	1,608	1,456	1,618	1,506	1,549	1,887	1,863	1,974	1,944	1,827	-4	1,817	1,530	11.62	11.51	13.35	12.10	13.56	12.73	13.67	12.46	12.02	12.88	13.55	12.46	12.76	13.25	11.86
11/2 3:50	1,446	1,561	1,870	1,766	1,812	1,642	1,665	1,990	2,001	1,807	1,940	1,868	-5	1,717	1,710	13.24	12.18	15.62	14.25	14.96	14.37	13.64	13.15	13.19	12.97	14.46	13.06	12.43	12.51	12.55
11/2 4:00	1,768	1,920	1,997	2,011	2,007	1,988	2,014	2,016	1,949	1,992	1,983	2,008	-5	1,889	1,680	14.02	14.32	17.56	16.48	17.49	18.16	17.05	15.53	13.61	15.62	15.08	15.21	13.43	13.30	12.48
11/2 4:10	1,963	1,988	2,012	1,939	1,948	1,959	1,952	2,000	1,837	1,959	1,988	1,988	-5	1,947	2,011	15.75	15.83	17.63	16.27	16.96	17.83	16.16	14.24	13.36	15.86	14.38	14.37	14.60	14.34	15.36
11/2 4:20	1,943	1,976	2,000	2,000	2,000	1,989	2,009	2,000	1,973	1,898	1,985	1,957	-6	1,964	1,916	15.52	15.68	17.55	16.99											

11/2 7:30	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,996	2,001	2,000	1,998	1,999	2,000	2,000	2,000	17.33	17.87	18.97	18.71	20.82	20.33	21.01	16.56	16.74	17.84	16.75	15.30	15.01	16.43	17.03
11/2 7:40	2,000	2,000	2,000	2,000	1,999	2,000	2,000	2,001	1,999	1,999	2,000	2,000	1,999	2,000	2,000	18.54	19.03	18.80	18.65	20.46	20.98	21.14	18.68	16.84	19.07	19.67	16.57	15.96	16.01	19.74
11/2 7:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,002	1,999	2,000	1,999	2,000	1,998	2,000	1,999	17.60	18.72	19.08	17.87	18.82	20.52	21.53	19.64	17.51	18.48	17.75	16.32	18.06	18.08	16.56
11/2 8:00	2,000	2,000	2,000	2,000	1,999	2,000	2,000	1,992	1,999	1,999	2,000	2,000	2,000	2,000	2,000	19.43	18.76	20.21	20.59	21.52	21.70	22.38	17.94	17.67	18.37	19.13	17.19	15.76	16.83	16.99
11/2 8:10	2,000	2,000	2,000	1,999	1,999	2,000	2,000	2,000	2,000	1,999	2,000	2,001	1,516	2,000	2,000	19.30	19.41	20.88	20.57	20.63	20.81	21.61	18.53	18.07	18.16	18.74	17.62	16.34	17.75	17.04
11/2 8:20	2,000	2,000	2,000	1,999	1,999	2,000	2,000	2,000	2,000	2,000	1,999	1,989	-4	2,000	2,000	17.76	18.73	20.29	18.21	18.85	18.65	20.88	16.12	16.41	16.19	16.14	14.16	15.88	16.39	16.79
11/2 8:30	1,999	2,000	2,000	2,001	2,001	1,999	2,000	1,999	1,999	1,997	2,001	1,928	723	2,000	1,989	18.24	18.84	22.43	20.13	21.29	19.81	20.40	19.02	18.45	18.92	19.48	16.18	16.64	17.43	16.13
11/2 8:40	2,000	2,000	1,996	2,000	1,995	1,998	1,999	2,000	1,998	1,999	2,000	1,987	1,862	2,000	2,004	20.83	21.40	21.47	19.62	20.82	18.98	18.76	17.82	17.36	18.94	18.62	17.12	17.36	17.44	17.11
11/2 8:50	2,000	2,000	2,000	1,999	2,000	2,002	2,000	1,999	2,001	2,000	2,000	2,000	2,000	2,000	2,003	17.54	18.17	18.65	19.20	20.97	20.80	21.85	19.03	16.11	16.21	16.90	16.44	15.26	17.70	18.05
11/2 9:00	2,000	2,000	1,995	2,000	1,993	1,986	1,964	2,000	2,000	2,000	2,000	2,000	1,999	2,000	1,999	21.73	21.16	22.93	21.86	24.65	23.87	24.66	19.13	17.19	15.98	16.84	16.40	17.02	18.83	19.01
11/2 9:10	1,999	2,000	1,994	1,998	1,931	1,955	1,950	2,000	2,000	1,999	2,000	1,999	2,001	2,000	2,000	20.80	22.09	22.72	22.44	24.77	23.84	25.21	18.70	16.74	16.94	18.12	16.21	17.15	17.43	18.60
11/2 9:20	2,000	2,000	2,000	2,000	2,000	2,000	2,001	2,000	2,000	1,999	2,000	2,001	2,000	2,000	1,999	18.43	18.70	19.79	19.59	20.44	20.80	21.50	18.66	17.56	16.82	16.83	16.20	17.27	16.94	17.49
11/2 9:30	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,999	2,000	2,001	2,001	1,999	1,999	2,001	1,999	18.77	18.61	18.28	19.00	20.95	20.95	21.46	14.90	15.20	16.47	16.27	16.22	15.45	15.78	14.35
11/2 9:40	1,999	2,000	2,000	2,000	2,000	1,999	1,999	2,001	1,999	2,000	2,000	2,000	1,999	2,000	2,001	19.01	18.82	19.39	19.37	19.29	19.18	18.49	16.74	14.27	15.10	16.31	13.84	13.38	14.89	14.25
11/2 9:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,999	1,882	1,999	2,000	2,000	2,000	2,000	1,999	16.92	18.66	18.75	17.99	18.80	18.47	18.98	14.22	12.31	13.39	14.50	15.26	14.46	14.39	16.85
11/2 10:00	1,999	2,001	2,000	2,000	2,000	2,000	2,000	1,994	2,011	1,999	1,993	1,995	2,000	2,000	1,999	17.88	15.92	17.57	17.81	19.62	19.67	19.87	13.12	13.85	14.62	16.18	13.55	15.62	14.84	15.86
11/2 10:10	1,999	1,999	2,000	1,999	2,000	2,000	1,999	1,999	1,999	1,986	2,001	1,977	1,987	1,905	1,986	17.08	16.81	18.07	17.73	19.25	17.23	16.70	14.65	14.02	13.13	14.27	13.09	12.04	11.41	12.05
11/2 10:20	1,999	1,977	2,000	2,000	1,999	2,000	1,952	1,990	1,992	1,800	1,862	1,990	2,006	1,984	1,963	15.49	14.61	17.26	16.91	17.45	16.14	14.91	12.80	12.83	10.55	12.47	11.88	11.30	13.34	13.96
11/2 10:30	1,902	1,958	1,999	1,797	1,987	1,473	1,839	2,004	1,920	2,011	2,002	2,008	1,981	1,998	2,000	14.35	14.87	15.87	14.58	15.81	14.08	13.37	13.31	12.85	15.04	14.30	13.78	13.39	13.98	14.50
11/2 10:40	1,995	1,993	2,000	1,805	1,991	1,476	2,001	1,992	1,998	1,999	2,000	1,999	1,481	2,003	2,000	16.12	15.67	16.20	16.41	17.22	16.63	15.34	13.12	13.99	15.23	15.20	13.25	13.81	13.81	15.06
11/2 10:50	1,998	2,005	2,001	2,000	1,971	1,999	1,994	2,007	1,962	2,000	2,000	2,000	2,000	2,001	2,000	16.44	16.20	18.00	17.30	17.06	16.09	16.76	16.43	14.18	15.13	15.92	15.03	15.77	15.91	16.07
11/2 11:00	2,001	2,000	1,999	1,999	2,000	2,000	2,006	1,999	1,994	1,999	2,000	2,000	665	2,000	1,993	18.92	15.53	16.51	15.50	16.06	16.64	15.52	17.76	17.16	15.60	17.59	15.44	14.59	15.09	14.90
11/2 11:10	2,000	2,000	1,997	1,995	1,995	2,000	1,999	2,000	2,003	2,000	1,981	1,995	1,301	1,919	2,007	18.33	16.10	16.16	15.32	16.17	16.21	17.04	15.60	15.78	15.23	15.15	13.94	13.08	12.38	14.51
11/2 11:20	2,000	2,000	2,000	2,005	2,005	2,000	1,999	2,000	1,997	1,999	1,985	1,984	2,004	2,016	1,979	18.70	19.11	17.73	16.70	16.94	17.77	19.07	15.05	14.19	14.07	14.73	14.09	13.22	14.17	14.19
11/2 11:30	1,998	2,000	2,001	1,999	1,999	2,000	2,000	2,000	1,899	1,999	2,002	2,000	2,000	2,000	2,003	16.83	16.33	19.05	19.07	20.22	18.87	19.02	15.70	14.53	15.53	15.70	16.14	15.35	15.68	14.91
11/2 11:40	2,001	2,000	2,000	2,000	2,000	2,000	2,000	1,999	2,008	2,001	1,999	1,993	857	2,000	2,000	17.15	16.92	18.83	17.69	19.32	18.56	18.70	16.04	16.84	15.48	17.85	16.18	14.79	16.67	16.85
11/2 11:50	2,000	2,000	2,000	1,999	2,000	1,146	2,000	2,000	1,999	2,000	2,000	2,005	1,228	2,000	1,999	16.71	17.48	20.05	17.71	19.31	18.52	19.26	17.74	16.83	17.11	18.74	16.58	16.40	18.10	17.37
11/2 12:00	2,000	2,000	1,999	2,000	2,000	1,189	1,999	2,000	2,000	1,999	2,000	1,999	2,000	2,000	2,001	17.45	16.55	17.14	17.76	18.09	17.78	18.50	17.10	16.11	19.30	17.96	16.50	16.44	16.43	15.96
11/2 12:10	2,000	1,999	2,000	1,999	1,999	2,000	2,001	2,000	2,000	2,001	1,999	2,000	2,000	2,000	1,999	17.65	17.19	17.73	17.66	17.64	18.94	17.84	17.58	17.74	17.03	18.50	16.13	15.67	15.47	14.02
11/2 12:20	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,000	1,999	2,000	1,999	2,000	857	2,000	2,000	19.11	18.86	20.65	20.99	21.25	19.39	21.23	18.08	17.89	18.24	17.10	15.59	15.47	16.45	15.71
11/2 12:30	2,000	2,000	1,998	2,000	2,001	2,000	2,000	1,999	2,000	1,999	2,000	1,999	852	2,000	2,000	19.12	19.58	21.15	18.88	19.60	19.59	20.54	17.28	17.41	16.91	16.13	15.87	16.39	16.02	16.49
11/2 12:40	2,000	2,000	2,000	1,999	2,000	2,000	2,000	1,975	2,000	1,999	2,000	2,000	1,539	2,000	2,000	21.56	20.44	18.97	16.20	17.56	18.27	20.55	21.13	19.41	19.35	19.38	18.16	17.94	17.25	18.36
11/2 12:50	2,000	2,000	2,001	2,000	2,000	2,000	2,000	2,000	1,999	1,992	1,986	1,999	1,999	2,000	1,996	20.41	18.57	19.89	15.60	17.38	18.19	20.72	20.43	18.99	19.92	20.32	17.61	19.39	19.50	20.19
11/2 13:00	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,977	2,000	1,996	2,000	2,001	2,000	2,000	1,999	20.36	20.58	20.50	19.77	18.44	17.69	17.64	21.52	19.93	19.19	20.01	18.82	17.93	18.60	18.58
11/2 13:10	2,000	2,001	2,000	2,000	2,000	2,000	2,000	1,998	1,998	2,000	2,000	1,999	1,214	2,001	2,000	20.49	18.48	18.67	19.02	20.26	18.38	17.70	17.82	18.63	19.13	18.53	18.18	18.16	17.45	18.49
11/2 13:20	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	679	2,000	2,000	1,999	1,641	2,000	2,000	16.28	16.55	17.74	17.82	18.29	19.11	18.24	15.89	17.68	16.29	16.81	16.75	15.70	15.54	15.36
11/2 13:30	2,000	2,000	1,999	2,001	2,000	2,000	2,000	1,999	2,001	2,000	2,000	1,999	671	2,000	1,999	17.40	16.58	16.84	16.19	17.28	17.67	18.90	15.25	14.50	15.58	14.40	13.63	14.83	15.02	13.82
11/2 13:40	1,999	1,941	2,000	2,000	2,000	1,998	2,000	2,000	2,000	2,000	2,000	1,997	2,014	2,000	2,000	16.08	14.24	15.70	17.45	16.93	16.45	16.78	15.78	16.19	15.26	16.25	14.48	13.62	14.85	15.35
11/2 13:50	2,000	2,010	2,000	2,001	1,999	2,000	2,000	2,000	2,000	2,000	1,999	2,003	1,369	2,001	2,000	18.29	17.63	17.72	15.36	15.97	17.85									

11/2 17:20	2,000	2,000	2,000	2,000	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,001	2,000	2,000	2,000	18.53	19.36	20.13	19.92	21.54	20.58	20.87	19.12	17.11	17.10	17.08	18.67	18.00	17.87	18.24	
11/2 17:30	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,001	2,000	2,000	2,000	2,000	19.10	17.64	20.99	20.70	20.65	20.81	21.39	17.49	16.66	16.78	17.29	17.62	15.74	16.71	17.79	
11/2 17:40	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	240	2,001	2,000	18.89	17.92	20.83	20.21	20.68	21.51	21.01	17.19	15.67	16.73	17.95	17.33	16.65	17.12	17.50	
11/2 17:50	2,000	2,000	2,000	2,000	2,000	2,000	1,999	2,000	2,000	2,000	2,000	2,000	-11	2,000	2,000	18.14	18.27	20.08	20.03	20.94	21.63	20.72	17.18	14.49	16.67	17.51	16.99	16.30	16.49	16.30	
11/2 18:00	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-8	2,000	2,000	18.08	18.45	20.07	19.48	21.05	20.57	20.68	15.97	14.61	17.41	17.82	16.37	17.23	17.33	16.19	
11/2 18:10	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	2,000	18.64	18.21	19.88	19.16	21.07	20.69	19.72	15.56	15.26	17.43	17.92	17.43	16.43	16.92	17.30	
11/2 18:20	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-8	2,000	2,000	18.16	17.99	19.39	19.27	20.85	19.61	19.92	15.86	15.66	17.57	17.04	16.20	16.80	16.85	16.72	
11/2 18:30	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,996	-7	2,001	2,000	18.01	17.50	19.11	19.10	19.78	19.23	18.96	16.45	15.64	15.75	16.48	17.24	16.51	16.19	16.97	
11/2 18:40	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,005	-6	2,000	1,999	17.95	17.50	19.19	19.95	20.20	18.09	19.79	16.17	15.30	15.45	17.61	16.29	16.16	16.47	16.27	
11/2 18:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	2,000	18.71	17.44	18.96	19.18	20.37	19.10	20.46	16.18	15.89	15.94	17.55	15.82	16.48	16.52	16.38	
11/2 19:00	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,001	2,000	18.65	16.21	18.51	17.60	18.87	18.92	19.10	16.09	14.89	15.61	16.21	14.99	15.48	15.70	15.80	
11/2 19:10	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,999	-7	2,001	1,999	16.61	15.11	15.90	16.93	17.01	17.53	17.51	14.65	13.91	15.21	15.68	15.46	15.77	14.93	15.06	
11/2 19:20	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	2,000	16.10	15.22	16.67	16.30	17.26	16.64	17.50	14.88	14.72	15.80	16.16	15.93	16.06	16.23	15.55	
11/2 19:30	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	2,000	17.42	16.03	17.69	17.70	18.83	17.81	17.34	15.43	14.98	16.06	16.31	15.77	16.05	15.99	15.83	
11/2 19:40	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	1,999	17.33	16.10	17.39	17.94	18.78	18.75	18.95	16.63	14.86	16.46	16.83	15.73	16.86	16.24	16.04	
11/2 19:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-7	2,000	1,999	15.89	14.94	16.68	16.07	17.30	16.79	17.08	13.85	13.27	14.08	14.97	13.99	14.30	14.24	14.90	
11/2 20:00	1,997	1,994	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	-6	2,000	2,000	13.36	13.16	14.60	14.77	16.00	14.98	15.38	12.60	13.11	12.87	14.40	13.61	14.07	13.38	13.27	
11/2 20:10	1,997	1,957	2,000	2,000	2,000	2,000	1,991	2,000	2,000	2,000	2,000	2,000	-4	2,000	1,999	13.36	11.91	12.76	13.76	13.95	13.23	12.84	10.85	12.12	12.70	13.15	12.73	13.16	13.13	12.69	
11/2 20:20	2,005	2,021	1,999	2,000	1,999	2,000	2,007	1,861	2,000	1,997	2,000	1,999	-4	1,995	1,986	12.82	11.88	13.23	13.41	14.46	13.80	14.08	11.10	12.32	12.34	13.17	11.13	12.21	11.88	11.77	
11/2 20:30	1,985	1,976	2,000	1,999	1,996	2,000	1,942	1,760	1,969	2,001	1,999	1,998	-4	2,005	2,012	11.71	11.37	13.05	12.98	13.82	13.22	13.52	9.96	11.62	12.15	12.87	11.37	12.01	11.76	10.81	
11/2 20:40	2,010	1,863	1,999	1,907	1,987	1,969	1,975	1,918	2,001	1,980	1,958	1,996	-5	1,965	1,851	12.21	11.28	12.03	12.20	12.67	12.52	12.69	11.00	11.91	11.75	11.52	11.09	11.25	11.29	10.15	
11/2 20:50	1,999	1,844	1,996	1,974	1,995	1,972	1,798	1,661	1,885	1,896	2,003	2,004	-4	2,015	1,931	12.89	10.98	12.17	12.08	12.29	12.93	11.55	9.77	11.00	10.82	12.12	11.18	11.69	11.63	10.21	
11/2 21:00	2,000	1,866	1,967	1,889	1,988	1,948	1,894	1,416	1,805	2,005	1,999	1,997	-4	1,988	1,945	13.03	11.26	11.82	12.31	12.29	13.24	12.33	9.34	10.69	11.42	12.76	11.26	11.79	11.30	11.18	
11/2 21:10	1,937	1,758	1,966	1,953	1,939	1,985	1,849	1,784	1,995	2,001	2,000	2,000	-4	2,004	2,006	12.30	10.76	11.82	12.75	12.55	13.01	11.91	10.92	11.76	12.33	14.19	13.07	13.22	12.52	12.00	
11/2 21:20	2,008	1,877	1,998	1,954	1,954	1,998	1,861	1,929	2,009	1,999	1,999	2,000	-4	2,000	1,999	13.08	12.13	13.34	13.54	13.60	12.89	11.83	11.72	13.32	14.40	15.41	13.46	13.69	14.71	12.42	
11/2 21:30	1,999	1,919	1,999	1,986	1,957	1,994	1,925	2,009	2,000	2,000	2,000	2,000	-4	2,001	2,001	14.35	12.23	13.65	14.90	13.41	13.60	12.28	12.75	13.88	14.50	15.87	13.48	14.75	14.66	13.46	
11/2 21:40	1,991	1,978	1,993	1,999	2,020	2,018	1,916	1,996	1,999	2,000	2,000	2,000	-3	2,000	2,000	14.54	13.37	14.51	16.00	15.24	13.96	12.37	13.24	14.87	14.29	16.21	15.56	16.63	16.19	14.28	
11/2 21:50	2,008	2,017	2,006	1,941	1,994	2,001	1,963	1,983	1,999	1,999	1,999	1,999	-5	2,000	1,999	13.52	12.75	13.69	13.95	13.91	13.89	12.80	12.33	13.28	14.49	15.77	15.61	17.13	16.39	14.55	
11/2 22:00	1,998	1,995	1,999	2,004	2,001	1,973	1,927	2,015	2,001	2,001	2,001	2,000	-4	2,000	2,000	14.96	13.30	14.49	15.01	14.30	14.34	14.05	14.71	16.07	15.08	16.50	15.72	16.48	15.67	14.89	
11/2 22:10	2,001	2,004	1,999	1,989	2,001	2,012	1,966	1,998	2,000	2,000	1,999	2,000	-4	2,000	2,000	17.06	15.47	17.06	17.06	15.59	15.78	14.07	14.80	14.81	15.37	16.60	15.20	16.96	16.50	16.04	
11/2 22:20	2,000	1,999	2,000	2,004	2,000	1,999	1,999	2,001	1,999	1,994	2,000	2,000	-5	2,001	1,999	16.35	14.49	16.14	17.26	18.15	18.86	18.41	15.22	16.36	16.54	15.26	16.36	15.44	16.29	16.19	
11/2 22:30	2,000	2,001	1,999	2,000	2,000	2,000	1,999	2,000	1,999	2,005	1,986	1,999	-6	2,000	2,000	16.61	15.91	17.96	17.42	16.98	18.74	18.16	15.60	15.07	15.69	15.82	16.64	16.17	16.20	14.82	
11/2 22:40	2,000	2,000	2,000	2,000	2,000	1,999	1,998	2,000	1,999	2,000	2,010	2,000	-5	2,000	2,000	16.77	16.93	19.70	20.16	17.61	16.30	18.16	14.31	14.13	14.96	16.80	15.86	15.63	15.03	15.35	15.71
11/2 22:50	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,999	1,999	2,000	616	1,999	-4	2,000	2,000	15.43	15.30	16.85	18.94	17.84	17.19	17.23	13.71	14.08	16.14	16.42	14.96	15.17	15.44	15.65	
11/2 23:00	2,000	1,999	1,999	2,000	2,000	2,000	1,999	2,001	1,997	1,999	167	2,001	-5	2,000	2,000	15.21	14.84	14.62	16.65	16.77	15.71	16.09	16.59	15.96	14.67	17.34	15.55	14.38	14.08	14.52	
11/2 23:10	1,999	2,000	2,001	2,000	2,000	2,000	2,000	2,000	1,999	2,000	0	1,999	-6	2,000	2,000	14.78	14.98	15.59	16.49	17.06	15.48	15.75	16.44	15.61	15.77	17.89	15.47	15.40	15.04	14.73	
11/2 23:20	1,991	2,000	1,999	2,000	1,999	1,992	1,996	2,000	2,000	1,999	-1	2,000	-5	2,000	2,000	14.95	14.58	17.15	16.85	15.91	15.08	15.21	15.35	14.31	15.58	18.03	15.21	16.14	15.29	15.42	
11/2 23:30	1,998	2,000	2,000	1,999	2,000	2,006	2,000	1,999	2,000	2,000	-1	2,000	-5	2,001	1,999	17.03	14.98	16.61	17.86	18.84	17.02	16.98	16.90	16.36	17.40	16.83	15.99	15.47	15.98	13.01	
11/2 23:40	1,996	1,999	1,999	2,000	2,000	1,999	1,990	2,000	1,999	2,000	-1	2,000	-4	2,000	1,999	15.70	15.73	17.01	17.47	18.10	16.63	14.79	17.07	15.24	15.89	17.31	16.56	15.80	15.55	15.19	
11/2 23:50	2,003	2,00																													

11/3 3:00	1,252	1,681	1,368	1,222	1,160	1,402	1,336	1,890	1,902	1,683	-1	1,145	-5	1,604	1,630	9.56	10.66	9.75	9.16	9.43	10.04	10.65	10.49	10.63	10.36	12.51	8.48	8.58	9.98	9.81
11/3 3:10	1,371	1,348	1,538	1,569	1,459	1,531	1,502	1,993	1,632	1,938	-1	1,511	-5	1,833	1,536	10.07	9.36	10.50	10.79	10.54	10.55	10.96	11.41	10.30	11.28	12.58	9.56	10.15	10.71	9.60
11/3 3:20	1,435	1,466	1,564	1,511	1,354	1,604	1,457	2,010	1,980	1,814	-1	1,498	-4	1,558	1,784	10.31	10.32	10.59	10.42	9.85	11.00	10.92	12.78	11.24	10.23	13.30	9.69	9.37	9.52	10.35
11/3 3:30	1,680	1,806	1,810	1,448	1,280	1,510	1,755	2,000	1,949	1,972	-1	1,884	-4	1,917	1,981	11.69	11.55	11.76	10.31	9.68	10.40	12.08	12.50	12.31	11.63	13.92	10.75	10.23	10.87	11.69
11/3 3:40	1,522	1,660	1,845	1,657	1,601	1,755	1,674	2,000	1,960	1,974	-1	1,819	-5	1,887	1,955	10.79	10.84	12.09	11.23	11.47	12.09	11.50	12.19	11.60	11.45	14.10	10.85	10.22	11.29	11.63
11/3 3:50	1,818	1,774	1,607	1,530	1,545	1,681	1,646	1,999	1,981	2,005	-1	1,962	-5	1,922	1,775	12.46	11.54	10.71	10.92	11.29	11.14	11.38	12.01	12.28	12.70	14.87	11.20	11.15	11.34	10.35
11/3 4:00	1,819	1,544	1,720	1,537	1,555	1,723	1,602	1,999	2,010	1,999	-1	1,950	-5	2,007	2,016	12.05	10.40	11.33	10.51	10.63	11.33	11.83	14.07	11.80	12.11	15.13	11.85	11.54	12.44	13.07
11/3 4:10	1,801	1,736	1,872	1,672	1,760	1,781	1,649	2,000	1,999	1,998	-1	1,803	-5	1,943	1,916	12.04	11.32	12.15	11.16	11.86	11.80	11.07	12.34	11.72	12.21	13.59	10.48	10.40	11.22	10.52
11/3 4:20	1,953	1,943	1,946	1,821	1,890	1,800	1,700	1,999	1,977	2,000	-1	1,932	-5	2,000	1,924	13.40	12.59	12.49	12.25	12.41	11.83	11.29	12.22	11.87	11.76	14.07	11.53	10.85	12.05	11.35
11/3 4:30	1,937	1,985	2,013	1,794	1,848	1,758	1,966	1,999	1,998	1,999	-1	2,001	-5	1,919	1,919	12.84	12.79	13.99	12.50	12.62	11.82	12.90	13.21	12.53	13.12	16.03	13.00	11.32	11.12	10.91
11/3 4:40	1,960	1,987	1,997	1,984	1,996	1,902	1,963	2,000	1,975	1,986	-1	1,998	-5	2,005	1,985	13.06	12.30	13.61	13.39	13.51	12.81	12.85	14.01	11.99	11.75	15.76	12.23	10.32	11.67	11.52
11/3 4:50	1,829	1,943	1,984	1,951	1,980	1,715	1,730	2,000	2,007	2,004	-1	1,977	-5	1,981	1,993	12.62	12.32	13.88	13.62	13.63	11.64	11.49	14.16	13.22	12.73	15.71	11.61	12.00	11.94	12.03
11/3 5:00	1,969	1,962	1,958	1,889	1,777	1,849	1,805	2,000	2,000	1,977	-1	1,939	-5	2,000	1,996	14.75	13.45	14.61	14.95	14.00	13.52	13.07	14.10	14.14	14.35	17.47	12.60	12.83	14.34	14.64
11/3 5:10	1,910	2,004	2,000	1,998	1,999	1,994	1,988	2,000	1,999	2,016	-1	2,000	-5	2,000	2,002	13.96	15.06	16.10	16.09	16.27	15.20	15.03	16.40	15.14	16.02	21.13	14.03	13.18	13.96	15.06
11/3 5:20	1,954	1,995	2,000	2,000	1,995	2,009	2,017	2,000	2,000	1,999	-1	1,992	-5	2,000	1,999	13.85	14.03	16.74	15.81	15.74	16.52	17.36	16.10	15.55	15.54	17.76	12.10	14.00	15.06	14.11
11/3 5:30	1,911	2,005	2,000	1,998	2,004	2,000	1,992	2,000	1,999	2,001	-3	2,007	140	2,000	2,001	14.38	15.42	16.05	16.28	16.14	15.66	16.04	15.03	15.71	16.59	18.49	13.19	14.61	15.89	15.63
11/3 5:40	2,006	1,997	2,000	2,000	2,000	2,000	1,883	2,000	2,000	1,964	-1	2,000	1,351	2,000	1,998	15.97	15.73	16.90	16.83	16.96	16.63	16.24	14.92	15.91	16.16	20.63	16.20	13.42	15.29	14.53
11/3 5:50	1,952	1,998	2,000	1,998	1,997	1,973	1,948	2,000	2,000	1,999	-1	1,943	2,003	2,000	1,998	14.32	14.88	15.04	15.08	14.38	14.33	14.03	13.37	13.62	13.52	17.48	12.45	13.35	14.88	15.87
11/3 6:00	1,857	1,817	1,993	2,000	1,868	1,959	1,946	1,997	1,999	2,000	-1	1,980	1,999	2,000	1,999	13.33	12.40	14.77	14.09	13.52	14.04	13.70	12.13	12.72	14.19	17.63	12.75	12.52	13.62	13.38
11/3 6:10	1,565	1,950	1,963	1,969	1,883	1,959	1,991	2,001	2,000	2,000	-1	1,980	1,915	1,912	1,923	11.47	13.05	14.32	14.91	13.62	14.38	14.20	13.35	14.00	13.96	17.66	12.66	11.78	12.80	12.62
11/3 6:20	1,546	1,353	1,775	1,891	1,677	1,891	1,758	1,993	2,000	2,000	[-11059]	1,962	1,921	1,720	1,924	11.11	9.87	11.70	12.60	11.83	12.95	11.84	13.45	13.58	15.85	[-11059]	11.73	11.29	11.05	12.18
11/3 6:30	1,441	1,658	1,719	1,831	1,596	1,625	1,613	2,006	2,000	1,998	[-11059]	1,909	1,831	1,609	1,777	10.37	11.37	11.71	12.62	11.38	11.36	11.48	12.72	13.09	12.47	[-11059]	11.30	10.31	10.58	10.21
11/3 6:40	1,455	1,658	1,943	1,801	1,638	1,767	1,673	2,000	1,999	1,959	[-11059]	1,355	1,570	1,768	1,915	10.59	10.76	12.48	12.43	11.62	11.92	11.54	13.40	12.84	12.63	[-11059]	8.95	8.97	10.47	11.91
11/3 6:50	1,516	2,013	1,992	1,890	1,692	1,399	1,293	2,000	1,968	1,973	[-11059]	1,418	1,858	1,706	1,852	10.73	12.23	13.44	11.99	11.53	10.35	9.68	12.88	11.64	11.62	[-11059]	9.43	10.45	10.48	10.81
11/3 7:00	1,325	1,817	1,892	1,624	1,320	1,098	1,017	1,990	1,863	1,981	[-11059]	1,289	1,122	820	1,385	9.82	11.16	12.17	11.34	9.73	9.07	9.19	11.50	11.50	11.93	[-11059]	8.66	7.86	7.21	9.04
11/3 7:10	1,527	1,812	1,653	1,768	1,599	1,463	1,262	1,931	1,864	1,949	[-11059]	1,260	1,464	1,229	1,761	10.80	11.35	11.39	11.89	11.25	10.23	9.79	11.52	11.00	11.42	[-11059]	8.94	9.14	8.72	10.55
11/3 7:20	1,199	1,459	1,742	1,552	1,305	1,532	1,580	1,797	1,885	1,449	[-11059]	1,554	1,398	831	1,352	9.58	10.15	11.13	11.32	9.92	10.66	11.17	10.63	11.18	9.38	[-11059]	9.65	8.75	7.07	8.91
11/3 7:30	1,209	1,378	1,732	1,649	1,398	1,223	1,282	1,664	1,531	1,474	[-11059]	1,649	1,273	1,144	1,477	9.61	9.89	11.42	10.74	10.02	9.24	9.52	9.73	10.01	9.35	[-11059]	10.31	8.39	8.48	9.30
11/3 7:40	1,571	1,582	1,708	1,521	1,554	1,040	832	1,901	1,736	1,672	[-11059]	1,940	1,742	1,463	1,902	10.45	10.30	11.29	10.94	10.58	8.41	7.36	10.52	10.33	9.87	[-11059]	11.03	9.81	9.59	10.51
11/3 7:50	1,328	1,845	1,737	1,747	1,642	1,363	1,230	1,598	1,809	1,847	[-11059]	1,684	1,763	1,530	1,888	9.96	11.87	11.53	11.89	11.26	10.06	9.75	9.81	10.65	10.47	[-11059]	10.46	9.85	9.43	10.93
11/3 8:00	1,352	1,605	1,908	1,800	1,618	1,403	1,466	1,934	1,785	1,608	[-11059]	861	708	667	1,314	9.87	10.68	12.56	11.67	10.79	10.27	11.05	11.21	11.17	10.11	[-11059]	7.73	6.62	6.26	8.75
11/3 8:10	1,358	1,363	1,567	1,511	1,307	1,281	1,482	1,665	1,716	1,619	[-11059]	1,405	1,373	1,195	1,744	10.52	9.89	10.31	10.44	9.43	9.56	10.54	9.68	10.09	9.82	[-11059]	9.60	8.93	8.40	10.53
11/3 8:20	1,453	1,791	1,887	1,764	1,606	1,673	1,840	1,016	1,131	1,798	[-11059]	1,348	1,333	1,238	1,694	10.54	11.68	12.58	11.77	11.01	11.35	12.60	8.02	8.52	10.56	[-11059]	9.11	8.63	8.68	9.94
11/3 8:30	1,818	1,957	2,003	1,866	1,764	1,564	1,683	1,137	1,804	1,844	[-11059]	1,793	1,769	1,907	1,822	12.34	13.19	13.18	12.34	11.48	10.86	11.22	8.33	9.93	10.20	[-11059]	9.98	9.71	10.95	11.24
11/3 8:40	1,887	2,018	1,988	1,924	1,939	1,825	1,852	1,266	1,353	1,443	-16	1,727	1,727	1,673	1,887	12.74	13.37	13.50	13.43	13.05	12.21	11.98	8.73	9.12	9.78	13.64	9.97	9.41	10.49	11.43
11/3 8:50	1,993	1,881	1,927	1,660	1,604	1,599	1,573	1,692	1,924	1,724	1,393	1,704	1,699	1,737	1,939	12.82	12.14	12.48	11.39	10.66	10.86	11.28	10.38	11.03	9.97	10.43	10.13	9.34	10.33	11.02
11/3 9:00	1,347	1,449	1,333	1,270	1,023	1,029	1,129	1,684	1,408	1,707	1,599	1,188	1,195	932	1,394	9.99	9.98	9.53	9.42	8.43	8.34	8.74	9.69	9.18	10.01	10.71	8.57	8.21	7.52	8.67
11/3 9:10	1,420	1,860	1,925	1,519	1,178	1,210	1,332	1,235	1,591	1,591	1,659	1,171	1,035	978	1,383	10.16	11.49	11.65	10.69	9.11	9.50	9.84	8.61	9.68	9.56	10.27	8.13	7.41	7.52	9.07
11/3 9:20	1,477	1,742	1,436	1,373	1,234	1,504	1,618	1,370	697	1,568	1,898	1,590	1,400	853	1,329	10.23	10.45	9.89	9.75	9.44	10.27	10.86	8.96	7.59	9.37	10.91	9.71	9.04	7.29	8.65
11/3 9:30	1,697	1,719	1,835	1,595	1,520	1,667	1,776	941	769	829	1,065	793	791	623	1,304	11.34	10.84	11.71	10.98	10.33	10.93									

11/3 12:50	869	1,063	963	816	570	698	712	1,286	768	777	685	597	566	664	736	7.96	8.38	8.03	7.74	6.46	7.12	7.37	8.51	7.46	7.24	7.27	6.53	6.31	6.77	6.92
11/3 13:00	1,065	915	989	556	411	732	486	1,178	969	782	891	671	404	369	744	9.01	7.49	7.88	6.73	5.96	7.16	6.87	8.26	8.03	7.09	7.72	6.91	5.81	5.29	6.82
11/3 13:10	1,000	922	540	718	355	558	643	846	618	539	654	391	312	274	712	8.24	7.45	6.14	7.31	5.62	6.41	7.16	7.33	6.86	6.39	6.92	5.93	5.35	5.06	6.80
11/3 13:20	725	674	678	595	296	584	665	496	430	496	707	634	449	267	466	7.42	6.87	6.88	6.72	5.11	6.67	7.17	6.17	6.30	6.22	7.07	6.80	6.15	4.76	6.01
11/3 13:30	275	349	665	602	229	395	437	418	431	527	553	398	401	348	536	4.89	5.04	6.65	6.79	4.61	5.69	6.18	6.01	5.94	6.45	6.64	5.90	5.68	5.36	6.39
11/3 13:40	283	173	368	271	154	363	312	324	312	455	542	333	305	156	432	5.18	4.41	5.58	5.11	4.36	5.85	6.11	5.57	5.53	6.17	6.69	5.51	5.41	3.74	6.09
11/3 13:50	413	416	473	404	243	522	523	277	305	304	342	232	263	121	400	6.02	5.92	6.11	5.99	4.92	6.64	6.98	5.36	5.43	5.49	5.90	5.15	5.34	3.60	5.94
11/3 14:00	852	710	869	733	608	997	928	371	209	280	495	372	342	326	702	7.80	7.13	7.76	7.72	6.80	8.72	8.67	6.03	5.11	5.40	6.40	5.99	5.59	5.27	7.01
11/3 14:10	1,003	979	995	947	559	1,141	1,067	520	297	356	561	448	468	446	744	8.38	7.87	8.06	8.50	6.41	9.15	9.03	6.56	5.55	5.71	6.54	6.43	6.03	5.93	7.00
11/3 14:20	832	718	769	752	261	546	664	461	354	492	483	368	463	390	693	7.65	6.84	7.04	7.21	4.54	6.18	7.16	6.20	5.64	6.32	6.35	5.88	6.06	5.49	7.00
11/3 14:30	569	430	573	654	319	237	433	651	442	445	503	453	436	212	768	6.33	5.64	6.30	6.77	4.99	4.59	6.40	6.81	6.20	6.14	6.50	6.37	6.03	4.18	7.12
11/3 14:40	261	369	360	316	210	343	432	575	566	515	601	428	372	204	622	5.33	5.85	5.64	5.77	4.62	5.65	6.51	6.55	6.62	6.46	6.93	6.23	5.81	4.35	6.79
11/3 14:50	655	615	534	489	277	675	756	575	499	507	640	494	434	204	763	7.47	6.93	6.37	6.45	5.01	7.39	7.85	6.50	6.33	6.30	6.94	6.52	6.31	3.77	7.21
11/3 15:00	855	674	792	754	674	1,066	1,041	657	492	446	534	348	383	252	672	8.27	6.73	7.65	8.02	6.91	9.07	9.09	6.79	6.29	6.22	6.77	5.80	6.00	4.52	6.94
11/3 15:10	897	668	933	853	730	1,112	991	732	514	501	669	509	499	491	651	7.60	6.87	7.70	8.46	7.28	9.23	8.83	7.21	6.62	6.35	7.03	6.69	6.30	6.25	6.86
11/3 15:20	934	706	867	769	450	1,086	1,040	621	454	479	551	431	399	245	536	7.78	6.92	7.44	7.94	5.62	8.98	9.04	6.90	6.40	6.37	6.65	6.26	5.86	4.35	6.47
11/3 15:30	939	729	820	718	660	1,076	1,031	615	499	487	573	437	433	288	569	7.74	7.05	7.36	7.81	7.07	9.17	9.02	6.88	6.65	6.39	6.76	6.27	6.12	5.03	6.62
11/3 15:40	775	592	709	635	624	858	784	538	383	415	533	419	462	452	690	7.18	6.60	6.98	7.53	7.24	8.35	8.15	6.67	6.19	6.07	6.69	6.34	6.23	6.48	7.09
11/3 15:50	853	626	771	609	539	735	644	616	455	517	671	540	516	504	773	7.52	6.66	7.08	7.36	6.42	7.85	7.64	6.95	6.56	6.50	7.15	6.83	6.37	6.55	7.35
11/3 16:00	732	569	676	608	441	677	564	613	439	481	584	477	456	419	613	7.28	6.54	6.72	7.60	5.93	7.77	7.24	7.01	6.42	6.32	6.83	6.55	6.20	6.17	6.83
11/3 16:10	532	416	534	492	281	541	444	464	431	457	504	374	354	331	446	6.38	5.81	6.26	6.91	4.78	7.00	6.66	6.35	6.50	6.25	6.54	6.18	5.86	5.74	6.31
11/3 16:20	333	230	283	280	69	330	297	303	308	329	368	309	318	228	412	5.37	4.76	5.07	5.67	2.69	5.99	5.83	5.61	5.72	5.67	5.86	5.73	5.57	4.70	6.05
11/3 16:30	275	195	265	275	69	288	320	250	236	270	375	285	271	202	405	5.04	4.60	5.13	5.63	3.02	5.63	6.01	5.32	5.31	5.36	5.99	5.62	5.32	4.44	5.97
11/3 16:40	294	200	270	294	73	269	315	72	83	120	212	171	165	103	279	5.19	4.53	5.11	5.63	3.04	5.57	5.99	3.94	4.13	4.41	5.25	4.88	4.64	3.47	5.36
11/3 16:50	216	139	197	198	37	243	236	72	79	102	201	139	145	110	200	4.68	3.99	4.57	5.03	2.45	5.44	5.37	4.18	4.00	4.12	5.09	4.57	4.44	3.90	4.90
11/3 17:00	104	48	85	76	36	156	153	-3	7	4	20	-9	1	-18	45	3.84	3.20	3.73	3.91	2.88	4.89	4.76	3.12	3.11	2.89	3.20	2.53	2.64	2.33	3.59
11/3 17:10	112	65	98	93	109	137	100	-14	-22	-11	20	-20	-11	15	64	3.88	3.39	3.87	3.92	4.22	4.70	4.19	3.07	2.62	2.69	3.42	2.61	2.40	2.99	3.93
11/3 17:20	19	-17	-2	2	19	6	-21	4	-25	-5	55	-21	-12	4	24	2.86	1.77	2.53	2.62	2.91	2.76	2.21	3.19	2.46	2.86	3.78	2.61	2.20	2.79	3.24
11/3 17:30	-6	-27	-17	-16	12	-24	-26	-14	-16	-19	5	-18	-5	-11	10	2.63	2.04	2.60	2.53	3.04	2.39	2.23	2.38	2.48	2.34	2.97	2.56	2.77	2.76	3.01
11/3 17:40	-23	-25	-29	-28	4	-23	-24	-28	-20	-21	-29	-25	-11	-26	-23	2.21	1.75	2.04	1.97	2.80	2.28	1.87	1.02	1.07	1.19	2.20	1.44	1.50	2.00	1.90
11/3 17:50	-16	-23	-29	-23	4	-17	-26	-26	-18	-19	-25	-23	-9	-25	-21	2.15	1.78	2.13	1.96	2.90	2.42	1.83	1.43	1.36	1.40	1.90	1.22	1.45	1.73	1.52
11/3 18:00	-23	-21	-27	-23	3	-16	-22	-26	-18	-19	-23	-23	-7	-24	-19	1.89	1.51	1.98	2.31	2.81	2.41	2.37	1.50	1.70	1.72	2.44	1.82	1.76	1.96	2.01
11/3 18:10	-10	-25	-19	-25	30	-7	-17	-25	-19	-19	-24	-22	-7	-26	-19	2.63	2.26	2.68	2.60	3.28	2.67	2.34	1.76	2.20	2.01	2.44	1.97	1.91	2.23	2.09
11/3 18:20	-17	-21	-27	-27	10	-22	-27	-26	-20	-18	-23	-24	-8	-24	-19	2.54	1.86	2.49	2.70	3.00	2.32	1.88	1.93	1.85	1.53	1.84	1.85	1.67	1.71	1.96
11/3 18:30	-25	-19	-31	-28	-12	-29	-28	-26	-19	-19	-24	-24	-8	-22	-19	1.86	1.56	1.86	2.08	2.56	2.33	2.05	0.91	1.12	0.98	2.33	0.91	1.10	1.61	1.59
11/3 18:40	-25	-18	-27	-25	-21	-28	-27	-24	-19	-18	-23	-23	-8	-22	-19	1.72	1.47	1.67	2.09	2.41	2.12	1.78	0.63	1.13	1.56	1.82	1.23	1.38	1.52	1.16
11/3 18:50	-23	-20	-24	-23	-30	-27	-24	-24	-19	-19	-23	-22	-8	-24	-18	2.04	1.75	1.82	2.25	2.35	1.92	1.70	0.98	1.02	1.22	1.54	1.19	1.53	1.29	1.06
11/3 19:00	-24	-19	-24	-24	-25	-30	-24	-25	-17	-17	-23	-22	-8	-23	-18	2.59	2.14	2.46	2.59	2.62	2.09	2.10	1.59	2.04	1.93	2.36	2.16	2.29	2.06	1.72
11/3 19:10	-26	-20	-23	-23	-30	-26	-24	-24	-16	-17	-23	-22	-7	-23	-18	2.45	1.91	2.40	2.36	2.54	2.14	2.11	1.30	1.67	1.56	2.01	1.56	2.19	1.94	1.59
11/3 19:20	-25	-20	-23	-22	-31	-24	-23	-24	-15	-17	-23	-22	-7	-23	-18	2.25	1.38	2.43	2.27	2.88	2.27	2.08	1.60	1.85	1.58	2.18	1.90	2.13	1.99	1.76
11/3 19:30	-7	-19	-23	-22	-9	-25	-24	-24	-16	-18	-23	-22	-7	-23	-18	2.95	1.63	2.84	2.54	2.83	2.77	2.50	2.35	2.51	2.29	2.55	2.60	2.64	2.51	2.61
11/3 19:40	8	-17	-23	-23	-14	-27	-23	-23	-17	-19	-17	-24	6	-13	-16	2.85	1.97	2.85	2.88	2.85	2.73	2.27	2.93	3.16	3.03	3.13	3.08	3.23	2.86	2.84
11/3 19:50	37	-17	-23	11	5	-10	-22	-23	9	5	24	18	51	25	12	3.12	2.59	3.00	3.28	3.08	2.94	2.46	2.87	3.03	3.20	3.33	2.79	3.43	2.96	2.94
11/3 20:00	131	44	105	91	90	51	-22	-22	80	69	89	83	113	98	69	4.11	3.71	4.00	4.19	3.97	3.39	2.36	2.72	4.09	3.84	4.14	3.78	4.16	3.88	3.78
11/3 20:10	180	114	151	131	123	77	-4	13	98	89	115	100	132	119	96	4.50	3.85	4.35	4.55	4.22	3.66	3.17	3.07	4.26	4.00	4.46	3.98	4.45	4.08	4.11
11/3 20:20	250	163	192	165	179	143	103	28	132	129	153	132	170	148	114	5.00	4.31	4.65	4.90	5.01	4.72	4.07	3.18	4.54	4.42	4.60	4.21	4.72	4.32	4.10
11/3 20:30	247	153	176	163																										

11/3 22:40	74	-8	24	73	175	63	20	-29	24	6	13	-5	76	43	24	3.64	2.18	2.91	3.82	4.73	3.55	2.92	2.68	3.52	3.02	3.36	2.59	3.52	3.26	2.93
11/3 22:50	79	0	44	103	142	94	68	-2	59	91	119	95	157	99	86	3.99	2.39	3.36	4.25	4.63	3.92	3.68	2.78	3.68	3.89	4.38	3.67	4.19	3.81	3.72
11/3 23:00	270	129	249	312	372	272	204	144	338	324	350	307	366	349	224	5.38	4.36	5.42	6.01	6.33	5.61	5.24	4.36	6.23	5.84	5.92	5.33	5.71	5.56	4.99
11/3 23:10	360	263	350	369	450	409	365	117	355	350	380	297	359	374	304	5.71	5.43	5.57	6.14	6.38	6.44	6.44	4.17	6.01	5.90	6.24	5.48	5.88	6.07	5.68
11/3 23:20	262	218	264	288	335	339	341	91	244	271	301	266	316	292	297	5.37	4.80	5.04	5.57	6.16	6.10	6.06	3.93	5.57	5.39	5.63	5.38	5.63	5.23	5.38
11/3 23:30	380	324	382	398	447	475	483	147	299	326	365	333	387	369	386	5.99	5.42	5.76	6.27	6.88	7.00	7.06	4.37	6.11	5.71	6.06	5.69	5.96	5.64	5.69
11/3 23:40	485	431	485	498	586	621	665	200	366	379	456	378	419	412	432	6.25	5.89	6.17	6.57	7.04	7.39	7.59	4.19	5.95	5.91	6.36	5.97	6.07	5.72	5.85
11/3 23:50	472	411	473	482	572	623	647	153	380	388	465	374	383	403	395	6.09	5.76	6.38	6.86	7.26	6.90	7.16	3.71	6.57	6.07	6.55	5.82	5.91	5.86	5.75
11/4 0:00	435	352	421	421	529	549	543	277	349	370	458	329	344	389	381	6.20	5.70	6.35	6.83	7.22	6.81	7.26	5.54	6.54	5.96	6.50	5.79	5.91	5.86	5.91
11/4 0:10	396	303	358	343	496	517	514	130	322	333	394	313	318	327	328	5.85	5.38	5.90	6.23	6.71	6.53	6.91	3.79	6.14	5.77	6.26	5.65	5.71	5.44	5.57
11/4 0:20	437	311	400	402	653	632	564	112	343	369	413	353	366	355	347	6.16	5.54	6.15	6.50	7.83	7.41	7.11	3.58	6.28	5.93	6.45	5.97	5.95	5.68	5.71
11/4 0:30	527	323	466	505	922	795	649	294	334	349	428	326	365	408	397	6.77	5.85	6.52	6.95	8.52	8.17	7.60	5.61	6.43	5.88	6.40	6.06	5.96	6.00	5.87
11/4 0:40	691	439	638	689	1,041	870	749	327	411	427	580	406	452	543	499	7.52	6.57	7.20	7.90	8.79	8.58	8.01	5.46	6.65	6.27	7.13	6.40	6.51	6.76	6.22
11/4 0:50	771	533	798	852	964	963	862	300	567	537	635	545	646	679	726	8.05	6.97	7.69	8.51	8.89	9.18	8.91	5.11	7.26	6.55	7.21	6.51	7.09	7.47	6.92
11/4 1:00	561	283	577	582	649	589	519	91	420	467	582	614	683	803	780	8.72	7.20	8.07	8.70	9.02	8.41	8.05	4.94	7.78	7.55	8.08	7.45	8.11	8.81	7.90
11/4 1:10	-26	-22	-26	-25	-24	-25	-24	-12	-11	-19	-27	-24	-11	-24	-21	8.61	7.02	8.42	8.52	8.52	8.26	7.42	7.75	7.84	7.38	8.50	7.35	7.90	8.58	7.74
11/4 1:20	-26	-19	-24	-23	-24	-23	-22	-10	-10	-18	-24	-22	-8	-23	-19	9.25	7.48	9.24	9.29	9.25	8.36	7.94	6.88	8.25	7.99	8.78	7.49	7.79	8.53	7.66
11/4 1:30	658	96	578	1,085	1,272	1,109	828	449	1,035	968	1,271	1,027	1,062	1,321	1,162	7.31	3.20	6.51	9.04	9.49	8.89	8.32	6.15	8.80	8.05	8.86	7.77	8.14	9.06	8.22
11/4 1:40	613	45	660	1,190	1,482	1,250	1,085	352	1,162	1,126	1,276	1,081	1,096	1,339	1,243	6.64	2.59	6.96	8.93	9.89	9.11	9.86	5.44	8.79	8.26	8.72	7.80	8.18	8.93	8.26
11/4 1:50	413	78	643	1,086	1,361	1,251	1,087	374	1,018	1,086	1,183	1,052	1,107	1,241	1,143	5.62	3.16	7.01	8.45	9.39	9.36	9.40	5.89	8.93	8.49	8.64	7.87	8.19	8.74	8.14
11/4 2:00	668	156	1,109	1,495	1,559	1,589	1,375	544	1,508	1,426	1,563	1,477	1,477	1,565	1,492	6.63	3.63	8.99	10.03	11.02	11.27	11.07	6.34	9.99	9.38	9.56	9.15	9.19	9.72	9.18
11/4 2:10	1,003	505	1,741	1,995	1,978	1,969	1,793	847	1,917	1,844	1,983	1,922	1,980	2,012	2,014	7.64	5.87	11.30	12.03	13.56	13.04	12.40	6.98	10.96	10.25	10.85	10.07	10.64	11.42	10.95
11/4 2:20	1,702	1,339	2,018	1,999	1,999	1,999	2,018	1,355	2,002	2,013	1,999	1,999	1,999	2,000	1,999	10.90	9.26	11.98	12.24	13.25	13.17	13.05	8.27	11.09	10.73	11.39	10.62	10.97	12.01	11.11
11/4 2:30	1,981	1,401	1,999	1,999	1,999	1,999	1,999	2,007	1,999	2,000	1,999	2,000	1,999	2,001	1,999	12.81	9.29	11.99	12.24	12.86	12.74	12.97	10.59	11.50	11.36	12.16	10.89	11.95	12.78	11.64
11/4 2:40	1,878	1,250	1,999	2,000	1,999	1,999	1,999	1,999	1,999	1,999	1,999	2,000	1,999	1,999	1,999	12.04	8.23	11.24	12.39	12.98	13.35	12.84	11.62	11.85	11.73	12.41	11.39	12.22	12.78	12.06
11/4 2:50	2,017	1,493	2,000	1,999	1,999	1,997	2,000	1,884	1,999	1,999	1,999	1,999	1,999	2,000	1,999	12.98	9.52	11.72	12.33	12.95	13.01	12.77	9.76	11.19	10.77	12.05	11.25	10.84	12.18	11.72
11/4 3:00	1,999	1,742	1,999	1,999	1,999	1,999	1,919	1,920	1,999	1,999	1,999	2,000	1,999	2,000	1,999	13.78	10.40	12.18	12.62	13.19	12.60	11.70	9.97	10.81	10.28	11.68	10.87	10.63	11.73	11.43
11/4 3:10	1,997	1,627	1,999	2,000	1,999	2,000	1,919	1,973	1,999	2,000	1,999	2,000	1,999	2,000	1,999	13.58	10.03	12.41	12.89	13.36	12.55	11.63	9.86	11.41	10.77	12.03	10.79	10.74	11.79	11.49
11/4 3:20	2,002	1,865	1,999	1,999	1,999	1,998	2,009	1,951	1,999	2,000	1,999	1,999	1,999	2,000	1,999	13.88	10.91	12.94	13.09	13.76	13.32	12.49	9.79	11.14	10.45	11.73	10.66	10.52	11.71	10.85
11/4 3:30	1,999	2,004	2,000	1,999	1,999	1,999	1,999	2,013	1,999	1,999	1,999	1,999	1,999	2,001	1,999	14.72	11.78	13.33	13.36	14.11	13.41	13.30	11.01	10.80	10.28	11.79	10.61	10.38	11.43	11.15
11/4 3:40	1,999	2,000	1,999	1,999	2,001	1,998	1,999	1,996	1,999	1,999	1,999	2,000	1,999	2,001	1,999	14.63	11.99	13.32	13.51	14.24	13.87	13.71	11.03	10.94	10.26	11.94	10.48	10.51	11.65	10.89
11/4 3:50	1,999	1,999	1,999	1,999	1,999	1,999	1,999	2,003	1,999	1,999	1,999	2,000	1,999	2,000	1,999	14.69	12.03	13.18	13.38	14.17	13.87	13.37	10.86	11.34	10.46	12.36	10.59	10.63	11.93	11.48
11/4 4:00	1,998	1,998	1,999	1,999	1,998	1,999	2,000	1,999	1,999	1,999	1,999	1,999	1,999	2,000	1,999	14.67	11.78	13.07	13.22	13.76	13.52	12.70	10.86	11.54	10.78	12.31	10.50	10.55	11.96	11.03
11/4 4:10	1,999	2,000	1,999	1,999	1,999	1,999	1,993	1,957	1,999	1,998	1,999	1,996	1,990	2,000	1,999	14.47	11.46	13.20	13.38	13.74	13.08	12.71	10.82	11.18	10.38	11.64	10.18	9.94	11.14	10.46
11/4 4:20	1,999	1,958	1,999	1,999	1,999	2,000	1,889	1,643	2,000	1,953	1,999	1,997	1,887	2,001	1,999	14.09	10.93	12.86	13.00	13.23	12.42	12.33	9.27	10.72	10.05	11.32	9.84	9.67	11.06	10.03
11/4 4:30	2,000	1,929	1,999	1,999	1,999	1,989	1,813	1,401	2,000	2,010	1,999	1,994	1,798	2,001	1,942	13.67	10.99	12.62	12.74	12.97	11.90	12.03	8.46	10.72	10.31	11.39	9.82	9.50	10.53	9.69
11/4 4:40	1,999	1,997	1,999	1,999	1,999	2,009	1,934	1,379	1,999	1,990	1,999	2,004	1,970	2,000	1,968	13.81	11.27	13.02	13.24	13.21	12.30	12.20	7.94	10.67	10.06	11.20	9.86	9.76	11.01	9.76
11/4 4:50	1,999	1,966	1,999	1,999	1,999	1,999	2,016	1,278	2,000	2,008	1,999	1,999	2,011	2,001	2,008	13.40	11.13	12.89	13.26	13.68	12.92	12.40	7.70	10.56	10.13	11.13	10.06	10.26	11.37	9.89
11/4 5:00	1,999	2,000	1,999	1,999	1,999	2,000	1,994	1,352	1,999	2,000	1,999	1,999	1,999	2,000	2,011	13.73	11.74	13.15	13.63	13.97	13.38	12.51	8.05	10.57	10.15	11.08	10.35	10.45	11.83	10.48
11/4 5:10	1,999	1,937	1,999	2,000	1,999	1,999	2,003	1,205	1,997	1,896	1,999	1,999	1,999	2,000	1,999	13.39	11.34	12.61	13.09	13.66	12.86	12.48	7.68	10.39	9.74	10.68	10.17	10.71	11.57	10.21
11/4 5:20	2,000	1,679	1,999	1,999	1,999	1,999	1,910	1,022	1,858	1,749	1,999	1,981	1,979	2,000	1,963	12.95	10.57	12.25	12.72	13.16	12.17	12.21	7.54	9.96	9.54	10.44	10.19	10.16	11.52	9.92
11/4 5:30	1,999	1,407	1,991	1,998	1,999	1,994	1,859	1,082	1,796	1,719	2,000	1,928	1,905	2,000	1,890	12.16	9.83	11.51	12.18	12.61	12.06									

11/4 8:20	535	137	388	742	978	815	675	437	1,193	1,120	1,536	1,011	775	1,136	1,097	6.05	3.85	5.41	7.86	8.43	7.44	7.69	5.69	8.70	8.31	9.43	7.78	7.01	8.06	7.84
11/4 8:30	489	142	291	487	713	681	590	616	1,378	1,235	1,387	1,090	1,260	1,620	1,406	5.97	3.90	5.21	6.58	7.36	7.01	7.18	6.39	9.23	8.38	8.93	8.07	8.36	9.49	8.55
11/4 8:40	321	97	182	436	638	597	478	606	895	924	1,434	1,255	1,222	992	980	5.35	3.55	4.26	6.42	7.37	6.77	6.87	6.53	7.82	7.73	9.10	8.35	8.27	7.66	7.59
11/4 8:50	232	84	131	446	546	560	524	764	1,240	853	1,076	1,060	934	1,233	1,432	4.84	3.54	3.73	6.61	6.80	6.66	7.00	6.87	8.68	7.34	8.18	7.71	7.46	8.44	8.56
11/4 9:00	219	60	117	383	419	460	459	789	586	528	1,035	1,381	1,357	1,718	1,788	4.82	3.15	3.55	6.20	6.34	6.15	6.83	7.01	6.83	6.46	8.08	8.56	8.58	9.82	9.56
11/4 9:10	241	77	135	311	397	450	404	660	1,062	855	1,418	1,384	1,415	1,978	1,934	4.88	3.39	4.03	5.67	6.11	6.12	6.10	6.44	8.37	7.53	9.22	8.81	8.57	10.44	10.00
11/4 9:20	359	173	287	452	602	553	605	778	1,559	1,520	1,620	1,088	1,802	2,016	1,906	5.53	4.35	5.08	6.12	6.93	6.64	7.01	7.00	9.49	9.17	9.53	7.87	9.72	10.73	9.83
11/4 9:30	350	142	284	616	715	545	479	947	1,732	1,529	1,882	1,555	1,548	1,921	1,767	5.42	3.87	5.12	7.21	7.34	6.61	6.48	7.75	10.16	9.31	10.27	9.06	8.85	10.37	9.56
11/4 9:40	360	141	307	572	630	555	557	1,111	1,539	1,341	1,877	1,641	1,485	1,795	1,628	5.60	4.00	5.07	6.96	7.05	7.00	6.93	7.94	9.27	8.68	10.31	9.31	8.94	9.74	9.23
11/4 9:50	483	143	420	724	883	561	461	1,172	1,884	1,661	1,992	1,845	1,643	1,597	1,571	6.17	3.86	5.76	7.53	7.94	6.68	6.41	8.01	10.42	9.65	10.91	9.94	9.34	9.40	9.03
11/4 10:00	469	105	454	738	858	604	603	1,276	1,893	1,859	2,015	1,972	1,730	1,745	1,883	6.15	3.75	6.00	7.52	7.91	6.79	7.11	8.44	10.46	10.11	11.28	10.53	9.61	9.72	10.05
11/4 10:10	729	287	739	926	997	632	570	691	1,379	1,405	1,837	1,685	1,447	1,928	1,742	7.25	4.82	7.21	8.16	8.44	6.93	6.79	6.60	8.72	8.82	10.19	9.29	8.89	10.34	9.49
11/4 10:20	670	304	698	914	1,055	1,059	848	481	1,027	1,270	1,603	1,376	1,430	1,692	1,417	6.81	5.55	6.99	8.12	8.59	8.83	8.00	5.82	8.17	8.76	9.65	8.67	8.64	9.56	8.68
11/4 10:30	741	291	746	1,003	1,064	1,079	838	548	1,083	1,246	1,522	1,315	1,111	1,552	1,583	7.15	5.09	7.11	8.56	8.64	8.91	8.10	6.64	8.16	8.63	9.45	8.54	7.98	9.17	9.02
11/4 10:40	719	311	687	1,018	921	967	981	533	1,085	1,314	1,732	1,375	1,210	1,426	1,704	7.01	5.16	6.71	8.60	8.33	8.51	8.48	6.16	8.12	8.55	9.57	8.56	8.30	8.88	9.47
11/4 10:50	738	295	681	1,095	1,274	1,246	1,173	381	972	1,036	1,474	1,387	1,803	2,013	1,849	7.09	4.98	6.65	8.98	9.45	9.37	9.32	5.64	7.99	8.13	9.44	8.66	9.82	10.69	9.86
11/4 11:00	741	298	844	1,026	827	1,222	1,295	325	1,158	904	1,199	1,116	1,334	1,704	1,628	7.10	4.98	7.61	8.45	7.93	9.07	9.95	5.41	8.35	7.47	8.66	7.98	8.38	9.62	9.11
11/4 11:10	845	344	825	1,041	893	828	1,053	397	993	910	1,044	1,065	1,206	1,580	1,641	7.64	5.08	7.38	8.64	8.48	7.63	8.98	5.91	8.33	7.59	8.34	7.74	8.25	9.46	9.42
11/4 11:20	546	211	511	831	625	762	740	437	886	814	936	1,108	1,206	1,359	1,284	5.96	4.38	5.96	8.02	7.44	7.42	7.79	6.03	8.01	7.20	7.97	7.87	8.31	9.03	8.31
11/4 11:30	464	145	423	738	517	811	812	318	807	820	1,157	998	1,096	987	1,087	6.23	3.87	5.44	7.75	7.00	7.62	8.26	5.32	7.66	7.47	8.57	7.64	8.00	7.83	7.88
11/4 11:40	411	166	434	611	714	1,044	955	300	813	960	1,190	1,066	1,143	904	790	5.81	4.31	5.93	7.04	7.70	8.46	8.73	5.02	7.46	7.78	8.58	7.97	8.03	7.61	7.06
11/4 11:50	372	137	369	627	767	1,048	813	352	1,021	983	1,235	1,166	1,125	1,270	1,136	5.43	4.00	5.62	7.23	7.87	8.58	8.15	5.63	8.27	7.96	8.68	8.16	8.27	8.92	8.07
11/4 12:00	363	152	428	898	766	870	684	303	801	720	876	969	1,331	1,209	1,149	5.71	4.27	5.38	8.41	7.82	7.67	7.71	5.21	7.61	7.27	7.85	7.82	8.60	8.15	8.16
11/4 12:10	388	142	360	914	1,033	934	485	529	908	911	1,149	811	779	961	1,231	5.67	4.08	5.29	8.57	9.10	8.00	6.74	6.27	8.07	7.71	8.61	7.31	7.33	7.65	8.29
11/4 12:20	315	95	259	589	744	794	423	450	943	785	988	1,053	1,036	1,094	1,175	5.22	3.66	4.53	7.03	8.04	7.65	6.72	6.06	7.80	7.37	8.09	7.91	7.89	8.02	8.05
11/4 12:30	284	110	200	770	984	938	502	709	1,007	1,036	1,344	1,249	1,032	954	897	5.28	3.84	4.22	7.84	8.93	8.06	6.64	7.14	8.50	8.28	9.20	8.55	7.79	7.58	7.44
11/4 12:40	419	144	352	819	980	1,006	497	1,007	1,457	1,306	1,564	1,223	1,010	1,389	1,481	5.61	4.11	5.07	7.88	8.78	8.48	6.66	7.62	9.77	8.68	9.71	8.38	7.84	9.23	8.95
11/4 12:50	424	123	330	974	1,026	708	543	963	1,456	1,518	1,819	1,262	1,648	1,670	1,625	6.05	3.58	4.76	8.66	9.11	7.14	7.15	7.72	9.48	9.32	10.31	8.64	9.47	9.80	9.17
11/4 13:00	548	182	339	979	808	755	679	1,149	1,689	1,549	1,960	1,873	1,849	1,914	1,844	6.37	4.40	4.86	8.67	8.24	7.56	7.91	8.15	10.22	9.19	11.16	9.94	9.91	10.57	9.81
11/4 13:10	433	109	376	1,138	1,002	863	710	1,365	1,687	1,529	1,966	1,807	1,776	1,842	1,869	5.84	3.41	5.11	9.32	9.02	7.89	7.95	8.75	10.01	9.09	10.92	9.91	9.69	10.32	10.05
11/4 13:20	473	113	268	1,076	1,098	964	723	1,362	1,736	1,600	1,861	1,923	1,669	1,907	1,867	6.04	3.65	4.38	9.21	9.31	8.32	8.00	8.73	10.13	9.29	10.31	10.28	9.38	10.45	9.89
11/4 13:30	645	175	264	1,206	1,219	1,243	1,038	1,554	1,776	1,556	1,899	1,590	1,427	1,672	1,599	6.73	4.17	4.34	9.73	9.87	9.59	9.22	9.29	10.26	9.12	10.47	9.35	8.72	9.91	9.07
11/4 13:40	845	273	341	1,367	1,397	1,257	1,051	1,039	1,520	1,597	1,926	1,473	1,217	1,575	1,566	7.69	4.96	4.85	10.30	10.46	9.26	9.21	7.63	9.98	9.50	10.40	9.12	8.43	9.62	9.05
11/4 13:50	898	175	540	1,441	1,413	1,332	1,097	1,432	1,855	1,589	1,992	1,632	1,441	1,858	1,891	7.60	3.96	5.51	10.52	10.49	9.59	9.36	8.85	10.60	9.19	10.59	9.48	8.95	10.24	9.84
11/4 14:00	827	156	624	1,478	1,571	1,366	1,234	1,150	1,916	1,692	2,003	1,982	1,885	2,007	2,011	7.27	3.84	5.79	10.51	10.92	9.56	9.62	8.13	10.64	9.49	11.09	10.43	9.90	10.64	10.55
11/4 14:10	883	159	756	1,635	1,786	1,657	1,326	1,317	1,970	1,750	2,001	1,836	1,964	1,999	1,998	7.39	3.85	6.28	10.99	11.70	10.53	9.93	8.61	10.69	9.61	10.76	9.81	10.41	10.91	10.76
11/4 14:20	843	200	715	1,659	1,855	1,830	1,485	1,430	2,003	1,918	2,002	1,948	1,792	1,986	1,997	7.17	4.25	6.23	11.23	11.89	11.28	10.54	8.72	10.83	10.02	11.32	10.04	9.59	10.63	10.41
11/4 14:30	973	177	864	1,749	1,917	1,842	1,577	1,467	1,997	1,990	1,999	2,015	1,910	2,008	1,987	7.58	4.05	6.95	11.58	11.31	11.29	10.58	8.62	11.05	10.61	11.67	10.36	10.00	10.74	10.54
11/4 14:40	878	147	873	1,694	1,997	1,941	1,608	1,732	1,999	1,999	2,000	1,951	1,994	2,001	2,012	7.49	3.64	6.68	11.25	11.62	11.76	10.85	9.51	11.67	11.19	12.27	10.38	10.55	10.91	10.82
11/4 14:50	943	162	1,087	1,776	1,851	1,937	1,857	1,901	1,999	2,000	2,000	2,002	1,818	2,002	1,999	7.43	3.78	7.95	11.34	11.08	11.68	11.55	9.83	11.65	11.07	12.55	10.56	9.46	11.17	11.00
11/4 15:00	1,105	226	1,305	1,849	1,970	2,002	1,934	1,745	1,999	2,000	2,000	1,998	1,987	2,000	1,999	8.11	4.03	8.83	11.51	11.90	12.20	11.77	9.37	11.81	11.24	12.51	10.86	10.09	11.48	11.72
11/4 15:10	1,207	354	1,457	1,935	2,001	1,977	1,928	1,785	2,000	1,997	1,999	2,000	1,898	2,000	1,999	8.36	4.81	9.54	11.88	11.95	12.02	11.67	9.56	11.57	10.90	12.77	10.65	10.15	11.46	12.16
11/4 15:20	1,587	834	1,794	2,009																										

11/4 18:10	2,000	2,006	1,999	1,997	1,999	1,999	2,000	1,999	1,999	1,999	1,999	1,999	1,806	2,001	2,000	15.22	12.52	14.04	13.96	15.49	15.23	14.75	10.86	12.14	11.52	13.42	12.15	11.95	12.83	12.90
11/4 18:20	1,999	2,000	1,999	2,002	1,999	1,999	1,999	2,000	2,000	2,000	1,999	1,816	2,000	2,000	2,000	15.24	12.41	13.73	14.03	15.80	15.11	14.47	11.15	12.53	11.85	13.97	12.64	12.58	13.68	12.91
11/4 18:30	1,999	1,999	1,999	1,999	1,999	2,000	1,999	1,999	2,000	2,000	2,000	1,848	2,001	2,000	2,000	15.39	12.94	13.65	13.95	15.18	14.72	14.64	11.29	12.50	11.55	13.08	11.72	11.67	12.89	12.44
11/4 18:40	1,999	1,998	2,000	1,999	1,999	2,000	1,999	1,995	1,999	2,000	2,000	1,882	2,000	2,000	2,000	15.63	12.72	13.57	13.82	15.27	14.29	13.94	11.20	12.41	11.88	13.76	11.88	12.24	13.02	12.88
11/4 18:50	1,999	2,000	2,000	1,997	2,000	2,000	1,999	1,994	2,000	2,000	1,999	1,890	1,999	2,000	2,000	14.73	12.08	13.03	13.32	14.79	14.28	13.95	10.94	12.36	11.65	13.02	12.16	11.93	12.92	12.37
11/4 19:00	1,999	2,000	2,000	2,002	1,999	1,999	1,999	2,008	2,001	2,000	2,000	1,890	2,000	1,999	1,999	15.06	12.19	13.26	13.52	15.15	14.68	14.32	10.82	11.63	11.37	12.62	11.82	11.50	12.59	12.18
11/4 19:10	1,999	1,983	1,999	1,999	1,999	2,000	2,000	1,999	1,999	1,999	2,000	1,889	2,000	1,999	1,999	14.27	11.70	13.24	13.60	15.18	14.69	14.38	11.45	12.22	12.13	12.55	11.36	11.68	12.32	12.19
11/4 19:20	2,000	2,005	1,999	1,999	1,999	1,999	1,999	1,999	2,000	1,999	2,000	1,889	2,000	1,999	1,999	14.83	12.11	13.53	13.95	15.16	14.92	14.23	11.39	12.58	11.85	12.86	12.00	11.97	12.72	12.97
11/4 19:30	1,999	1,999	1,999	1,999	1,999	2,000	1,999	1,983	1,999	1,999	1,999	2,000	1,889	1,999	2,000	15.10	12.46	13.86	14.30	15.73	15.54	15.09	10.75	11.97	10.95	12.45	11.28	11.18	12.28	11.74
11/4 19:40	1,999	1,999	1,999	1,999	1,999	1,999	2,000	1,971	1,999	2,000	2,000	1,883	2,001	1,999	1,999	15.46	12.31	13.77	14.03	15.40	14.81	14.61	10.37	12.16	11.37	12.68	11.12	10.91	11.66	11.41
11/4 19:50	1,999	1,998	1,999	2,000	1,999	1,999	2,000	1,973	1,999	2,001	2,000	1,889	2,000	1,999	1,999	15.14	12.50	13.68	14.15	15.48	15.10	14.72	10.58	11.77	11.21	12.00	11.00	10.73	11.98	11.73
11/4 20:00	1,999	1,993	2,000	1,999	1,999	2,000	1,999	1,922	1,999	1,999	1,999	1,889	2,000	1,999	1,999	14.56	11.98	13.39	13.51	15.15	14.98	14.36	10.02	11.69	11.09	12.29	11.35	11.16	12.18	11.04
11/4 20:10	1,999	2,001	1,999	1,999	1,999	2,000	2,000	1,866	1,998	1,998	2,001	1,997	1,889	2,000	1,999	14.56	11.96	13.52	14.04	15.25	14.79	14.12	9.62	11.47	10.86	11.78	10.43	10.82	11.87	11.42
11/4 20:20	374	381	413	359	387	403	346	384	378	401	419	405	395	360	377	14.13	11.53	13.63	13.75	15.03	14.61	14.85	11.41	11.09	11.62	12.54	11.69	11.58	12.28	11.53
11/4 20:30	-19	-18	-20	-18	-36	-21	-36	-22	-21	-21	-21	-19	-17	-17	-20	14.36	11.77	14.15	14.32	15.20	14.63	14.92	12.18	11.64	11.01	12.21	10.97	11.32	11.68	11.16
11/4 20:40	867	836	869	864	856	875	858	640	843	857	717	731	720	863	860	14.10	11.93	13.29	13.36	14.42	14.11	14.10	10.91	11.42	11.20	12.25	10.63	11.00	11.79	11.29
11/4 20:50	1,999	1,912	2,000	2,000	1,999	1,998	1,997	1,513	1,960	1,914	2,016	2,008	2,011	1,999	1,999	13.50	11.04	12.31	12.57	13.38	13.77	13.46	8.60	10.54	10.19	10.97	10.40	10.64	11.42	11.23
11/4 21:00	1,999	1,844	1,999	1,999	1,999	2,000	1,988	1,381	1,940	1,967	2,000	2,001	1,999	1,998	1,999	13.09	10.97	11.88	12.27	13.59	13.57	12.70	8.42	10.36	10.18	11.12	10.79	10.51	11.35	11.29
11/4 21:10	1,999	1,867	2,000	2,001	1,999	1,999	1,999	1,731	1,889	1,930	2,000	2,000	1,998	2,000	1,999	13.40	10.96	12.35	12.32	13.57	13.77	13.25	9.26	9.90	9.99	11.17	10.69	10.64	11.44	11.36
11/4 21:20	1,999	1,845	1,999	1,999	1,999	1,998	1,999	1,472	1,947	1,935	1,999	2,000	2,000	1,999	1,999	13.34	10.89	11.79	12.07	13.15	13.23	12.61	8.54	10.45	10.11	11.16	10.80	11.09	11.71	11.86
11/4 21:30	1,998	1,697	1,987	1,980	1,999	2,000	1,999	1,451	1,981	2,007	1,999	2,000	1,999	1,999	2,000	12.66	10.29	11.21	11.49	12.64	12.67	12.47	8.61	10.26	10.37	11.42	11.07	10.91	11.97	11.32
11/4 21:40	1,999	1,656	1,961	1,979	1,999	1,999	2,000	1,178	1,970	1,930	2,000	2,000	1,997	1,999	2,000	12.57	10.27	11.21	11.38	12.44	12.65	12.08	7.90	10.48	10.15	11.06	10.37	10.76	11.47	10.49
11/4 21:50	1,999	1,577	1,877	1,886	2,000	1,995	1,939	1,202	1,943	1,857	1,999	1,999	1,995	2,000	1,977	12.72	9.97	10.83	11.10	12.48	12.68	12.02	8.18	10.34	9.83	11.13	10.36	10.47	11.63	10.73
11/4 22:00	1,999	1,649	1,977	1,938	1,999	2,004	2,006	1,358	1,949	2,000	2,000	2,007	2,000	2,009	2,009	12.74	10.09	11.22	11.42	12.53	12.46	12.02	8.36	10.38	10.38	11.20	10.38	10.60	11.43	10.58
11/4 22:10	1,999	1,593	1,965	2,006	1,999	2,000	2,000	1,289	1,999	1,962	1,999	1,999	1,977	2,000	2,002	12.46	10.14	11.20	11.69	12.57	12.65	12.22	8.15	10.47	10.15	11.40	10.52	10.71	11.23	10.77
11/4 22:20	1,999	1,621	2,011	2,001	1,999	1,999	1,998	1,355	1,999	2,000	1,999	1,999	1,891	1,999	1,999	12.70	10.21	11.44	11.76	12.91	12.90	12.31	8.44	10.70	10.35	11.22	10.16	10.42	11.16	10.45
11/4 22:30	1,999	1,780	2,002	1,999	1,999	1,999	2,000	1,275	1,999	1,971	1,999	1,999	1,828	2,000	2,000	13.03	10.45	11.49	11.81	13.12	12.80	12.42	8.28	10.56	10.11	11.13	10.25	10.42	11.38	11.12
11/4 22:40	1,999	1,765	2,000	1,999	1,999	1,999	2,000	1,356	2,001	2,014	1,999	1,993	1,816	1,999	2,000	13.13	10.57	11.67	12.07	13.23	13.23	12.86	8.38	10.54	10.53	11.12	10.63	11.18	11.83	11.73
11/4 22:50	548	452	595	552	595	601	551	502	563	561	610	607	579	548	562	12.88	10.56	12.26	12.02	13.44	13.55	13.07	10.43	10.21	10.85	11.62	10.43	10.95	11.58	10.90
11/4 23:00	-20	-10	-20	-19	-38	-20	-37	-11	-22	-22	-20	-20	-17	-20	-20	13.85	11.00	12.73	12.43	14.20	14.05	13.58	10.77	10.29	10.67	11.99	10.84	11.59	12.01	10.86
11/4 23:10	968	760	911	944	959	-11	957	927	847	959	963	959	869	964	964	12.44	10.11	11.43	11.85	13.62	13.40	13.16	10.48	10.29	10.59	11.40	10.85	11.17	11.64	10.59
11/4 23:20	1,999	1,618	1,976	1,996	1,999	1,883	1,999	1,998	2,001	2,000	1,999	2,003	1,999	1,999	2,000	12.01	10.30	11.32	11.90	13.18	13.16	12.32	10.66	10.43	9.98	10.73	10.49	10.39	11.10	10.24
11/4 23:30	1,999	1,632	2,015	1,992	1,998	1,999	1,999	1,707	1,946	1,974	1,999	2,000	1,998	1,998	1,978	12.45	10.37	11.56	11.87	13.20	13.16	12.09	9.81	10.34	10.30	10.71	10.06	10.12	10.80	10.03
11/4 23:40	1,999	1,577	1,983	1,999	1,999	2,000	2,000	1,504	1,948	1,951	1,999	1,964	1,983	2,001	2,015	12.38	10.26	11.48	11.98	13.49	13.06	12.13	9.21	10.59	10.15	10.80	9.82	9.98	10.92	10.38
11/4 23:50	1,999	1,525	1,991	1,970	1,999	1,999	1,999	1,561	1,860	1,932	1,999	2,011	2,001	1,999	2,000	12.67	10.24	11.55	11.78	13.40	12.79	11.99	9.31	9.88	10.10	10.99	10.25	10.46	11.33	10.32
11/5 0:00	1,999	1,653	2,021	2,019	1,999	1,998	2,000	1,214	1,619	1,793	1,999	2,000	2,000	1,999	1,999	13.10	10.69	11.99	12.45	14.00	13.38	12.57	8.38	9.26	9.71	10.47	10.32	10.64	11.35	10.33
11/5 0:10	1,999	1,700	1,999	1,999	1,999	1,999	1,999	1,434	1,593	1,765	1,999	1,996	1,999	2,000	1,999	13.20	10.81	12.25	12.89	14.86	14.21	13.47	9.18	9.08	9.44	10.45	10.14	10.45	11.27	10.39
11/5 0:20	1,999	1,749	1,993	1,996	1,999	1,999	1,999	1,345	1,508	1,656	2,000	1,927	1,968	2,000	1,999	13.07	10.72	12.13	12.72	14.70	14.34	13.68	8.93	9.42	9.29	10.20	9.91	10.22	10.72	10.16
11/5 0:30	1,999	1,740	2,006	2,002	1,999	1,999	1,999	1,502	1,514	1,534	1,999	1,770	1,860	2,000	1,973	12.68	10.79	12.10	12.52	13.96	13.47	12.42	9.44	9.32	8.85	10.43	9.29	9.83	10.59	9.97
11/5 0:40	1,999	1,964	1,999	1,999	1,999	1,999	1,999	1,673	1,663	1,602	1,999	1,																		

11/5 3:50	1,992	1,689	1,929	1,878	1,999	1,935	1,815	1,410	1,771	1,862	2,000	2,001	1,653	2,000	2,000	12.00	10.89	11.70	12.00	12.69	13.35	12.52	8.93	9.79	9.70	10.28	10.21	10.51	11.00	10.54
11/5 4:00	2,000	1,801	2,009	1,975	1,999	2,021	2,010	1,520	1,985	1,902	1,999	1,998	1,652	2,000	1,999	12.05	11.17	11.57	12.34	12.99	13.87	12.77	9.16	10.03	9.47	10.26	10.29	10.45	11.01	10.56
11/5 4:10	1,999	1,788	2,003	1,994	1,999	1,998	1,999	1,475	1,670	1,700	1,986	1,991	1,652	2,001	1,998	11.82	11.63	12.15	12.62	13.07	13.58	12.88	9.31	9.24	9.13	9.82	10.16	10.50	10.96	10.40
11/5 4:20	1,999	1,790	1,999	1,972	1,999	1,999	2,000	1,273	1,562	1,680	2,014	2,008	1,652	2,000	1,999	12.08	11.84	12.39	12.67	13.26	12.62	12.02	8.75	9.11	9.28	9.95	10.23	10.62	11.08	10.50
11/5 4:30	1,999	1,839	2,000	2,014	1,999	2,000	1,989	1,121	1,620	1,768	1,999	2,000	1,652	1,999	1,999	13.57	11.28	12.91	13.19	13.69	12.97	11.97	8.06	9.45	9.71	10.15	10.41	10.90	11.43	10.94
11/5 4:40	1,999	1,989	1,999	1,999	1,999	1,999	2,009	1,409	1,827	1,914	1,999	1,999	1,652	2,001	1,999	14.07	11.24	13.56	13.44	14.41	13.54	12.39	9.02	9.89	10.07	10.27	10.49	11.04	11.63	11.09
11/5 4:50	1,999	1,961	1,999	2,000	1,999	1,999	2,000	1,601	2,003	2,016	1,999	1,999	1,652	2,001	1,999	14.88	11.20	13.12	13.23	15.00	14.21	13.20	9.74	10.24	10.28	10.64	10.72	11.12	12.02	11.26
11/5 5:00	1,999	1,830	1,999	1,999	1,999	1,999	1,999	1,631	1,994	1,999	1,999	1,999	1,652	1,999	1,999	15.20	10.84	12.76	13.29	15.52	15.34	14.55	9.94	10.28	10.23	10.70	10.52	10.89	11.85	11.37
11/5 5:10	1,999	1,767	2,000	1,999	1,999	1,999	1,999	1,586	1,894	1,846	1,999	1,999	1,652	2,000	1,999	14.54	10.63	12.94	13.91	15.88	16.10	15.29	9.65	10.12	9.82	10.38	10.29	10.92	11.83	11.74
11/5 5:20	1,999	1,950	1,999	1,999	1,999	1,999	1,999	1,170	1,676	1,755	1,999	1,999	1,652	2,001	1,999	14.31	11.12	13.62	14.70	16.26	16.15	15.67	8.31	9.78	9.76	10.49	10.30	10.67	11.58	11.15
11/5 5:30	1,999	1,998	1,999	1,999	1,999	1,999	1,999	1,185	1,754	1,817	2,000	1,988	1,652	2,000	1,998	14.67	11.44	13.43	14.13	15.67	15.46	14.92	8.43	10.05	9.75	10.33	10.07	10.36	11.23	10.47
11/5 5:40	1,999	2,002	1,999	1,999	1,999	1,999	1,999	1,349	1,794	1,740	2,000	1,830	1,652	1,894	1,727	13.50	11.92	13.08	13.80	14.52	14.97	14.53	8.84	10.15	9.43	10.79	9.39	9.57	10.43	9.37
11/5 5:50	1,999	1,998	1,999	1,999	1,999	1,999	1,999	1,405	1,756	1,727	2,000	1,837	1,652	2,000	1,767	13.00	11.65	12.74	13.41	14.20	14.65	13.94	8.88	10.03	9.39	10.72	9.36	9.50	10.58	9.51
11/5 6:00	1,999	1,975	1,999	1,999	1,999	1,999	1,998	1,499	1,840	1,827	1,999	1,913	1,652	2,000	1,869	12.65	11.23	12.20	12.90	13.76	14.11	13.34	9.37	10.18	9.80	11.04	9.69	9.56	10.65	9.85
11/5 6:10	1,999	1,938	1,999	1,999	1,999	1,999	1,999	1,992	2,016	1,948	1,999	1,956	1,652	1,999	1,996	12.59	10.80	11.87	12.23	13.07	13.41	12.80	10.69	10.82	10.12	11.10	9.78	10.03	11.25	10.05
11/5 6:20	1,999	1,934	1,999	1,998	1,999	1,999	1,981	1,894	1,964	1,751	1,999	1,792	1,652	2,000	1,911	12.64	10.71	11.93	12.37	12.99	12.97	12.33	10.37	10.32	9.55	10.65	9.32	9.80	10.88	9.76
11/5 6:30	1,999	1,852	2,000	1,999	1,999	2,000	2,012	1,711	1,975	1,877	2,000	1,944	1,652	1,999	1,898	11.99	10.57	11.87	12.18	12.81	12.97	12.61	9.87	10.30	9.98	10.96	9.81	9.92	10.93	10.01
11/5 6:40	2,000	1,771	1,999	1,977	1,986	1,878	1,656	1,536	1,832	1,741	1,973	1,876	1,652	1,935	1,804	11.86	10.32	11.32	11.73	12.21	11.63	11.11	9.31	9.98	9.57	10.72	9.72	9.87	10.52	9.57
11/5 6:50	1,999	1,759	1,995	1,928	2,012	1,829	1,764	1,531	1,739	1,790	1,993	1,805	1,648	1,879	1,645	11.99	10.44	11.31	11.46	12.07	12.08	11.93	9.49	9.75	9.69	10.75	9.36	9.64	10.11	9.12
11/5 7:00	1,994	1,627	1,890	1,839	1,944	1,750	1,644	1,355	1,704	1,670	1,985	1,740	1,612	1,783	1,436	11.67	10.23	10.92	11.36	11.89	11.52	11.40	8.92	9.75	9.42	10.65	9.34	9.13	10.15	8.63
11/5 7:10	2,003	1,661	1,971	1,911	2,020	1,751	1,714	1,296	1,727	1,662	2,002	1,656	1,545	1,648	1,422	11.76	10.53	11.33	11.67	12.24	11.53	11.25	8.76	9.65	9.50	10.94	9.26	9.06	9.61	8.63
11/5 7:20	2,002	1,665	1,965	1,864	1,901	1,786	1,594	1,200	1,595	1,489	1,909	1,700	1,539	1,796	1,403	11.86	10.42	11.18	11.43	11.66	11.52	11.33	8.49	9.50	8.93	10.33	9.29	9.25	10.20	8.73
11/5 7:30	1,999	1,632	1,929	1,820	1,864	1,763	1,577	1,633	1,710	1,753	1,954	1,769	1,598	1,827	1,574	12.06	10.86	11.19	11.52	11.63	11.67	11.15	9.75	9.74	9.80	10.57	9.45	9.57	10.25	9.03
11/5 7:40	2,000	1,700	1,961	1,824	1,820	1,629	1,567	1,827	1,912	1,913	2,017	2,007	1,589	1,925	1,544	12.38	10.64	11.34	11.41	11.71	10.81	11.17	10.25	10.49	10.21	11.38	10.31	9.58	10.41	8.86
11/5 7:50	1,999	1,661	1,933	1,765	1,847	1,714	1,628	1,872	1,925	1,879	2,000	1,927	1,572	1,877	1,680	12.50	10.47	11.40	11.60	11.72	11.01	11.02	10.24	10.41	10.12	10.90	9.84	9.61	10.49	9.35
11/5 8:00	1,999	1,670	1,986	1,833	1,947	1,783	1,781	1,539	1,653	1,865	1,949	1,807	1,559	1,891	1,924	12.78	10.77	12.02	12.36	12.72	11.71	11.76	9.48	9.98	10.03	10.69	9.81	9.47	10.27	10.08
11/5 8:10	1,978	1,463	1,760	1,712	1,895	1,721	1,724	1,246	1,652	1,738	1,988	1,858	1,546	1,929	1,676	12.02	9.74	10.87	11.37	12.14	11.16	11.20	8.47	9.93	9.77	10.72	9.80	9.58	10.37	9.35
11/5 8:20	1,861	1,407	1,702	1,616	1,757	1,524	1,552	1,459	1,697	1,615	1,862	1,762	434	1,778	1,512	11.42	9.69	10.66	11.17	11.56	10.28	10.75	8.91	10.00	9.44	10.19	9.54	9.52	9.98	8.93
11/5 8:30	1,727	1,242	1,473	1,455	1,568	1,268	1,328	1,039	1,176	1,314	1,530	1,481	-14	1,493	1,316	11.00	9.21	9.76	10.40	10.66	9.21	9.85	7.94	8.83	8.49	9.51	8.97	8.96	9.18	8.42
11/5 8:40	1,738	1,166	1,445	1,284	1,477	1,398	984	1,396	1,511	1,403	1,634	1,474	-13	1,482	1,246	10.92	9.24	9.54	9.45	10.15	9.69	9.04	9.24	9.56	8.87	9.91	8.76	8.80	9.19	8.34
11/5 8:50	1,415	822	1,049	1,016	1,275	957	910	820	1,212	1,123	1,203	1,098	-12	1,202	1,029	10.36	8.16	8.59	8.83	9.85	8.35	8.88	7.43	8.85	8.18	8.70	8.03	8.69	8.59	7.78
11/5 9:00	963	356	672	723	811	917	800	348	1,060	866	959	1,028	-11	1,317	1,097	8.67	5.34	7.34	8.11	8.39	8.68	8.42	5.59	8.49	7.50	8.16	7.85	8.86	9.14	8.08
11/5 9:10	1,025	356	925	949	1,069	1,026	899	343	923	897	1,063	971	-12	999	976	8.72	5.06	8.27	8.23	9.34	9.17	8.55	5.59	8.22	7.64	8.47	7.84	9.40	8.00	7.83
11/5 9:20	758	331	902	1,024	879	1,022	833	343	816	782	887	845	[-11059]	828	1,006	7.37	4.83	8.31	9.34	8.61	8.90	8.50	5.75	7.72	7.44	8.03	7.65	[-11059]	7.32	7.87
11/5 9:30	847	360	851	939	961	1,006	963	356	893	860	1,103	925	[-11059]	980	865	8.14	5.64	7.74	8.90	8.95	8.74	8.97	5.56	7.88	7.58	8.48	7.73	[-11059]	8.02	7.41
11/5 9:40	891	356	774	828	912	1,077	868	354	655	852	1,083	931	[-11059]	1,163	897	8.09	5.11	7.68	8.32	8.35	8.97	8.34	5.75	7.15	7.62	8.50	7.76	[-11059]	8.59	7.77
11/5 9:50	769	361	845	884	942	792	669	516	802	994	1,378	988	[-11059]	1,068	1,232	7.71	5.27	7.83	8.63	8.35	7.97	7.73	6.39	7.57	7.84	9.27	7.88	[-11059]	8.33	8.55
11/5 10:00	788	241	733	951	1,167	950	1,014	414	938	989	1,147	958	[-11059]	1,133	1,134	7.53	4.28	7.54	9.02	9.36	8.88	9.27	6.19	8.27	8.01	8.77	7.71	[-11059]	8.65	8.27
11/5 10:10	575	193	792	1,029	1,173	1,056	826	592	1,296	1,460	1,773	1,500	[-11059]	1,211	1,115	6.57	4.42	7.84	8.78	9.19	8.82	8.26	6.75	9.16	9.15	10.12	9.25	[-11059]	8.71	8.41
11/5 10:20	849	415	681	790	1,359	1,213	1,045	280	973	1,006	1,054	1,218	[-11059]	1,253	1,225	7.72	5.97	6.95	7.59	9.90	9.30	9.03	5.07	8.28	8.03	8.59	8.66	[-11059]	8.88	8.50
11/5 10:30	869	351	835	910	1																									

11/5 13:40	1,117	342	337	1,612	1,544	1,604	1,404	1,237	1,560	1,641	1,955	1,660	1,500	1,774	1,683	8.64	5.17	4.91	10.37	11.01	10.55	10.40	8.44	10.18	9.97	10.54	9.68	9.53	10.24	9.60
11/5 13:50	1,097	288	543	1,622	1,652	1,738	1,575	1,392	1,727	1,835	2,014	1,976	1,894	2,002	1,941	8.49	5.15	5.69	10.29	11.37	11.09	10.97	8.78	10.52	10.36	11.33	10.38	10.43	11.27	10.61
11/5 14:00	893	118	546	1,603	1,607	1,599	1,547	1,241	1,737	1,785	1,999	1,855	1,931	1,999	1,999	7.67	3.81	5.70	10.85	11.14	10.45	11.26	8.46	10.15	10.06	11.42	9.99	10.40	11.34	10.84
11/5 14:10	959	140	627	1,647	1,642	1,635	1,699	1,375	1,681	1,662	2,000	1,855	1,848	1,997	2,001	8.03	3.93	6.07	10.82	11.36	10.58	11.31	8.59	10.12	9.65	11.35	9.91	10.06	11.29	11.14
11/5 14:20	1,208	305	456	1,587	1,671	1,746	1,683	1,499	1,744	1,604	1,904	1,723	1,677	1,907	1,827	9.03	5.38	5.31	10.67	11.31	11.07	11.61	9.13	10.22	9.36	10.71	9.69	9.50	10.55	10.11
11/5 14:30	789	173	657	1,521	1,532	1,601	1,549	1,241	1,807	1,728	2,013	1,792	1,749	1,963	1,905	7.07	3.96	6.50	10.17	10.48	11.09	10.64	8.44	10.27	9.80	10.94	9.68	9.78	10.98	10.42
11/5 14:40	618	147	699	1,355	1,569	1,469	1,525	1,229	1,756	1,684	1,984	1,961	1,905	1,998	1,978	6.71	3.62	6.67	9.55	10.66	10.02	10.40	8.42	9.98	9.66	11.32	10.41	10.05	11.22	10.86
11/5 14:50	845	225	945	1,384	1,413	1,400	1,418	1,128	1,935	1,707	2,015	1,966	1,955	1,985	2,015	7.53	4.33	7.83	9.61	10.00	9.82	9.85	7.98	10.40	9.56	11.38	10.59	10.26	11.21	11.59
11/5 15:00	882	247	1,138	1,497	1,481	1,255	1,285	1,215	1,986	1,717	2,000	1,911	1,842	2,000	1,978	7.54	4.53	8.68	10.27	10.15	9.34	9.30	8.20	10.93	9.61	11.06	10.31	10.05	11.41	10.97
11/5 15:10	953	252	1,137	1,540	1,466	1,370	1,501	1,134	1,893	1,623	1,999	1,903	1,740	1,961	1,922	7.76	4.26	8.54	10.43	10.09	9.70	10.07	8.03	10.30	9.47	10.91	10.31	9.68	10.73	10.48
11/5 15:20	773	173	961	1,444	1,494	1,387	1,282	970	1,802	1,653	1,993	1,801	1,511	1,941	1,992	6.99	3.87	8.07	10.23	10.29	9.77	9.96	7.64	10.02	9.49	10.85	9.82	9.00	10.60	10.73
11/5 15:30	1,008	254	1,070	1,342	1,494	1,398	1,230	1,134	1,765	1,534	1,997	1,788	1,716	1,845	1,968	7.96	4.36	8.52	9.83	10.21	9.64	9.94	8.42	10.13	9.24	10.65	9.71	9.44	10.30	10.70
11/5 15:40	1,004	288	1,229	1,434	1,643	1,480	1,296	992	1,730	1,650	1,801	1,429	1,546	1,904	1,933	7.75	4.58	9.18	9.96	10.61	10.00	10.26	7.90	9.98	9.52	10.03	8.88	9.10	10.44	10.18
11/5 15:50	1,189	358	1,334	1,539	1,787	1,533	1,412	986	1,891	1,503	1,927	1,736	1,563	1,791	1,850	8.52	5.08	9.54	10.43	11.22	10.38	10.71	7.68	10.37	9.02	10.59	9.74	9.17	10.19	9.99
11/5 16:00	1,336	451	1,452	1,680	1,871	1,683	1,621	891	1,642	1,344	1,786	1,504	1,485	1,727	1,718	9.37	5.70	9.90	10.74	11.50	10.79	11.35	7.39	9.71	8.79	10.05	9.05	8.95	10.00	9.59
11/5 16:10	1,447	575	1,460	1,567	1,775	1,607	1,430	1,256	1,753	1,518	1,952	1,604	1,443	1,887	1,740	9.81	6.19	9.85	10.33	11.02	10.44	10.67	8.46	9.85	9.06	10.65	9.34	8.76	10.32	9.71
11/5 16:20	1,459	607	1,582	1,638	1,869	1,751	1,574	1,473	1,927	1,825	2,000	1,718	1,752	2,006	1,984	10.00	6.39	10.35	10.71	11.46	11.15	11.36	9.09	10.63	9.72	11.14	9.48	9.61	10.85	10.56
11/5 16:30	1,586	772	1,671	1,697	1,959	1,856	1,748	1,520	1,824	1,716	1,976	1,763	1,730	1,986	1,976	10.52	7.20	10.50	10.79	11.76	11.60	11.79	9.40	10.33	9.55	11.07	9.65	9.49	10.73	10.37
11/5 16:40	1,570	830	1,657	1,719	1,986	1,887	1,768	1,221	1,803	1,557	1,860	1,474	1,321	1,474	1,873	10.58	7.40	10.41	10.83	11.91	11.61	11.99	8.12	10.14	9.24	10.38	8.99	8.55	9.11	10.01
11/5 16:50	1,600	836	1,648	1,712	2,003	1,905	1,817	1,406	1,866	1,531	1,944	1,636	1,358	1,593	1,942	10.66	7.50	10.29	10.72	11.85	11.71	12.05	8.84	10.31	8.95	10.44	9.44	8.70	9.44	10.24
11/5 17:00	1,604	854	1,690	1,783	1,991	1,915	1,865	1,235	1,767	1,484	1,812	1,533	1,320	1,594	1,899	10.64	7.65	10.44	10.96	11.72	11.68	12.50	8.32	9.95	9.11	10.08	8.92	8.66	9.48	10.05
11/5 17:10	1,621	852	1,592	1,712	1,958	1,890	1,758	1,398	1,823	1,501	1,857	1,407	1,092	1,232	1,364	10.66	7.58	10.11	10.78	11.61	11.67	11.86	8.71	10.13	8.94	10.20	8.79	8.00	8.57	8.43
11/5 17:20	1,635	884	1,664	1,663	1,939	1,865	1,731	1,317	1,780	1,499	1,874	1,387	1,205	1,445	1,107	10.94	7.83	10.32	10.59	11.61	11.69	12.16	8.39	9.83	8.99	10.23	8.64	8.38	9.32	8.02
11/5 17:30	1,612	752	1,495	1,568	1,814	1,611	1,572	1,675	1,918	1,667	1,982	1,520	1,429	1,444	1,136	10.85	7.27	9.91	10.42	11.27	10.99	11.39	9.38	10.29	9.44	10.77	9.09	8.87	9.12	8.12
11/5 17:40	1,613	735	1,368	1,473	1,733	1,608	1,555	1,603	1,959	1,872	2,016	1,705	1,428	1,223	962	10.79	7.27	9.36	10.12	10.84	10.53	11.34	9.22	10.56	10.15	10.93	9.42	8.81	8.54	7.78
11/5 17:50	1,577	680	1,292	1,293	1,670	1,524	1,478	1,490	1,875	1,589	1,983	1,529	1,497	1,451	1,192	10.66	6.78	9.24	9.54	10.73	10.23	10.83	9.03	10.22	9.33	10.70	9.12	8.95	9.27	8.21
11/5 18:00	1,720	895	1,423	1,502	1,828	1,731	1,683	1,622	1,968	1,779	2,011	1,619	1,381	1,569	1,409	10.83	8.08	9.59	10.15	11.10	11.52	11.55	9.39	10.62	9.88	11.06	9.18	8.63	9.61	8.92
11/5 18:10	1,746	971	1,534	1,616	1,913	1,784	1,738	1,416	1,925	1,801	1,995	1,525	1,399	1,541	1,338	11.09	8.62	10.00	10.54	11.41	12.15	12.26	8.71	10.43	9.85	11.05	8.97	8.73	9.44	8.51
11/5 18:20	1,550	853	1,453	1,510	1,829	1,736	1,717	1,499	1,873	1,771	1,950	1,478	1,251	1,361	1,207	10.65	8.06	9.66	10.21	11.21	11.77	12.40	9.03	10.31	9.73	10.77	8.85	8.30	9.07	8.32
11/5 18:30	1,536	858	1,389	1,553	1,846	1,746	1,674	1,322	1,746	1,454	1,956	1,491	1,173	1,349	1,138	10.29	8.14	9.60	10.41	11.15	12.24	12.06	8.49	9.93	8.94	10.56	8.86	8.15	8.74	8.01
11/5 18:40	1,336	793	1,256	1,442	1,723	1,626	1,652	1,234	1,745	1,559	1,939	1,341	1,087	1,190	1,054	9.61	7.70	9.10	9.93	10.94	11.42	11.75	8.14	9.83	9.26	10.68	8.57	7.98	8.47	7.90
11/5 18:50	1,175	703	1,111	1,236	1,640	1,711	1,699	986	1,381	1,461	1,892	1,303	1,289	1,510	1,122	8.99	7.49	8.53	9.51	11.25	11.44	11.60	7.60	8.81	8.91	10.42	8.52	8.62	9.25	8.16
11/5 19:00	1,215	724	1,146	1,393	1,696	1,833	1,869	890	1,459	1,584	1,823	1,466	1,299	1,504	1,460	9.08	7.25	8.64	10.06	11.25	11.64	11.81	7.35	9.23	9.35	10.34	8.93	8.40	9.30	9.09
11/5 19:10	996	643	993	1,073	1,677	1,706	1,797	822	1,622	1,602	1,903	1,521	1,463	1,692	1,512	8.23	6.90	8.06	8.48	11.02	11.07	11.61	7.21	9.52	9.23	10.50	8.94	8.80	9.71	8.84
11/5 19:20	1,146	642	1,051	1,266	1,598	1,613	1,634	891	1,966	1,739	2,000	1,760	1,682	1,761	1,446	8.92	7.27	8.29	9.34	10.85	10.76	11.14	7.24	10.40	9.72	11.15	9.61	9.46	10.02	8.90
11/5 19:30	1,114	593	995	1,122	1,516	1,631	1,566	1,153	1,916	1,921	1,999	1,928	1,734	1,838	1,783	8.84	6.95	8.26	9.12	10.85	11.09	11.09	7.99	10.22	10.10	11.33	10.16	9.47	10.04	9.71
11/5 19:40	1,355	885	1,287	1,341	1,699	1,729	1,686	950	1,954	1,878	2,000	1,783	1,687	1,740	1,248	9.43	8.59	9.21	9.67	11.27	11.08	11.24	7.26	10.38	10.03	11.12	9.51	9.38	9.87	8.28
11/5 19:50	1,301	793	1,136	1,311	1,617	1,733	1,632	949	1,906	1,906	1,999	1,899	1,888	1,942	1,784	9.38	8.17	8.75	9.69	10.91	11.28	11.26	7.21	10.21	10.05	11.58	10.07	10.01	10.53	9.74
11/5 20:00	1,570	971	1,265	1,449	1,831	1,832	1,798	940	1,872	1,797	2,000	1,952	1,929	2,012	1,920	10.06	8.74	9.11	9.95	11.50	11.27	11.49	7.27	10.30	9.79	11.36	10.07	10.03	10.76	10.17
11/5 20:10	1,621	1,080	1,411	1,463	1,806	1,821	1,759	926	1,747	1,682	1,995	1,862	1,884	1,993	1,930	10.28	9.05	9.42	9.98	11.29	11.26	11.21	7.52	10.23	9.42	10.83	9.81	9.96	10.95	10.15
11/5 20:20	1,883	1,276	1,625																											

11/5 23:30	-17	-9	-14	-20	-36	-18	-31	-10	-9	-9	-10	-9	-9	-10	-9	10.40	9.67	11.11	11.23	11.67	11.41	11.13	8.43	8.70	7.91	9.52	7.84	8.84	8.69	7.39
11/5 23:40	904	750	898	945	1,100	1,089	964	503	789	735	999	680	781	844	637	10.01	8.68	9.51	9.91	10.97	11.05	11.33	7.83	8.81	8.37	9.59	8.03	8.52	9.00	7.68
11/5 23:50	1,267	1,005	1,268	1,338	1,615	1,602	1,447	704	1,118	961	1,384	863	1,055	1,241	1,071	9.56	8.05	8.91	9.27	10.36	10.66	11.42	7.06	8.56	7.76	9.09	7.22	7.93	8.64	7.91
11/6 0:00	1,180	821	1,143	1,098	1,464	1,436	1,331	752	1,358	1,207	1,761	1,065	1,268	1,473	1,280	9.15	7.62	8.59	9.22	9.68	9.59	10.96	7.04	9.30	8.53	10.06	7.71	8.52	9.31	8.30
11/6 0:10	1,306	943	1,156	1,113	1,400	1,319	1,307	563	1,549	1,491	2,008	1,334	1,449	1,779	1,479	9.38	7.95	8.64	9.51	9.51	9.00	10.09	6.13	9.72	9.08	10.63	8.36	9.02	10.17	9.01
11/6 0:20	1,389	1,033	1,285	1,238	1,450	1,462	1,481	520	1,612	1,455	1,905	1,379	1,364	1,814	1,520	9.56	8.17	9.16	9.94	10.35	10.44	11.10	5.63	9.91	9.00	10.37	8.62	8.72	10.28	9.17
11/6 0:30	1,457	1,089	1,380	1,297	1,494	1,475	1,481	668	1,581	1,508	1,930	1,385	1,340	1,659	1,517	9.78	8.39	9.39	10.27	10.87	10.24	10.88	6.56	9.66	9.32	10.47	8.63	8.72	9.74	9.13
11/6 0:40	1,460	1,039	1,327	1,278	1,484	1,489	1,472	717	1,576	1,503	1,942	1,318	1,342	1,717	1,544	9.89	8.25	9.56	10.30	10.89	10.57	11.24	6.74	9.85	9.41	10.54	8.61	8.79	10.00	9.14
11/6 0:50	1,452	1,092	1,349	1,317	1,542	1,559	1,539	690	1,492	1,331	1,674	1,239	1,281	1,548	1,329	9.82	8.43	9.50	10.37	11.05	11.15	11.56	6.39	9.48	8.81	9.96	8.15	8.59	9.47	8.63
11/6 1:00	1,313	1,051	1,352	1,305	1,567	1,565	1,599	630	1,345	1,245	1,694	1,186	1,133	1,508	1,391	9.39	8.25	9.40	10.35	11.14	11.27	11.58	6.43	9.23	8.70	9.89	8.16	8.23	9.47	8.80
11/6 1:10	1,291	995	1,241	1,218	1,511	1,557	1,521	666	1,173	1,105	1,422	1,093	1,202	1,431	1,253	9.22	8.10	9.17	10.03	10.90	11.14	11.46	6.38	8.63	8.21	9.20	7.96	8.49	9.23	8.42
11/6 1:20	1,509	1,133	1,413	1,372	1,637	1,634	1,635	370	1,146	1,086	1,607	1,009	1,111	1,654	1,507	9.80	8.45	9.37	10.13	10.91	11.12	11.60	4.79	8.38	8.08	9.79	7.70	7.98	9.68	9.16
11/6 1:30	1,508	1,130	1,429	1,392	1,627	1,689	1,696	365	1,488	1,352	1,985	1,407	1,309	1,666	1,538	9.72	8.70	9.41	9.86	10.72	10.66	11.15	5.04	9.14	8.58	10.64	8.76	8.68	10.22	8.99
11/6 1:40	964	690	908	918	1,049	1,120	992	239	1,043	987	1,324	1,016	965	980	940	10.01	8.86	9.77	9.93	10.74	10.46	10.91	6.49	9.67	9.48	10.64	9.24	9.04	9.97	9.19
11/6 1:50	-10	-10	-11	-13	-27	-12	-27	-11	-12	-12	-24	-11	-12	-10	-11	9.80	8.92	10.21	9.79	10.84	10.22	11.03	10.35	9.90	9.66	11.28	9.28	9.50	9.51	9.00
11/6 2:00	-9	-9	-9	-9	-25	-9	-24	-9	-9	-9	-13	-8	-8	-10	-9	10.06	9.24	10.08	9.73	10.69	10.16	10.52	9.62	9.44	9.10	10.63	8.88	9.24	9.30	9.06
11/6 2:10	1,257	997	1,193	1,166	1,446	471	1,384	535	1,251	1,226	1,520	1,075	1,041	1,220	1,200	9.41	8.40	8.84	9.41	10.13	9.75	9.80	6.01	9.29	8.73	9.48	8.30	8.14	8.86	8.46
11/6 2:20	565	404	487	459	601	649	640	313	363	326	388	304	394	531	551	6.98	5.65	5.98	6.18	7.04	6.87	7.29	5.83	5.90	5.39	6.29	5.30	5.84	6.57	6.69
11/6 2:30	1,386	857	1,413	1,404	1,415	1,380	1,198	629	1,160	1,187	1,304	1,236	1,163	1,246	1,198	10.64	8.89	9.99	10.37	10.27	9.89	9.33	7.01	8.88	9.01	10.26	9.30	8.96	9.51	9.21
11/6 2:40	1,765	1,405	1,632	1,621	1,810	1,706	1,610	499	1,258	1,251	1,583	1,073	1,254	1,396	1,340	10.82	9.59	10.21	10.64	11.47	10.95	11.50	5.86	9.00	8.60	9.62	7.85	8.52	9.00	8.62
11/6 2:50	1,301	1,012	1,273	1,312	1,656	1,665	1,685	406	1,169	1,189	1,515	1,143	1,145	1,404	1,266	9.62	8.05	9.02	9.89	10.91	11.25	11.80	5.36	9.00	8.59	9.37	8.34	8.34	9.18	8.49
11/6 3:00	1,291	1,058	1,275	1,262	1,547	1,552	1,510	579	1,383	1,349	1,703	1,331	1,310	1,543	1,541	10.18	8.58	9.32	10.24	10.88	11.33	11.73	5.89	9.58	9.05	9.80	8.71	8.64	9.32	9.04
11/6 3:10	1,271	1,067	1,275	1,241	1,527	1,521	1,504	758	853	890	1,109	805	874	955	843	10.21	8.58	9.19	9.99	10.86	11.19	11.76	7.23	8.21	7.76	8.43	7.32	7.52	8.02	7.26
11/6 3:20	1,333	1,055	1,314	1,304	1,610	1,574	1,549	594	915	871	1,210	1,028	1,071	1,254	1,085	9.99	8.53	9.22	10.02	10.84	10.87	11.36	6.11	8.21	7.69	8.64	8.01	8.13	8.71	8.13
11/6 3:30	1,268	971	1,201	1,215	1,530	1,524	1,557	461	1,111	1,140	1,400	1,148	1,154	1,384	1,381	9.52	8.32	8.84	9.35	10.28	10.21	10.80	5.67	8.59	8.50	9.25	8.17	8.39	9.01	8.78
11/6 3:40	1,365	1,060	1,338	1,358	1,696	1,647	1,685	407	951	959	1,267	1,067	1,065	1,236	1,201	9.65	8.48	9.37	9.52	10.51	10.48	10.91	5.39	8.19	7.95	8.76	7.95	7.98	8.67	8.32
11/6 3:50	1,565	1,276	1,516	1,484	1,789	1,779	1,819	435	1,007	1,002	1,294	1,083	1,056	1,280	1,238	10.12	9.12	9.87	9.92	10.82	10.99	11.52	5.69	8.28	7.98	8.85	7.90	8.04	8.82	8.31
11/6 4:00	1,609	1,313	1,606	1,649	1,930	1,864	1,897	428	1,041	1,012	1,305	1,111	1,116	1,345	1,230	10.16	9.04	10.24	10.30	11.16	11.26	11.54	5.28	8.39	7.99	9.00	7.98	8.14	8.93	8.36
11/6 4:10	1,490	1,154	1,451	1,477	1,810	1,762	1,818	455	1,147	1,159	1,625	1,219	1,192	1,472	1,394	10.02	8.94	9.87	10.01	11.13	10.94	11.28	5.53	8.63	8.33	9.60	8.29	8.28	9.27	8.66
11/6 4:20	1,528	1,226	1,545	1,536	1,852	1,833	1,862	449	1,168	1,112	1,503	1,061	1,037	1,396	1,328	10.01	9.12	10.02	10.14	11.17	11.22	11.57	5.56	8.64	8.27	9.38	7.88	7.92	8.99	8.51
11/6 4:30	1,560	1,271	1,560	1,609	1,904	1,908	1,963	450	1,124	997	1,365	1,000	984	1,160	1,180	10.02	9.20	10.10	10.38	11.35	11.53	12.01	5.41	8.45	7.90	9.03	7.71	7.73	8.30	8.15
11/6 4:40	1,519	1,356	1,746	1,760	2,001	1,973	1,982	598	1,351	1,288	1,663	1,073	1,036	1,345	1,357	9.80	9.24	10.49	10.73	11.69	11.84	11.72	6.43	8.95	8.83	9.91	8.01	7.86	8.92	8.61
11/6 4:50	1,627	1,427	1,822	1,738	1,999	2,010	2,010	810	1,400	1,407	1,845	1,273	1,091	1,486	1,485	9.97	9.33	10.75	10.50	11.73	11.97	12.09	6.98	9.00	8.95	10.36	8.53	8.17	9.23	9.01
11/6 5:00	1,687	1,461	1,824	1,854	2,010	2,003	2,000	877	1,345	1,437	1,881	1,519	1,379	1,727	1,602	10.29	9.38	10.73	10.89	11.78	11.91	11.96	7.52	8.86	9.07	10.42	8.92	8.76	9.87	9.13
11/6 5:10	1,747	1,524	1,855	1,893	2,001	1,993	1,977	780	1,646	1,672	1,992	1,659	1,841	2,002	1,907	10.52	9.53	10.68	11.06	11.78	11.92	12.08	6.95	9.63	9.63	10.79	9.28	9.86	10.72	9.88
11/6 5:20	1,673	1,540	1,776	1,687	1,915	1,903	1,828	687	1,581	1,659	1,903	1,681	1,698	1,968	1,887	10.36	9.60	10.56	10.86	11.58	11.52	11.84	6.58	9.47	9.48	10.56	9.35	9.34	10.60	9.84
11/6 5:30	1,435	1,280	1,548	1,492	1,774	1,756	1,665	375	1,275	1,275	1,477	1,220	1,355	1,511	1,476	9.52	9.09	9.90	10.56	11.15	10.91	11.49	5.59	8.75	8.47	9.43	8.16	8.58	9.39	8.83
11/6 5:40	1,381	1,150	1,410	1,424	1,697	1,667	1,599	687	1,104	1,037	1,235	885	1,012	1,202	1,341	9.38	8.51	9.40	10.28	10.85	10.57	11.10	7.12	8.14	8.05	8.82	7.28	7.75	8.25	8.43
11/6 5:50	1,360	1,115	1,417	1,392	1,720	1,575	1,596	927	927	1,043	1,203	865	945	971	941	9.29	8.35	9.46	9.80	10.59	10.34	10.83	7.74	8.06	8.07	8.75	7.47	7.59	7.77	7.35
11/6 6:00	1,148	1,114	1,361	1,434	1,692	1,598	1,534	740	720	1,194	1,486	989	850	1,002	924	8.65	8.39	9.19	10.02	10.65	10.44	10.74	6.98	7.18	8.46	9.35	7.83	7.33	7.95	7.43
11/6 6:10	1,183	1,007	1,273	1,317	1,633	1,498	1,546	609	971	1,316	1,329	856	1,097	794	1,031	9.28	8.16	9.02	9.78	10.50	10.16	10.89	6.75	8.37	8.69	9.23	7.28	7.94	7.20	7.82
11/6 6:20	1,214	987	1,369	1,271	1,598	1,439	1,486	653	737	1,354	1																			

11/6 9:10	1,590	1,209	1,530	1,491	1,858	1,814	1,911	1,012	1,847	1,873	1,999	1,841	1,911	1,892	1,985	10.68	9.37	10.03	10.02	11.98	11.72	12.85	8.00	10.67	10.61	12.31	10.85	11.30	11.19	11.31	
11/6 9:20	1,611	1,524	1,433	1,433	1,774	1,623	1,561	1,218	1,832	1,865	1,967	1,998	1,925	1,776	2,000	10.83	10.47	10.20	10.36	11.44	10.90	11.07	8.37	10.19	10.29	11.70	12.03	11.11	10.61	11.68	
11/6 9:30	1,946	1,716	1,974	1,839	1,758	1,728	1,527	1,233	1,525	1,738	1,998	1,990	1,801	1,655	1,986	12.19	11.04	12.50	12.42	11.95	11.35	10.99	8.55	9.57	10.23	12.17	11.65	10.46	10.21	11.66	
11/6 9:40	1,787	1,991	2,000	1,471	1,942	1,369	1,245	769	981	1,954	1,950	1,762	1,642	1,583	1,842	12.04	12.28	13.00	12.41	12.26	9.88	9.70	7.18	8.31	11.34	12.36	10.77	9.73	9.69	10.70	
11/6 9:50	1,931	1,838	1,785	[-11059]	1,549	1,952	1,887	1,061	1,286	1,235	1,503	1,851	1,603	1,673	1,613	12.13	11.30	11.25	[-11059]	10.72	12.77	13.11	8.13	8.67	8.58	9.97	10.70	9.54	10.26	9.43	
11/6 10:00	1,805	1,821	1,663	[-11059]	1,693	1,741	1,789	948	710	1,702	1,896	1,592	1,606	1,658	1,871	12.28	11.75	11.22	[-11059]	11.35	11.40	11.98	7.87	7.54	10.00	11.20	9.86	9.73	10.14	10.79	
11/6 10:10	1,545	1,641	1,798	[-11059]	1,440	1,618	1,614	946	1,197	1,488	1,667	1,794	1,720	1,745	1,826	10.78	10.48	11.33	[-11059]	10.59	11.10	11.34	7.63	8.86	9.23	10.34	10.62	10.09	10.92	10.69	
11/6 10:20	1,709	1,459	1,605	[-11059]	1,615	1,882	1,800	1,143	1,098	1,248	1,764	1,843	1,745	1,880	1,666	11.34	10.31	10.70	[-11059]	11.00	12.39	11.69	8.59	8.68	8.82	10.18	10.21	9.90	10.74	10.04	
11/6 10:30	1,557	1,636	1,863	[-11059]	1,815	1,972	1,981	1,549	1,673	1,452	1,885	1,270	1,269	1,765	1,783	10.91	10.75	11.24	[-11059]	11.96	12.92	12.87	9.62	10.38	9.27	10.95	8.64	8.74	10.43	9.85	
11/6 10:40	2,002	1,879	1,924	[-11059]	1,940	2,003	1,999	1,616	1,496	1,670	1,528	1,672	1,897	1,864	1,638	13.05	12.23	12.92	[-11059]	12.69	13.18	14.06	9.73	9.56	9.95	10.23	9.89	10.12	11.10	9.83	
11/6 10:50	1,963	1,963	1,999	[-11059]	1,990	1,994	1,971	1,465	1,924	1,850	1,976	1,873	2,015	1,979	1,956	12.91	12.23	12.90	[-11059]	12.91	13.47	12.76	9.35	10.96	10.81	11.72	11.48	11.95	12.28	11.42	
11/6 11:00	1,713	1,799	1,916	[-11059]	1,722	2,014	1,829	1,643	1,860	1,944	1,977	1,936	1,910	1,889	1,948	11.64	11.14	12.11	[-11059]	11.57	13.28	12.55	9.76	11.07	11.51	12.38	11.23	11.36	11.60	11.42	
11/6 11:10	1,972	1,896	1,889	[-11059]	1,761	1,982	2,002	1,290	1,721	1,985	1,993	1,904	2,014	2,004	1,784	13.13	11.82	11.95	[-11059]	12.02	13.45	13.85	8.81	10.54	11.78	12.15	11.07	12.08	12.15	10.59	
11/6 11:20	1,897	1,835	1,922	[-11059]	2,017	2,012	1,986	1,533	1,953	1,963	1,992	1,967	1,895	1,864	1,801	12.61	11.82	12.14	[-11059]	13.13	13.31	12.94	9.92	11.18	11.70	12.12	11.34	10.61	10.89	10.39	
11/6 11:30	1,691	1,607	1,943	[-11059]	1,947	1,608	1,814	1,458	1,204	1,598	1,944	1,612	1,477	1,267	1,677	12.00	10.70	11.94	[-11059]	12.18	10.98	11.98	9.27	8.75	9.57	10.94	9.54	9.22	8.73	9.82	
11/6 11:40	1,896	1,800	1,994	[-11059]	1,973	1,923	2,001	924	1,205	1,584	1,656	1,969	1,883	1,734	1,952	12.07	11.60	12.32	[-11059]	13.00	12.23	12.79	7.53	9.00	9.52	10.25	10.83	10.91	10.53	10.54	
11/6 11:50	1,835	1,764	1,826	[-11059]	1,737	1,921	1,872	745	1,451	1,885	1,958	1,979	1,814	1,886	1,711	12.02	11.44	11.63	[-11059]	11.69	12.23	12.05	7.40	9.52	10.59	11.17	11.15	10.24	10.80	9.96	
11/6 12:00	1,794	1,470	1,682	[-11059]	1,995	1,945	1,942	1,617	1,819	1,969	1,995	1,862	1,704	1,688	1,944	11.75	10.24	10.94	[-11059]	12.56	12.53	12.15	9.70	10.69	11.07	11.49	10.62	9.66	10.04	10.22	
11/6 12:10	1,705	1,380	1,516	[-11059]	1,984	2,012	1,958	1,160	1,610	1,747	1,893	1,978	1,938	1,795	1,856	11.19	9.88	9.89	[-11059]	12.82	13.01	12.50	8.28	10.16	10.11	10.87	11.22	10.57	10.36	10.32	
11/6 12:20	1,668	1,394	1,239	[-11059]	1,615	1,731	1,740	708	1,189	1,491	1,833	1,768	1,999	1,913	1,981	11.48	9.67	9.18	[-11059]	11.39	11.92	11.89	7.03	9.13	9.31	10.55	10.17	10.88	11.39	10.86	
11/6 12:30	1,354	1,276	1,300	[-11059]	1,830	1,788	1,879	1,450	1,895	1,824	1,812	1,852	1,784	1,911	2,001	10.32	9.41	9.49	[-11059]	11.39	12.38	12.57	9.36	10.93	10.83	11.61	10.81	10.03	10.75	11.14	
11/6 12:40	1,401	1,117	1,449	[-11059]	1,410	1,789	1,879	1,653	1,917	1,882	1,975	1,924	1,869	1,742	1,896	10.50	8.66	9.66	[-11059]	10.12	11.41	12.58	9.72	11.21	10.63	11.69	10.87	10.20	10.25	10.32	
11/6 12:50	1,416	1,500	1,726	[-11059]	1,448	1,550	1,561	1,677	1,644	1,978	1,973	1,925	2,005	1,789	1,901	10.87	10.21	10.70	[-11059]	10.50	10.32	11.07	9.89	9.98	11.08	11.62	10.41	11.02	10.46	10.25	
11/6 13:00	1,641	1,550	1,745	[-11059]	1,497	1,720	1,696	1,613	1,510	1,896	2,000	1,887	1,875	1,953	1,847	10.47	11.03	10.16	10.81	[-11059]	10.56	11.04	11.40	9.62	9.53	10.27	11.79	10.24	10.19	11.05	10.73
11/6 13:10	1,774	1,548	1,635	[-11059]	1,714	1,803	1,765	1,702	1,701	1,591	2,001	1,726	1,852	1,857	1,964	11.57	9.96	10.24	[-11059]	11.42	11.54	11.48	9.94	10.01	9.53	11.31	9.72	9.96	10.64	10.82	
11/6 13:20	1,782	1,692	1,794	[-11059]	1,882	1,830	1,910	1,551	1,402	1,462	1,909	1,681	1,955	1,911	1,817	11.63	10.58	10.98	[-11059]	11.83	11.90	11.87	9.42	9.12	9.19	10.63	9.74	10.43	10.74	9.99	
11/6 13:30	1,830	1,634	1,884	1,258	1,916	1,798	1,751	1,332	1,135	1,188	1,720	1,390	1,459	1,450	1,738	11.73	10.25	11.34	11.48	11.87	11.76	11.15	8.95	8.46	8.55	10.18	8.74	8.90	9.27	9.70	
11/6 13:40	1,593	1,525	1,667	355	1,676	1,719	1,710	1,283	1,035	1,270	1,755	1,259	1,239	1,343	1,188	11.22	9.83	10.52	10.14	11.33	11.69	11.44	9.00	8.31	8.83	9.94	8.50	8.53	9.02	8.28	
11/6 13:50	1,461	1,417	1,588	187	1,649	1,661	1,788	1,351	1,183	1,324	1,726	1,517	1,314	1,387	1,401	10.54	9.51	10.36	9.82	11.34	11.97	12.21	9.05	8.70	8.94	10.10	8.99	8.70	8.99	8.88	
11/6 14:00	1,405	1,316	1,462	202	1,795	1,732	1,861	1,475	1,320	1,552	1,748	1,569	1,464	1,515	1,585	10.61	9.38	10.14	10.08	11.92	11.98	12.23	9.49	9.15	9.56	10.00	9.14	9.02	9.55	9.33	
11/6 14:10	1,490	1,397	1,618	141	1,784	1,776	1,893	1,681	1,355	1,555	1,894	1,645	1,482	1,676	1,773	10.81	9.50	10.54	10.09	11.81	12.35	12.38	9.89	9.04	9.54	10.43	9.46	9.00	10.02	9.81	
11/6 14:20	1,642	1,504	1,795	322	1,845	1,940	1,877	1,555	1,326	1,454	1,854	1,691	1,576	1,739	1,884	11.45	9.80	10.84	10.78	11.81	12.48	12.06	9.63	9.08	9.26	10.36	9.56	9.26	10.05	9.93	
11/6 14:30	1,510	1,456	1,682	-2	1,809	1,892	1,986	1,678	1,307	1,447	1,811	1,571	1,511	1,728	1,806	11.11	9.85	10.83	10.67	11.83	12.54	12.54	9.74	8.87	9.21	10.15	9.07	9.13	9.98	9.77	
11/6 14:40	1,480	1,535	1,759	-2	1,891	1,928	2,005	1,397	1,079	1,261	1,583	1,343	1,355	1,491	1,580	11.12	10.25	11.23	11.54	12.13	12.69	12.72	9.24	8.33	8.73	9.62	8.64	8.81	9.40	9.24	
11/6 14:50	1,560	1,604	1,770	-2	1,934	1,974	1,969	1,522	1,304	1,395	1,687	1,547	1,516	1,713	1,840	11.14	10.16	10.96	10.75	12.12	12.64	12.35	9.36	8.88	9.13	9.87	9.07	9.20	10.08	9.94	
11/6 15:00	1,662	1,494	1,709	-2	1,873	1,830	1,879	1,939	1,706	1,853	2,002	1,997	1,941	2,010	2,007	10.91	9.60	10.40	10.51	11.75	12.35	12.18	10.52	9.74	10.37	11.09	10.42	10.26	11.10	11.09	
11/6 15:10	1,757	1,625	1,800	-2	1,903	1,847	1,921	1,999	2,014	2,017	1,999	2,000	2,011	2,000	1,999	11.31	10.02	10.69	10.84	11.82	12.20	12.14	11.15	10.55	11.13	12.11	11.26	11.05	11.89	11.70	
11/6 15:20	1,882	1,694	2,007	-2	2,016	1,937	1,995	2,000	1,999	1,999	1,999	2,000	2,000	2,000	1,999	11.98	10.30	11.68	11.22	12.04	12.55	12.35	11.65	11.19	11.57	12.54	11.31	11.20	11.92	11.55	
11/6 15:30	1,887	1,608	2,002	-2	1,975	1,909	1,960	1,999	1,999	1,999	1,999	1,996	1,999	2,000	1,999	11.90	9.95	11.59	11.32	12.08	12.40	12.32	11.36	11.19	11.25	12.08	11.07	10.76	11.55	11.53	
11/6 15:40	1,806	1,626																													

11/6 19:00	1,934	1,935	2,000	[-11059]	2,000	2,000	1,999	2,000	1,999	2,000	1,999	2,000	1,999	2,001	2,000	12.34	11.78	13.93	[-11059]	14.78	14.23	12.82	13.85	14.47	13.42	14.93	13.66	12.17	14.46	13.50
11/6 19:10	1,954	1,955	1,999	[-11059]	2,000	1,999	1,999	2,000	2,000	1,999	1,999	2,000	2,000	2,000	2,000	12.73	11.78	14.26	[-11059]	15.00	14.92	13.26	13.95	14.31	14.13	14.93	13.76	12.00	14.45	14.07
11/6 19:20	2,013	1,999	2,000	[-11059]	2,000	2,000	2,000	2,000	2,000	1,999	2,000	2,000	2,000	2,001	2,000	12.92	12.22	14.23	[-11059]	14.99	15.09	14.32	15.26	15.29	14.36	15.72	14.25	13.00	14.50	14.12
11/6 19:30	2,004	2,002	2,000	[-11059]	2,000	2,000	2,001	2,000	2,000	2,000	2,001	2,000	2,000	2,000	2,000	13.92	12.62	14.56	[-11059]	16.22	15.91	15.05	15.00	15.23	15.04	16.14	14.20	13.45	14.88	13.92
11/6 19:40	1,999	2,010	2,000	[-11059]	2,000	2,000	2,000	1,998	1,999	2,000	2,000	2,000	2,000	2,000	2,000	14.27	13.41	14.85	[-11059]	16.66	16.69	15.40	15.49	15.54	15.64	16.86	14.58	14.18	15.54	14.67
11/6 19:50	1,999	2,000	2,000	[-11059]	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	14.25	13.87	15.77	[-11059]	17.44	16.71	17.37	15.62	15.01	15.20	16.24	13.86	14.04	14.13	14.44
11/6 20:00	2,000	1,997	2,000	[-11059]	2,000	1,999	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,001	2,000	14.50	13.05	15.19	[-11059]	16.79	16.53	17.22	15.42	14.52	15.05	15.65	13.92	13.82	13.96	13.90
11/6 20:10	1,999	2,001	2,000	[-11059]	2,000	2,000	2,000	2,000	2,001	2,000	2,000	1,999	2,000	2,000	2,000	14.80	13.90	14.61	[-11059]	16.49	15.73	16.18	14.88	13.89	14.16	14.77	13.00	12.95	13.56	13.56
11/6 20:20	2,000	1,980	2,000	[-11059]	1,996	2,000	1,999	2,000	1,998	2,000	2,000	1,999	2,000	2,000	1,999	14.82	12.61	14.53	[-11059]	15.08	15.61	15.77	14.42	14.00	13.69	14.63	12.74	12.64	13.25	12.24
11/6 20:30	1,999	2,016	2,000	[-11059]	2,000	2,001	2,000	2,000	2,000	2,000	2,000	1,999	1,999	2,000	2,000	14.78	13.41	14.76	[-11059]	15.29	15.99	16.21	14.40	13.89	13.75	14.48	13.02	12.66	13.52	12.99
11/6 20:40	2,000	2,000	2,000	[-11059]	2,000	2,000	2,000	2,000	2,000	2,000	1,998	2,000	2,000	2,000	2,000	14.69	13.75	14.83	[-11059]	16.03	16.28	16.85	14.48	13.69	14.11	13.92	12.47	11.93	12.83	12.59
11/6 20:50	2,000	2,000	2,000	-8	2,000	1,999	2,000	2,000	1,999	2,000	1,999	2,000	1,998	1,999	1,998	14.48	13.38	14.54	14.67	15.93	15.94	17.16	13.71	12.69	12.86	12.63	12.07	11.45	12.61	11.95
11/6 21:00	2,000	1,998	2,000	1,850	2,000	2,000	1,999	2,000	1,998	1,999	2,000	1,999	1,985	1,986	2,000	13.74	12.62	13.79	13.45	14.80	14.86	15.78	13.67	12.30	12.46	12.79	11.80	11.09	11.78	12.28
11/6 21:10	1,999	1,926	1,999	2,004	2,001	1,999	1,999	1,999	1,999	2,000	2,000	1,992	1,834	2,012	1,974	13.17	12.06	13.07	12.68	13.93	13.94	15.11	12.75	11.49	11.53	11.97	11.13	9.97	11.43	10.83
11/6 21:20	1,993	1,976	2,000	2,000	1,996	2,000	2,000	1,999	2,000	1,999	1,999	2,007	1,996	1,993	2,012	13.42	12.08	13.20	13.69	14.34	14.34	14.76	12.81	11.99	11.72	12.07	11.76	11.06	11.81	11.30
11/6 21:30	2,001	1,967	2,000	1,997	2,003	1,999	1,999	1,999	1,999	1,978	1,999	1,996	2,009	1,997	1,998	13.51	12.42	12.80	13.30	14.37	14.01	15.48	12.15	11.88	11.61	12.35	11.43	11.36	11.74	11.06
11/6 21:40	1,989	2,007	1,999	1,995	2,000	2,001	1,999	1,999	1,957	1,994	1,998	1,957	1,842	1,981	1,939	13.39	12.26	13.76	12.80	14.75	14.50	15.36	11.92	11.30	11.25	11.06	10.96	9.88	11.68	10.52
11/6 21:50	2,009	1,947	2,000	1,984	1,999	1,999	2,001	2,000	2,003	2,009	2,000	2,004	2,005	1,966	2,003	13.16	11.64	13.22	12.74	13.97	13.35	14.44	11.90	11.43	11.17	11.50	11.12	10.86	11.38	11.48
11/6 22:00	2,005	2,020	2,000	2,016	2,000	1,999	1,999	1,998	1,989	1,980	1,999	2,000	1,993	2,010	1,971	13.88	12.86	13.52	13.70	14.16	14.85	14.45	11.69	11.29	11.10	12.19	11.02	10.98	11.52	10.90
11/6 22:10	1,998	1,999	2,000	1,997	1,999	1,999	2,000	2,000	1,856	1,944	1,999	1,997	1,968	1,999	1,924	13.62	12.00	13.16	12.86	13.43	13.44	13.69	11.48	10.39	10.70	11.44	10.88	10.28	11.52	10.50
11/6 22:20	2,002	1,980	2,000	1,904	1,986	1,999	1,999	1,853	1,621	1,624	1,758	1,759	1,795	1,849	1,924	12.85	12.20	12.94	12.28	13.97	14.19	13.84	10.39	9.84	9.41	10.12	9.82	9.96	10.53	10.22
11/6 22:30	1,944	1,816	1,929	1,774	2,001	2,000	1,980	1,881	1,563	1,636	1,816	1,890	1,313	1,716	1,654	11.99	10.96	11.57	11.06	12.71	12.68	12.25	10.47	9.91	9.50	10.42	10.19	8.36	10.18	9.69
11/6 22:40	1,957	1,699	1,925	1,606	1,883	1,981	1,953	1,957	1,618	1,335	1,838	1,728	1,616	1,728	1,767	11.70	10.61	11.14	10.78	11.93	12.03	11.85	10.59	9.65	8.86	10.45	9.62	9.31	10.07	9.67
11/6 22:50	1,884	1,504	1,875	1,741	2,002	1,959	1,971	1,831	1,281	1,303	1,696	1,228	1,261	1,480	1,691	11.16	9.95	10.99	11.19	12.43	11.90	11.84	9.99	8.78	8.46	10.03	8.40	8.24	9.37	9.52
11/6 23:00	1,772	1,688	1,938	1,596	1,982	2,003	2,013	1,580	1,236	1,137	1,521	1,187	1,154	1,542	1,445	10.88	10.58	11.32	10.84	12.37	12.11	12.61	9.42	9.04	8.31	9.43	8.26	8.08	9.82	9.01
11/6 23:10	1,983	1,562	1,894	1,676	1,981	1,935	1,999	1,927	1,487	1,591	1,558	1,433	1,283	1,594	1,636	12.10	10.07	11.21	11.01	12.03	11.95	12.44	10.63	9.53	9.15	9.41	8.88	8.43	9.67	9.45
11/6 23:20	1,924	1,739	1,914	1,679	1,942	1,954	1,999	1,902	1,618	1,677	1,836	1,650	1,702	1,761	1,892	11.46	10.76	11.25	11.31	12.24	11.98	12.30	10.66	9.86	9.64	10.36	9.41	9.65	10.16	9.97
11/6 23:30	1,998	1,870	1,937	1,772	1,993	1,986	1,999	1,593	1,471	1,555	1,776	1,638	1,767	1,745	1,701	12.20	11.05	11.28	11.53	12.54	12.24	12.58	9.65	9.25	9.13	9.97	9.30	9.74	10.13	9.54
11/6 23:40	1,972	1,718	1,965	1,760	2,011	2,001	1,999	1,777	1,382	1,474	1,685	1,588	1,414	1,746	1,687	11.95	10.75	11.28	11.67	13.01	12.62	12.70	10.20	9.05	9.00	9.98	9.19	8.55	10.07	9.51
11/6 23:50	1,948	1,870	1,937	1,757	1,960	1,999	2,002	1,725	1,391	1,462	1,469	1,417	1,335	1,645	1,697	12.16	11.29	11.33	11.66	12.39	12.52	12.82	9.55	8.99	9.02	9.48	8.78	8.52	9.96	9.65
11/7 0:00	2,008	1,876	1,999	1,888	2,019	1,998	1,999	1,826	1,245	1,499	1,466	1,506	1,217	1,535	1,686	12.17	11.31	11.93	11.98	12.82	12.72	13.02	10.08	8.51	8.98	9.33	8.98	8.21	9.35	9.46

APPENDIX F – EXCLUDED DATA: INITIAL FILTERING

This appendix provides the results of the initial filtering of each curtailment attempt to determine viable intervals for further filtering and analysis. This filtering, or screening, was conducted using:

- Data collected at the Site C weather station (temperature, precipitation, wind speed, and wind direction). In some cases, the weather station data were supplemented with audio recordings from Site C to help determine periods of precipitation and wind gusts.
- Turbine power-output data provided by Avangrid (used to determine when turbines were offline).
- Hub-height wind speed data provided by Avangrid (used to ensure that hub-height wind speed at Turbine W-08 was at least 6 m/s).

Section 3.3 of the report describes the overall filtering process in greater detail.

Table F.1 provides the screening results for each of the 24 curtailments attempted during the 17-day measurement period. For each curtailment, the table shows the one-hour “turbine-on” interval immediately preceding the curtailment, the approximately 20-minute long curtailment (or “turbine-off” period), and the one-hour “turbine-on” interval immediately following the curtailment. Note that although the “turbine-off” periods were nominally 20 minutes, the actual durations varied. In addition, there were transition periods while the turbines were shut down and when they were restarted. For these reasons, the time elapsed between the one-hour “turbine-on” periods before and after each curtailment may vary.

For each “turbine-on” or “turbine-off” interval, the table shows whether the interval was excluded or included for further analysis. If the interval was excluded, the table provides the disqualifying factor. These include the following:

- “Weather (wind direction)” was the most common weather-related reason for exclusion of data, indicating that there was an upwind vector component from Site C to the nearest turbines for a substantial portion of the interval.
- “Weather (precipitation)” indicates either that rain was recorded at the Site C weather station during at least a portion of the interval and/or that rain was audible on the audio recording from Site C. Relatively few periods were excluded for this reason because Avangrid attempted not to conduct curtailments during periods of precipitation.
- “Weather (gusts)” indicates that the maximum wind speed *at the measurement site* exceeded 5 m/s for substantial portions of the interval. In cases where the wind speed was greater than 5 m/s for a smaller portion of the interval, the period was carried forward, but flagged for further analysis during the secondary filtering of data. (This exclusionary criterion should not be confused with the requirement that *hub-height* wind speeds were at least 6 m/s during the curtailments.) In addition, although not shown here, intervals with wind speeds between 4 m/s and 5 m/s were flagged for further screening.
- As required by the Protocol, the data sets also were screened for temperatures below 14° F, although no temperatures that low were recorded during the Fall 2020 measurements.
- “Turbine (E-01, E-02, W-06) offline” indicates that a turbine was offline during a “turbine-on” interval. Section 3.3.1 of the report provides further information on intervals excluded due to offline turbines.
- “Thumping” refers to an unidentified intermittent sound that occurred at approximately 10-25 second intervals throughout the three curtailments on the night of October 21-22. After October 22, the sound did not occur during any subsequent curtailments.

Intervals that were not excluded for any reason during the initial filtering are identified in the table with the word “Include.” These intervals were carried forward for further filtering as described in Appendix G.

Table F.1 Excluded Data: Initial Filtering

Curtailment No.	Turbine On/Off	Start of Interval ¹	End of Interval ¹	Reason for Excluding Interval
1	On	Oct. 21 22:11:00	Oct. 21 23:11:00	Weather (wind direction and precipitation) + thumping ²
1	Off	Oct. 21 23:11:00	Oct. 21 23:33:00	Weather (wind direction and precipitation) + thumping ²
1	On	Oct. 21 23:33:00	Oct. 22 00:33:00	Weather (wind direction and precipitation) + thumping ²
2	On	Oct. 22 00:14:00	Oct. 22 01:14:00	Weather (wind direction and precipitation) + thumping ²
2	Off	Oct. 22 01:14:00	Oct. 22 01:34:00	Weather (wind direction and precipitation) + thumping ²
2	On	Oct. 22 01:34:00	Oct. 22 02:34:00	Weather (wind direction and precipitation) + thumping ²
3	On	Oct. 22 02:30:00	Oct. 22 03:30:00	Weather (wind direction and precipitation) + thumping ²
3	Off	Oct. 22 03:30:00	Oct. 22 03:50:00	Weather (wind direction and precipitation) + thumping ²
3	On	Oct. 22 03:30:00	Oct. 22 04:30:00	Weather (wind direction and precipitation) + thumping ²
4	On	Oct. 22 23:00:00	Oct. 23 00:00:00	Turbine E-01 offline
4	Off	Oct. 23 00:00:00	Oct. 23 00:24:00	Turbine E-01 offline
4	On	Oct. 23 00:24:00	Oct. 23 01:24:00	Turbine E-01 offline
5	On	Oct. 23 01:24:00	Oct. 23 02:24:00	Turbine E-01 offline
5	Off	Oct. 23 02:24:00	Oct. 23 02:44:00	Turbine E-01 offline
5	On	Oct. 23 02:44:00	Oct. 23 03:44:00	Turbine E-01 offline
6	On	Oct. 23 22:01:00	Oct. 23 23:01:00	Weather (wind direction and gusts)
6	Off	Oct. 23 23:01:00	Oct. 23 23:21:00	Weather (wind direction and gusts)
6	On	Oct. 23 23:21:00	Oct. 24 00:21:00	Weather (wind direction and gusts)
7	On	Oct. 24 03:22:00	Oct. 24 04:22:00	(Include for additional filtering)
7	Off	Oct. 24 04:24:00	Oct. 24 04:42:00	(Include for additional filtering)
7	On	Oct. 24 04:44:00	Oct. 24 05:44:00	(Include for additional filtering)
8	On	Oct. 25 04:12:00	Oct. 25 05:12:00	Weather (wind direction)
8	Off	Oct. 25 05:12:00	Oct. 25 05:32:00	Weather (wind direction)
8	On	Oct. 25 05:32:00	Oct. 25 06:32:00	Weather (wind direction)
9	On	Oct. 25 22:03:00	Oct. 25 23:03:00	Weather (wind direction)
9	Off	Oct. 25 23:03:00	Oct. 25 23:23:00	Weather (wind direction)
9	On	Oct. 25 23:23:00	Oct. 26 00:23:00	Weather (wind direction)
10	On	Oct. 26 00:12:00	Oct. 26 01:12:00	Weather (wind direction)
10	Off	Oct. 26 01:12:00	Oct. 26 01:32:00	Weather (wind direction)
10	On	Oct. 26 01:32:00	Oct. 26 02:32:00	Weather (wind direction)
11	On	Oct. 26 02:18:00	Oct. 26 03:18:00	Weather (wind direction)
11	Off	Oct. 26 03:18:00	Oct. 26 03:38:00	Weather (wind direction)
11	On	Oct. 26 03:38:00	Oct. 26 04:38:00	Weather (wind direction and gusts, precipitation)
12	On	Oct. 31 22:00:00	Oct. 31 23:00:00	(Include for additional filtering)
12	Off	Oct. 31 23:03:00	Oct. 31 23:20:00	(Include for additional filtering)
12	On	Oct. 31 23:22:00	Nov. 1 00:22:00	(Include for additional filtering)
13	On	Nov. 1 00:03:00	Nov. 1 01:03:00	(Include for additional filtering)
13	Off	Nov. 1 01:05:00	Nov. 1 01:23:00	(Include for additional filtering)
13	On	Nov. 1 01:25:00	Nov. 1 02:25:00	(Include for additional filtering)

Curtailment No.	Turbine On/Off	Start of Interval ¹	End of Interval ¹	Reason for Excluding Interval
14	On	Nov. 1 02:20:00	Nov. 1 03:20:00	Weather (wind direction)
14	Off	Nov. 1 03:20:00	Nov. 1 03:40:00	Weather (wind direction and gusts)
14	On	Nov. 1 03:40:00	Nov. 1 04:40:00	Weather (wind direction and gusts)
15	On	Nov. 1 22:01:00	Nov. 1 23:01:00	Turbine W-06 offline, Weather (wind direction and gusts)
15	Off	Nov. 1 23:01:00	Nov. 1 23:21:00	Turbine W-06 offline, Weather (wind direction and gusts)
15	On	Nov. 1 23:21:00	Nov. 2 00:21:00	Turbine W-06 offline, Weather (wind direction and gusts)
16	On	Nov. 2 00:06:00	Nov. 2 01:06:00	Turbine W-06 offline
16	Off	Nov. 2 01:06:00	Nov. 2 01:27:00	Turbine W-06 offline
16	On	Nov. 2 01:27:00	Nov. 2 02:27:00	Turbine W-06 offline
17	On	Nov. 2 02:11:00	Nov. 2 03:11:00	Turbine W-06 offline
17	Off	Nov. 2 03:11:00	Nov. 2 03:31:00	Turbine W-06 offline
17	On	Nov. 2 03:31:00	Nov. 2 04:31:00	Turbine W-06 offline
18	On	Nov. 4 02:49:00	Nov. 4 03:49:00	Weather (wind direction)
18	Off	Nov. 4 03:49:00	Nov. 4 04:19:00	("Turbine-off" period OK, both "Turbine-on" periods excluded)
18	On	Nov. 4 04:19:00	Nov. 4 05:19:00	Turbine E-02 offline
19	On	Nov. 4 22:12:00	Nov. 4 22:32:00	(Include for additional filtering)
19	Off	Nov. 4 23:13:00	Nov. 4 23:34:00	(Include for additional filtering)
19	On	Nov. 4 23:36:00	Nov. 5 00:36:00	(Include for additional filtering)
20	On	Nov. 5 00:43:00	Nov. 5 01:43:00	(Include for additional filtering)
20	Off	Nov. 5 01:45:00	Nov. 5 02:04:00	(Include for additional filtering)
20	On	Nov. 5 02:06:00	Nov. 5 03:06:00	(Include for additional filtering)
21	On	Nov. 5 03:12:00	Nov. 5 04:12:00	(Include for additional filtering)
21	Off	Nov. 5 04:14:00	Nov. 5 04:34:00	(Include for additional filtering)
21	On	Nov. 5 04:36:00	Nov. 5 05:36:00	(Include for additional filtering)
22	On	Nov. 5 22:46:00	Nov. 5 23:46:00	(Include for additional filtering)
22	Off	Nov. 5 23:48:00	Nov. 6 00:07:00	(Include for additional filtering)
22	On	Nov. 6 00:09:00	Nov. 6 01:09:00	(Include for additional filtering)
23	On	Nov. 6 01:11:00	Nov. 6 02:11:00	(Include for additional filtering)
23	Off	Nov. 6 02:12:00	Nov. 6 02:33:00	(Include for additional filtering)
23	On	Nov. 6 02:34:00	Nov. 6 03:34:00	(Include for additional filtering)
24	On	Nov. 6 03:35:00	Nov. 6 04:35:00	(Include for additional filtering)
24	Off	Nov. 6 04:38:00	Nov. 6 05:00:00	(Include for additional filtering)
24	On	Nov. 6 05:01:00	Nov. 6 06:01:00	(Include for additional filtering)

¹For excluded intervals, "turbine-off" times are nominal curtailment times as provided by Avangrid; "turbine-on" times are one hour before and after start/end of curtailment. For included intervals, times shown are actual times used in the data analysis, as determined from acoustical data.

²"Thumping" refers to unidentified intermittent sound occurring at approximately 10-25 second intervals throughout the three curtailments on the night of October 21-22. After October 22, the sound did not occur during any subsequent curtailments.

Source: Avangrid, CSA

APPENDIX G – EXCLUDED DATA: ADDITIONAL FILTERING

This appendix provides the additional filtering analysis conducted for each of the intervals carried forward after the initial filtering described in Appendix F. Based on the initial filtering, intervals from 9 of the 24 curtailment attempts qualified for further analysis. This appendix provides the analysis for each curtailment attempt which qualified for further filtering. For each curtailment attempt, at each applicable measurement site, the following are included:

- A graph showing the entire 1-second sound level time history starting one hour before the beginning and extending to one hour after the curtailment's "turbine-off" period. On this graph, the "turbine-off" period is shaded light red and the two "turbine-on" periods are shaded light green.
- *For the "turbine-off" interval:*
 - A table with entries corresponding to each period that was excluded during the additional filtering, along with the reason for excluding the data. The most common events excluded were traffic on VT Route 8. Other contaminating events included wind gusts, precipitation, and some unidentified events judged to be unrelated to the Deerfield turbines. In some cases, the tables include events that were examined but not excluded from the data set.
 - A list (with light-blue shaded header) identifying which 1-minute intervals (if any) were excluded based on data from the weather station located at Site C.
 - A table showing the computed L_{eq} and residual time for the remaining portion of the "turbine-off" interval after all filtering.
 - Graphs showing the 1-second sound level time history of the "turbine-off" interval in 10-minute segments. Note that the first and last 10-minute segments typically extend both before and after the actual "turbine-off" interval. On each graph, the sections identified with a lighter blue line show periods that were excluded either due to contaminating events (corresponding to the entries in the preceding the tables) or not meeting weather screening requirements. The darker blue line sections on these figures indicate periods that remained after the additional filtering and that were used to compute the "turbine-off" L_{eq} for the interval.
- *For the "turbine-on" intervals:*
 - A table with entries corresponding to each period that was excluded during the additional filtering, along with the reason for excluding the data. The most common events excluded were traffic on VT Route 8. Other contaminating events included wind gusts, precipitation, and some unidentified events judged to be unrelated to the Deerfield turbines. In some cases, the tables include events that were examined but not excluded from the data set.
 - A list (with light-blue shaded header) identifying which 1-minute intervals (if any) were excluded based on data from the weather station located at Site C.
 - A table showing the computed L_{eq} and residual time for the remaining portion of each "turbine-on" interval after all filtering. Any of the "turbine-on" intervals that exceeded the "turbine-off" L_{eq} by at least 3 dB are highlighted in green. Any "turbine-on" intervals not exceeding the adjacent "turbine-off" L_{eq} by at least 3 dB are highlighted in red (see Section 3.3.2 of the main report for additional details). For the green-highlighted "turbine-on" intervals, the "turbine-only" L_{eq} for the interval also is shown.

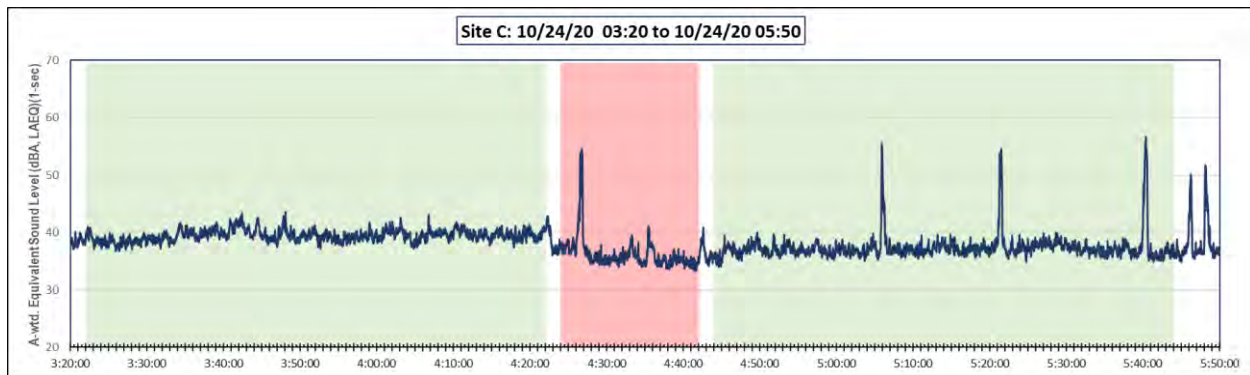
- o Graphs showing the 1-second sound level time history of the “turbine-on” intervals in 10-minute segments. Note that the first and last 10-minute segments typically extend both before and after the actual “turbine-on” intervals. On each graph, the sections identified with a lighter blue line show periods that were excluded either due to contaminating events (corresponding to the entries in the preceding the tables) or not meeting weather screening requirements. The darker blue line sections on these figures indicate periods that remained after the additional filtering and that were used to compute the “turbine-on” L_{eq} for the interval.

The appendix is organized with the graphs and tables in order by curtailment number as follows:

- Curtailment 7 – Oct. 24, 2020 04:24 to Oct. 24, 2020 04:42
- Curtailment 12 – Oct. 31, 2020 23:03 to Oct. 31, 2020 23:20
- Curtailment 13 – Nov. 1, 2020 01:05 to Nov. 1, 2020 01:23
- Curtailment 19 – Nov. 4, 2020 23:13 to Nov. 4, 2020 23:34
- Curtailment 20 – Nov. 5, 2020 01:45 to Nov. 5, 2020 02:04
- Curtailment 21 – Nov. 5, 2020 04:14 to Nov. 5, 2020 04:34
- Curtailment 22 – Nov. 5, 2020 23:48 to Nov. 6, 2020 00:07
- Curtailment 23 – Nov. 6, 2020 02:12 to Nov. 6, 2020 02:33
- Curtailment 24 – Nov. 6, 2020 04:38 to Nov. 6, 2020 05:00

For each curtailment, the overview time-history graph is presented first, followed by the “turbine-off” data, and then the “turbine-on” data.

CURTAILMENT 7 – Oct. 24, 2020 04:24 to Oct. 24, 2020 04:42 (1024SiteC)



Turbine-off: Oct. 24 04:24:00 to Oct. 24 04:42:00

1024 Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	4:26:05	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	2:35:15	Car/Truck	4:26:00	4:26:58	0:00:58
2	4:35:20	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	2:44:30	Wind blowing leaves	4:35:20	4:36:20	0:01:00
						Total Excluded:		0:01:58

Turbine off: 04:24:00 to 04:41:59

10/24/2020 4:24:00 Toff 35.6

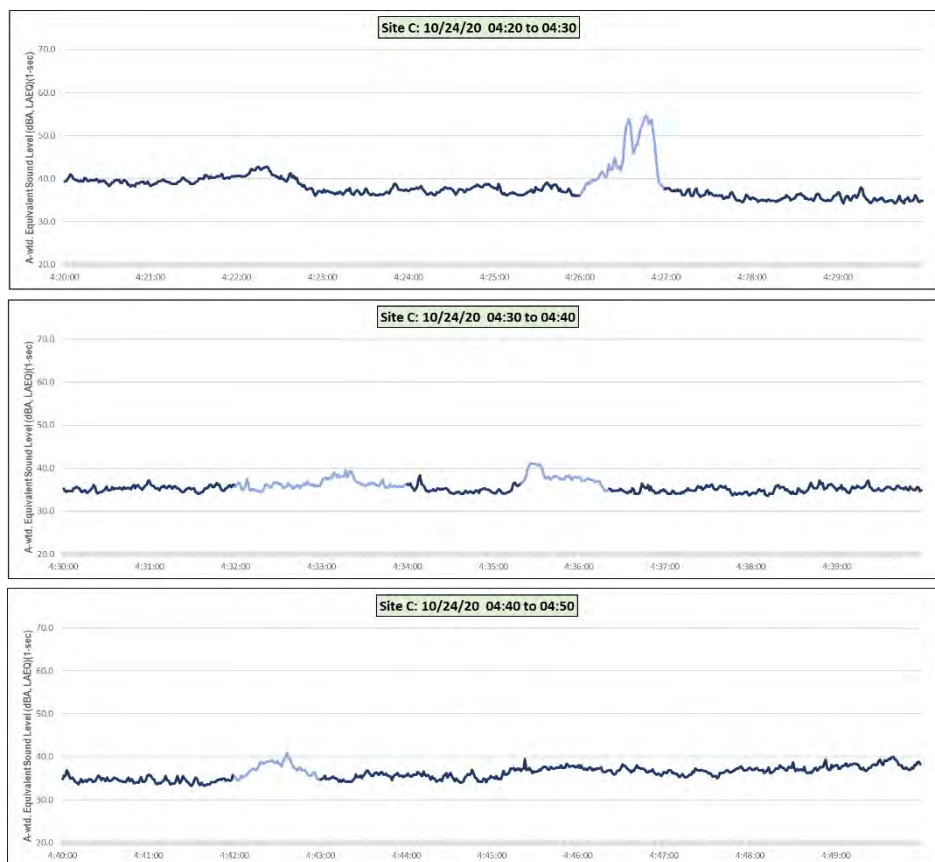
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
4:24:00	35.6	18.0	14.0
		1080	840
Total Duration (Sec)			

Total excluded: 4.0 minutes (Total includes events from Tables Toff + weather)

Check from Tables Toff: 0:01:58 minutes

These minutes excluded due to wind/precip.:

3 minutes	4:32
	4:33
	4:42 (After Toff period/before Ton period)



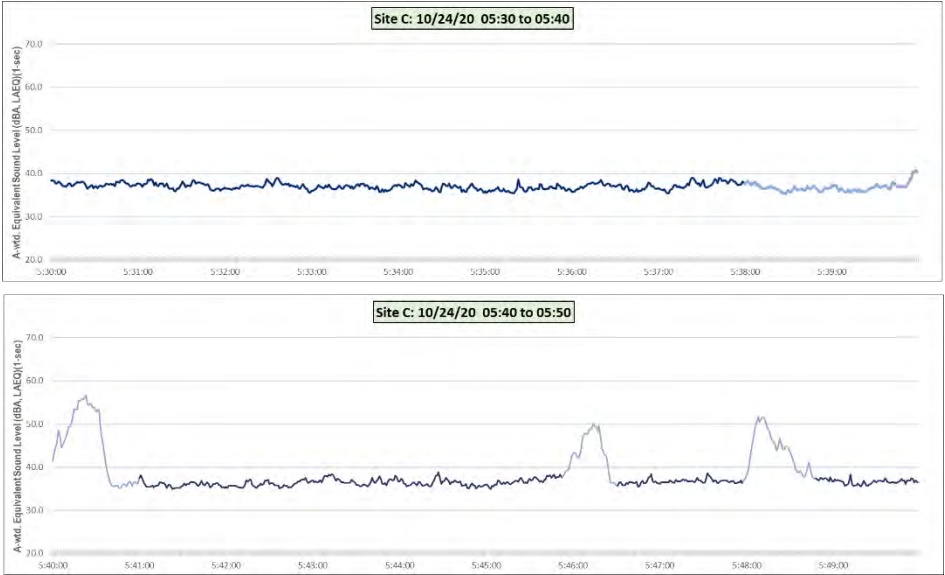
Turbine-on: Oct. 24 03:22:00 to Oct. 24 04:22:00 and Oct. 24 04:44:00 to Oct. 24 05:44:00

1024Site C Turbine On						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	3:47:00	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	1:56:10	Aircraft or turbine?	3:47:00	3:48:20	
2	5:05:45	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	3:14:55	Car/Truck	5:05:45	5:06:24	0:00:39
3	5:21:05	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	3:30:15	Car/Truck	5:21:05	5:21:40	0:00:35
4	5:39:51	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	3:49:01	Car/Truck	5:39:51	5:40:42	0:00:51
5	5:45:53	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	3:55:03	Car/Truck*	5:45:53	5:46:30	
6	5:47:58	2020-10-22_SLM_001_Audio_FS110.9dB(PK)_03	1:50:50	3:57:08	Car/Truck*	5:47:58	5:48:47	
					*This event after 1-hr turbine-on period			
						Total Excluded:		0:02:05

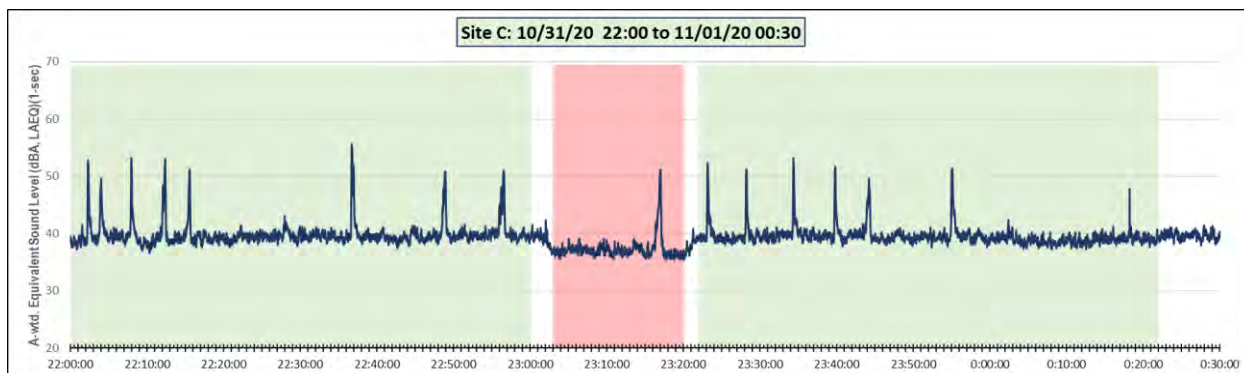
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)	Turbine Only (dBA)					
3:22:00	39.5	60.0	49.0		3.8	37.2					
4:44:00	37.0	60.0	43.7		1.4						
		7200	5564	Total Duration (Sec)							
Total excluded: 27.3 minutes							(Total includes events from Tables Ton + weather)				
Check from Tables Ton: 0:02:05 minutes											
These minutes excluded due to wind direction/precip.:											
26 minutes						3:23					
						3:29					
						3:39					
						3:40					
						3:41					
						3:42					
						3:43					
						3:52					
						3:59					
						4:09					
						4:10					
						4:48					
						4:51					
						5:04					
						5:14					
						5:15					
						5:16					
						5:17					
						5:25					
						5:26					
						5:27					
						5:28					
						5:29					
						5:38					
						5:39					
						5:40					







CURTAILMENT 12 – Oct. 31, 2020 23:03 to Oct. 31, 2020 23:20 (1031SiteC)



Turbine-off: Oct. 31 23:03:00 to Oct. 31 23:20:00

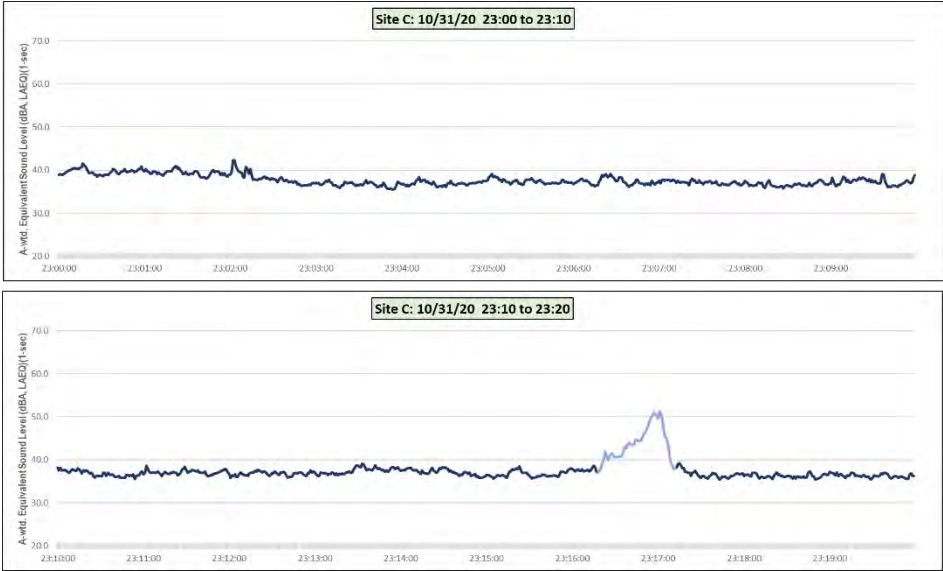
1031 Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	23:16:18	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:45:12	Car/Truck	23:16:18	23:17:12	0:00:54
Total Excluded:								0:00:54

Turbine off: 23:03:00 to 23:19:59

10/31/2020 23:03:00 Toff 37.0

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
23:03:00	37.0	17.0	16.1
		1020	965
Total Duration (Sec)			

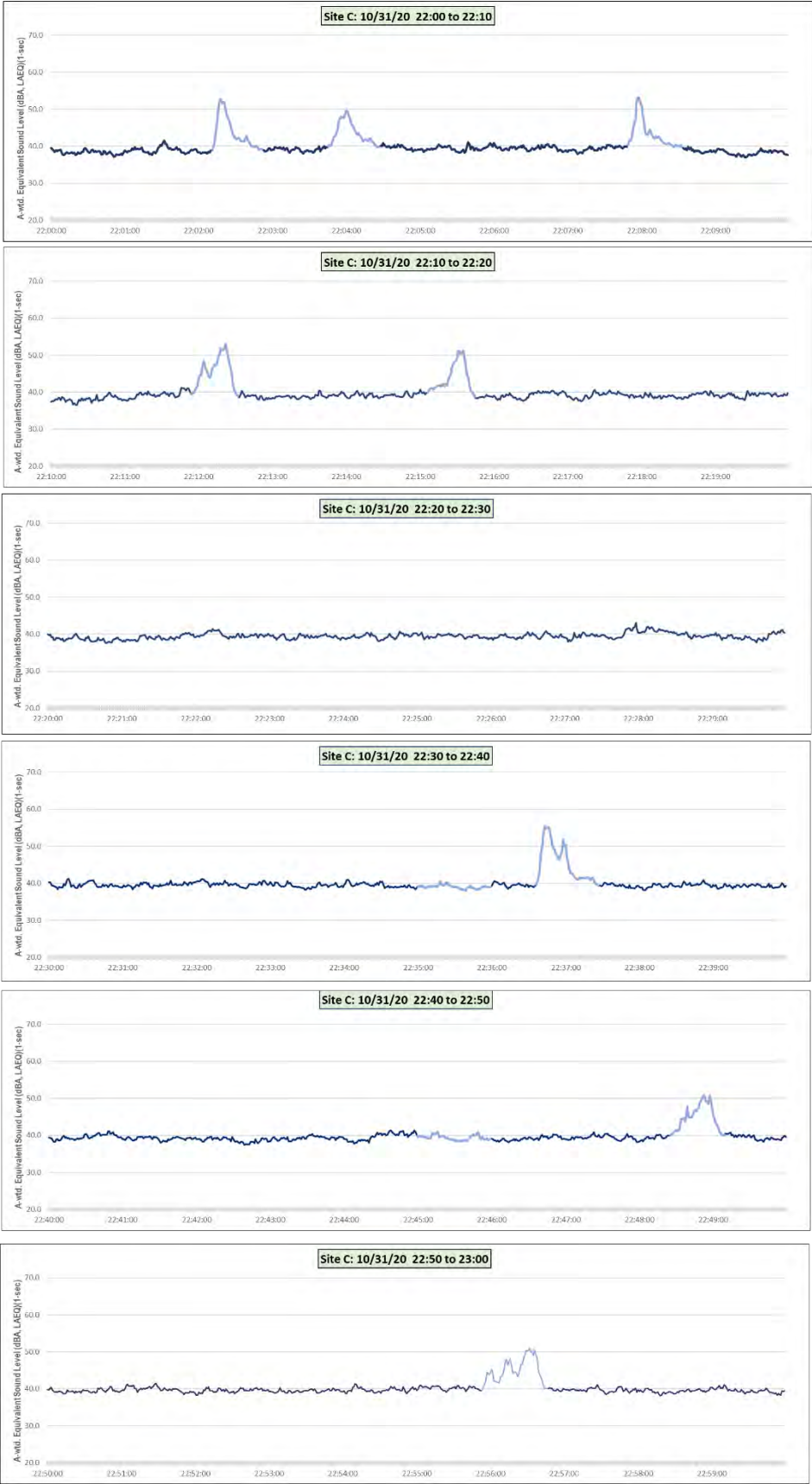
Total excluded: 0.9 minutes
Check from Tables Toff: 0:00:54 minutes



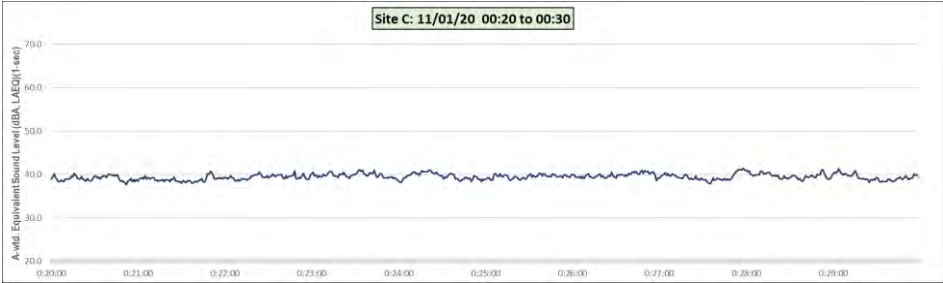
Turbine-on: Oct. 31 22:00:00 to Oct. 31 23:00:00 and Oct. 31 23:22:00 to Nov. 1 00:22:00

1031 Site C Turbine On						Period to Exclude		
Exceedance Time		WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	22:02:11	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	7:31:05	Car/Truck	22:02:11	22:02:52	0:00:41
2	22:03:45	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	7:32:39	Car/Truck	22:03:45	22:04:27	0:00:42
3	22:07:49	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	7:36:43	Car/Truck	22:07:49	22:08:33	0:00:44
4	22:11:54	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	7:40:48	Car/Truck	22:11:54	22:12:32	0:00:38
5	22:15:06	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	7:44:00	Car/Truck	22:15:06	22:15:44	0:00:38
6	22:36:36	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:05:30	Car/Truck	22:36:36	22:37:27	0:00:51
7	22:48:25	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:17:19	Car/Truck	22:48:25	22:49:09	0:00:44
8	22:55:53	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:24:47	Car/Truck	22:55:53	22:56:46	0:00:53
9	23:23:02	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:51:56	Car/Truck	23:23:02	23:23:38	0:00:36
10	23:28:04	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	8:56:58	Car/Truck	23:28:04	23:28:36	0:00:32
11	23:34:11	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:03:05	Car/Truck	23:34:11	23:34:55	0:00:44
12	23:39:39	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:08:33	Car/Truck	23:39:39	23:40:16	0:00:37
13	23:43:49	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:12:43	??	23:43:49	23:44:29	0:00:40
14	23:54:53	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:23:47	Car/Truck	23:54:53	23:55:48	0:00:55
15	0:18:13	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:47:07	??	0:18:13	0:18:16	0:00:03
						Total Excluded:		0:09:58

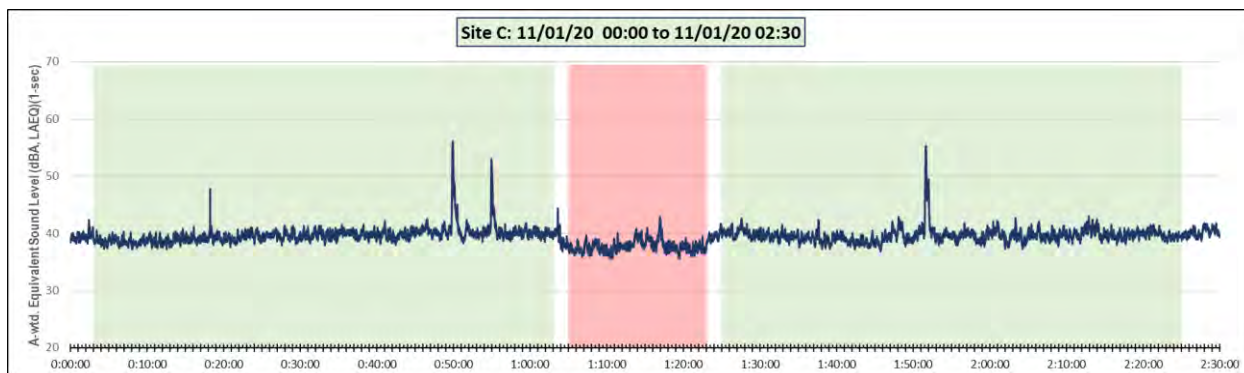
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)	Ton - Toff (dB)						
22:00:00	39.4	60.0	52.0	2.4						
23:22:00	39.2	60.0	55.4	2.2						
		7200	6445	Total Duration (Sec)						
					Total excluded:	12.6 minutes	(Total includes events from Tables Ton + weather)			
					Check from Tables Ton:	0:09:58 minutes				
These minutes excluded due to wind direction:										
	3 minutes					22:35				
						22:45				
						23:23				







CURTAILMENT 13 – Nov. 1, 2020 01:05 to Nov. 1, 2020 01:23 (1101ASiteC)



Turbine-off: Nov. 1 01:05:00 to Nov. 1 01:23:00

1101A Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	1:13:42	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	10:42:36 ??		1:13:42	1:13:54	0:00:12
2	1:15:09	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	10:44:03 ??		1:15:09	1:15:18	0:00:09
3	1:16:43	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	10:45:37 ??		1:16:43	1:17:16	0:00:33
						Total Excluded:		0:00:54

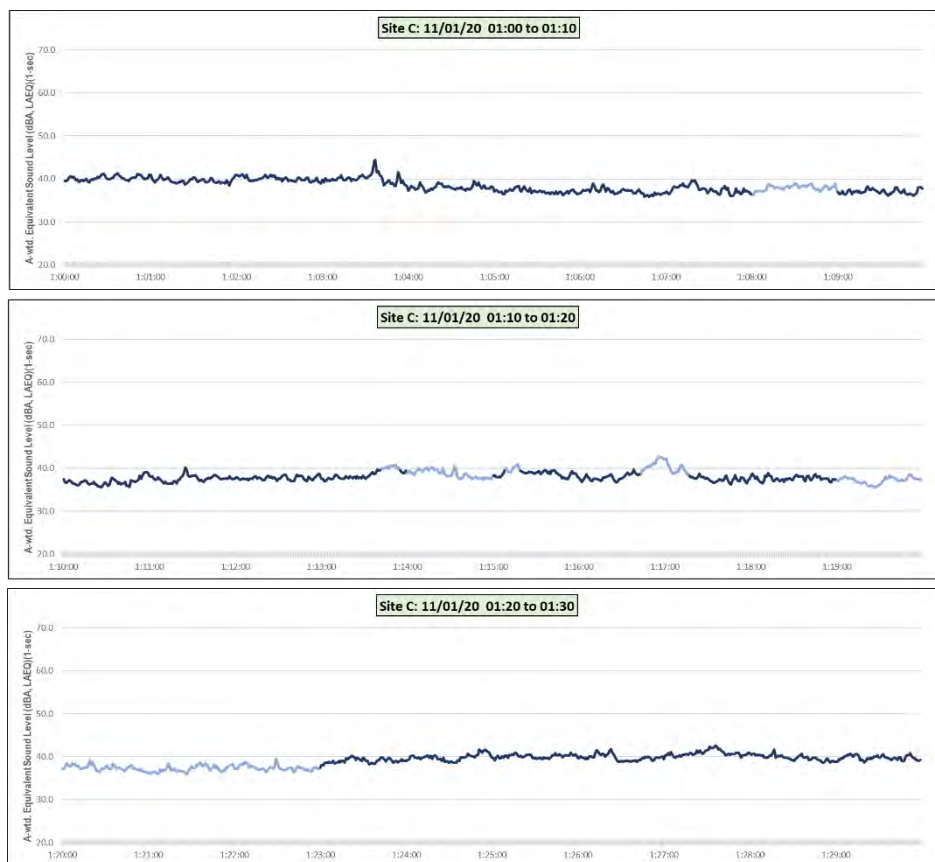
Turbine off: 01:05:00 to 01:22:59			
11/1/2020	1:05:00	Toff	37.6

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
1:05:00	37.6	18.0	11.1
		1080	663
Total Duration (Sec)			

Total excluded:	7.0 minutes	(Total includes events from Tables Toff + weather)
Check from Tables Toff:	0:00:54 minutes	

These minutes excluded due to wind direction:

6 minutes	1:08
	1:14
	1:19
	1:20
	1:21
	1:22

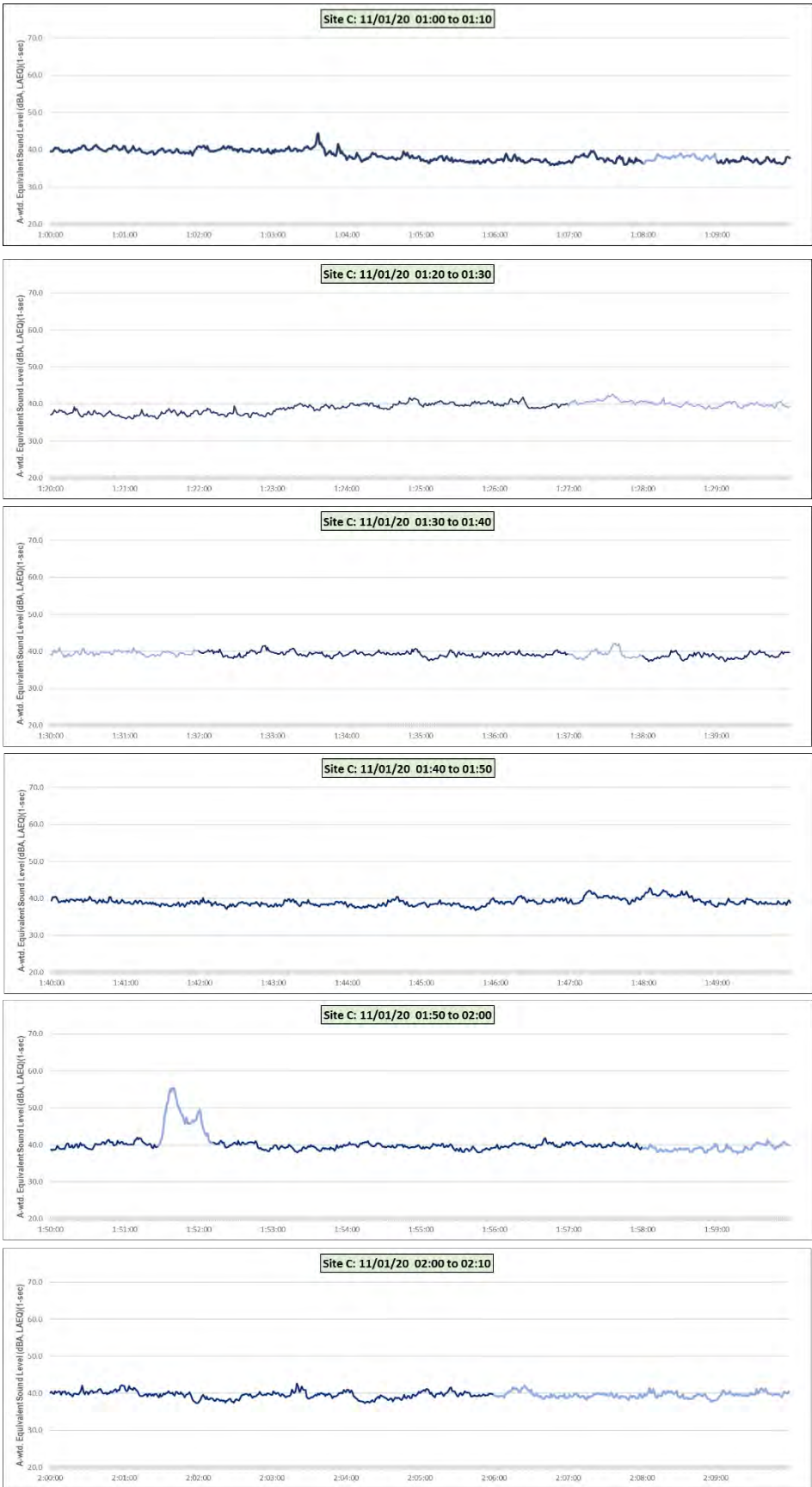


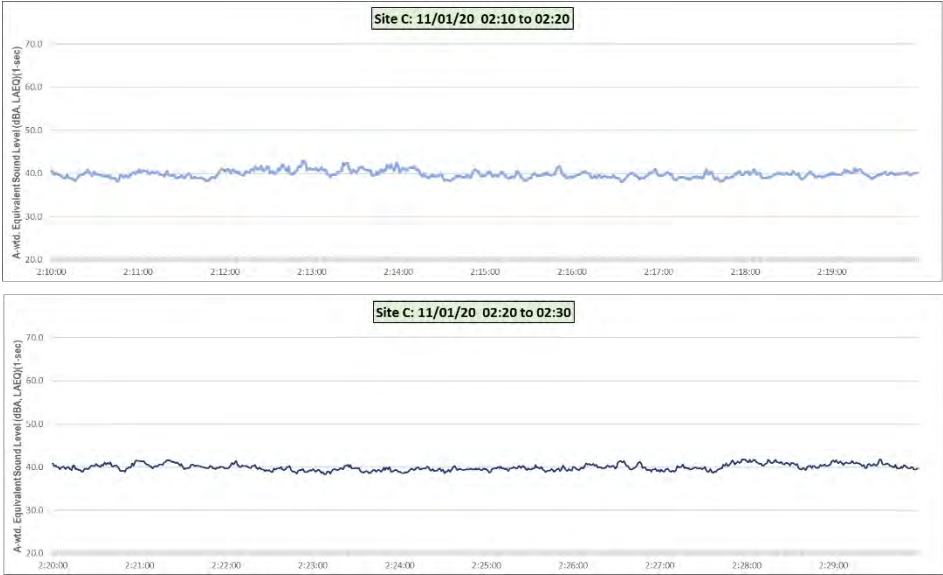
Turbine-on: Nov. 1 00:03:00 to Nov. 1 01:03:00 and Nov. 1 01:25:00 to Nov. 1 02:25:00

1101A Site C Turbine On						Period to Exclude		
Exceedance Time		WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	0:18:13	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	9:47:07	??	0:18:13	0:18:15	0:00:02
2	0:49:42	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	10:18:36	Car/Truck	0:49:42	0:50:39	0:00:57
3	0:54:44	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	10:23:38	Car/Truck	0:54:44	0:55:38	0:00:54
4	1:51:27	2020-10-31_SLM_001_Audio_FS110.9dB(PK)_00	14:31:06	11:20:21	Car/Truck	1:51:27	1:52:11	0:00:44
						Total Excluded:		0:02:37

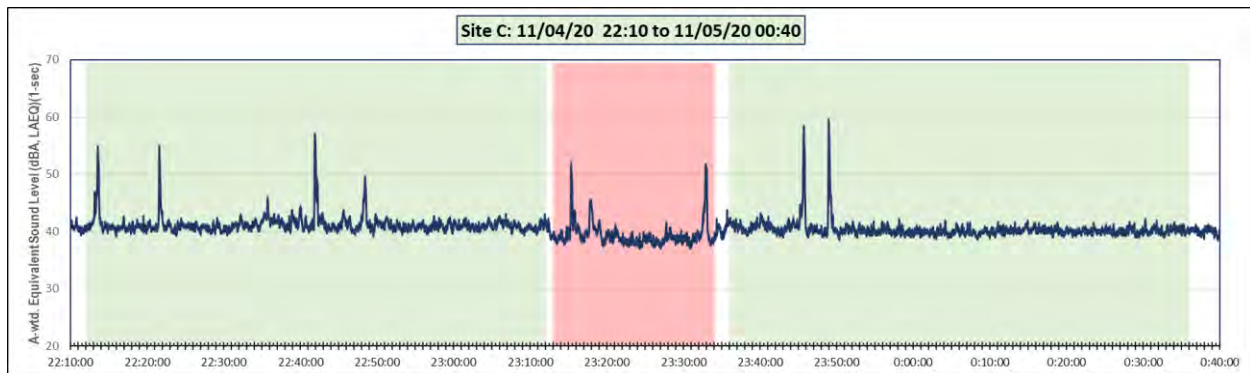
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)					
0:03:00	39.5	60.0	54.1		1.9					
1:25:00	39.5	60.0	37.3		1.9					
		7200	5478	Total Duration (Sec)						







CURTAILMENT 19 – Nov. 4, 2020 23:13 to Nov. 4, 2020 23:34 (1104B Site C)



Turbine-off: Nov. 4 23:13:00 to Nov. 4 23:34:00

1104B Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file		Type of Event	Start	End
				Elapsed Time				Time Excluded
1	23:15:13	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	7:45:55	Car/Truck	23:15:13	23:15:57	0:00:44
2	23:17:39	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	7:48:21	??	23:17:39	23:19:24	0:01:45
3	23:32:28	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	8:03:10	Car/Truck	23:32:28	23:33:12	0:00:44
Total Excluded:								0:03:13

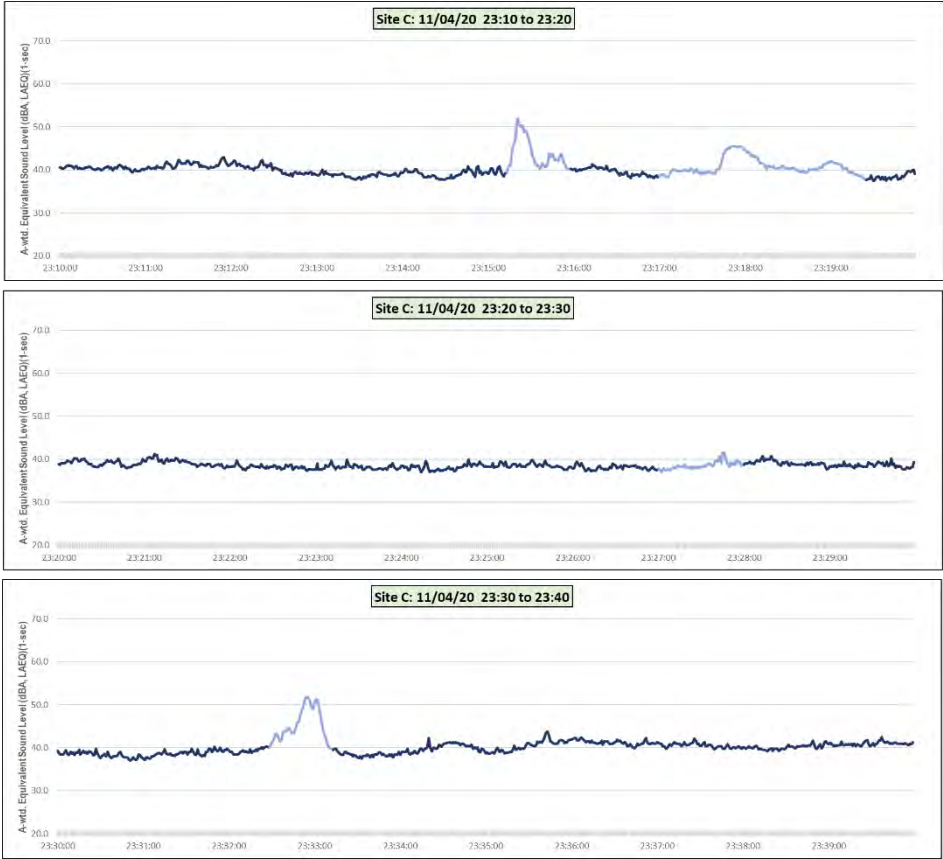
Turbine off: 23:13:00 to 23:33:59			
11/4/2020	23:13:00	Toff	38.8

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
23:13:00	38.8	21.0	16.1
		1260	965
Total Duration (Sec)			

Total excluded: 4.9 minutes (Total includes events from Tables Toff + weather)
Check from Tables Toff: 0:03:13 minutes

These minutes excluded due to wind direction:

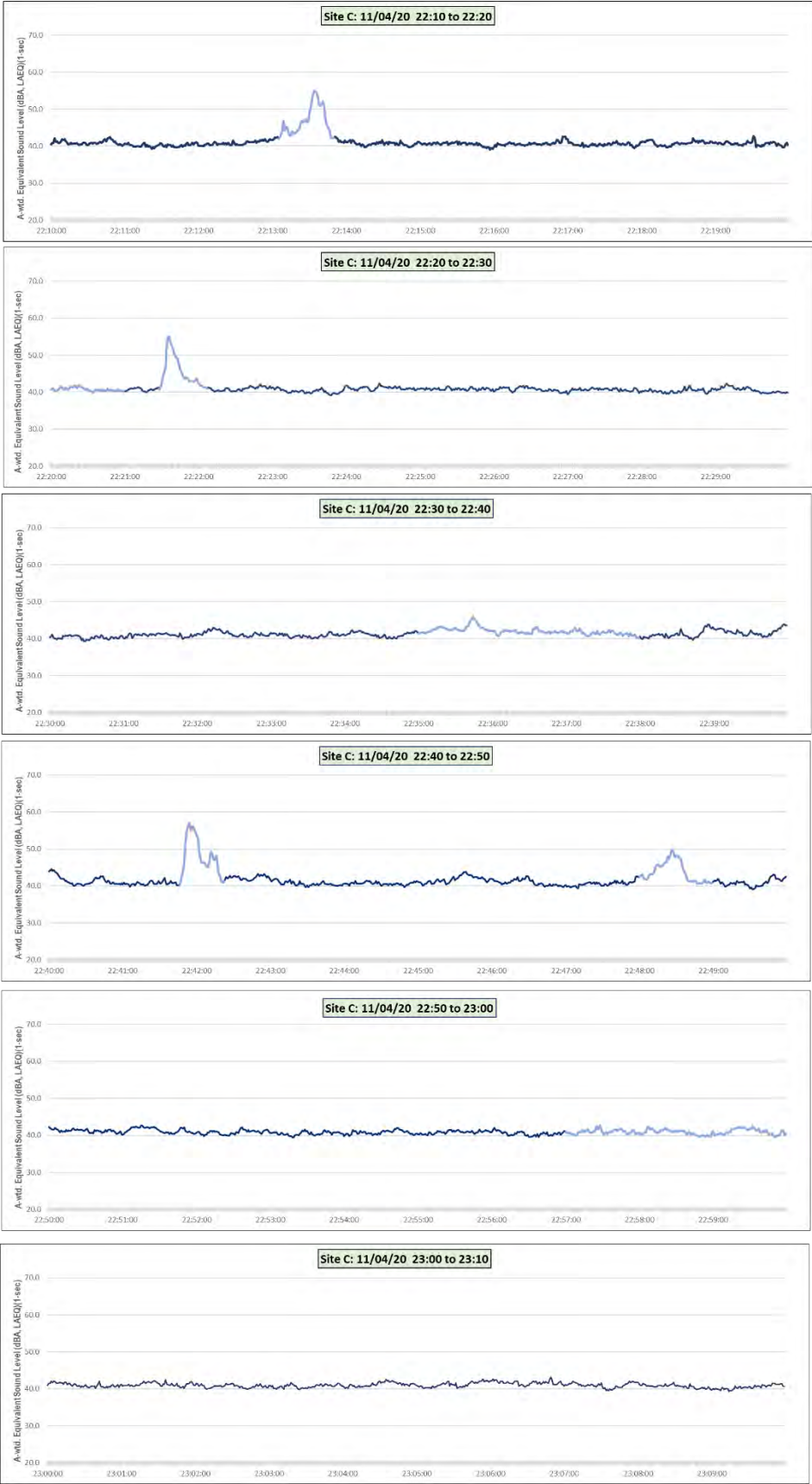
3 minutes	23:17
	23:18
	23:27

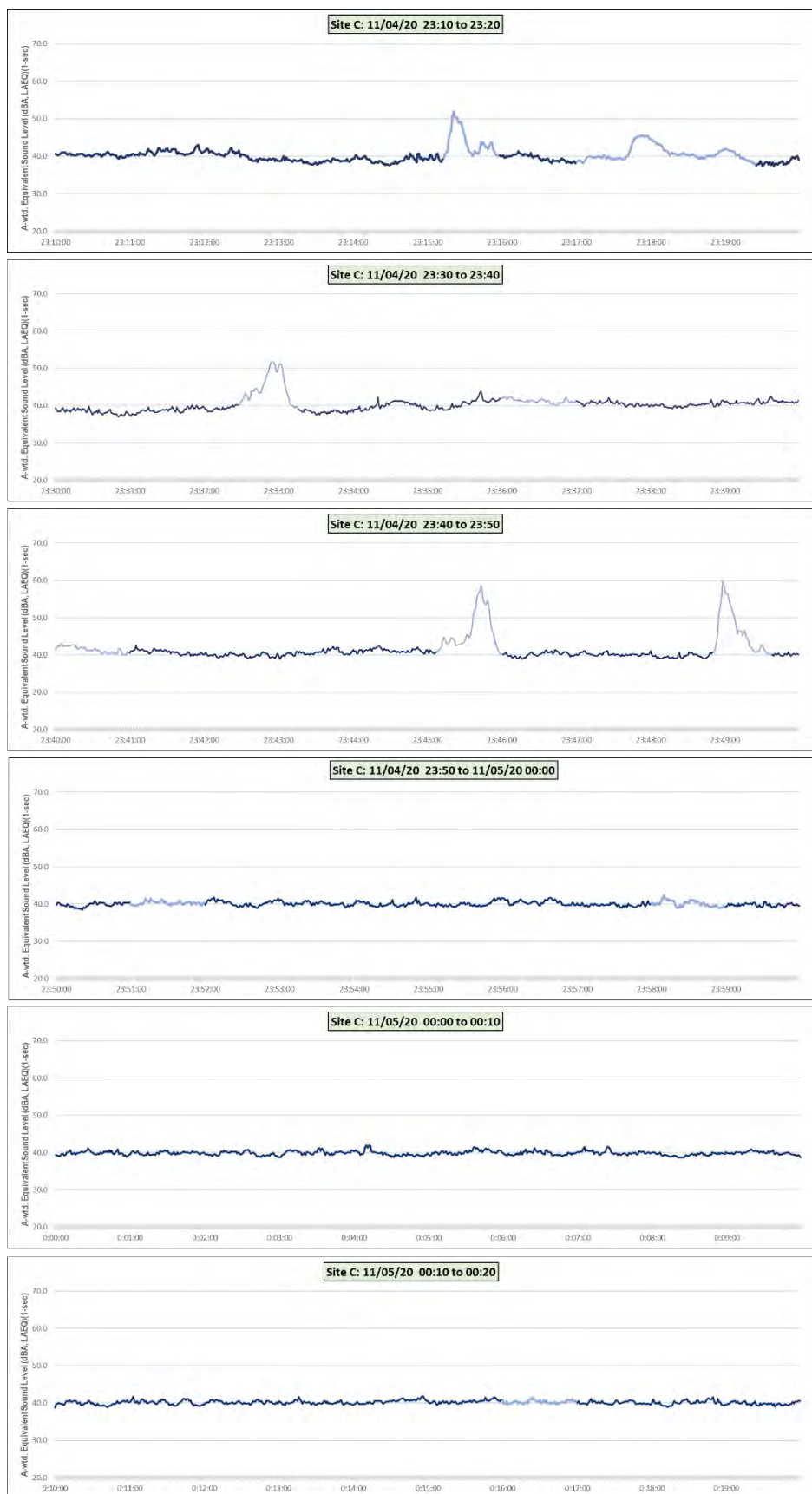


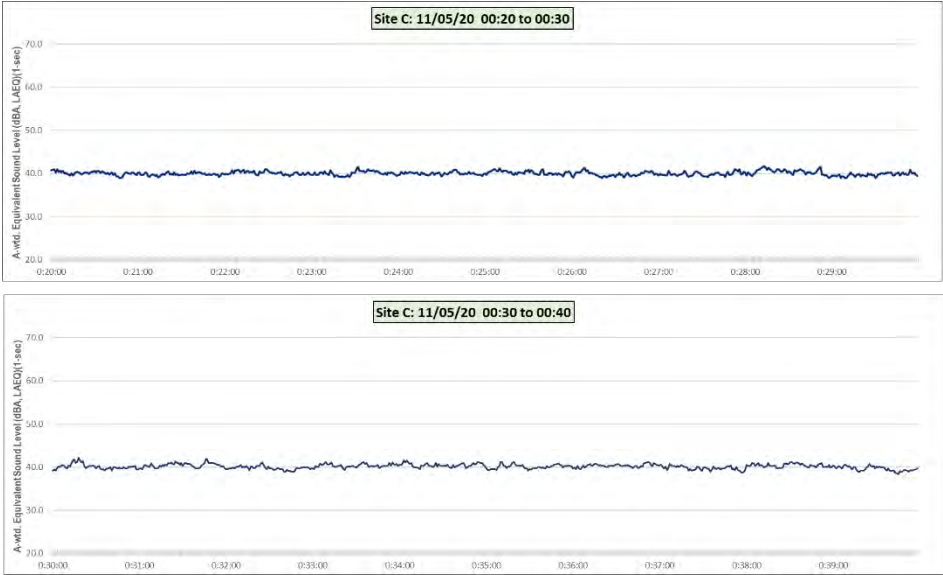
Turbine-on: Nov. 4 22:12:00 to Nov. 4 23:12:00 and Nov. 4 23:36:00 to Nov. 5 00:36:00

1104BSite C Turbine On						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	22:13:05	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	6:43:47	Car/Truck	22:13:05	22:13:50	0:00:45
2	22:21:28	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	6:52:10	Car/Truck	22:21:28	22:22:07	0:00:39
3	22:35:00	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	7:05:42	??	22:35:00	22:40:20	
4	22:41:46	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	7:12:28	Car/Truck	22:41:46	22:42:22	0:00:36
5	22:47:50	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	7:18:32	??	22:47:50	22:48:43	
6	23:45:08	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	8:15:50	Car/Truck	23:45:08	23:46:00	0:00:52
7	23:48:51	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	8:19:33	Car/Truck	23:48:51	23:49:37	0:00:46
						Total Excluded:		0:03:38

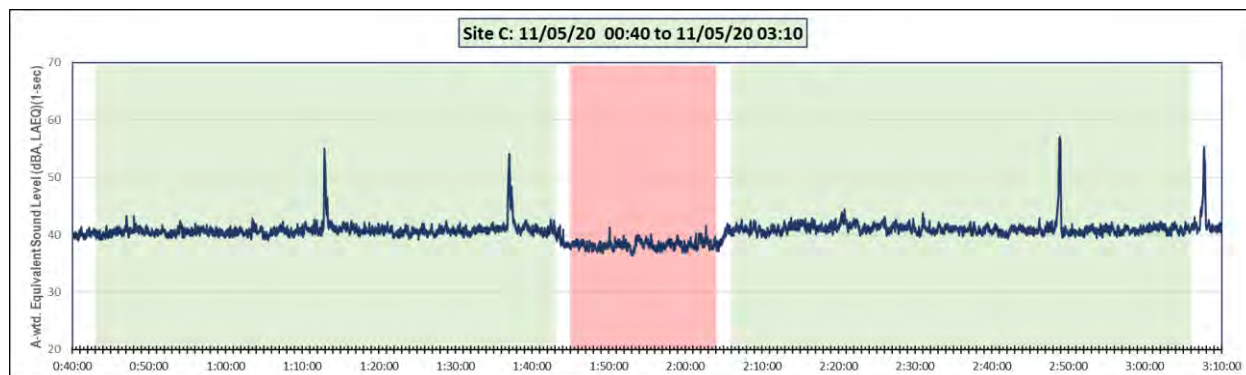
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)					
22:12:00	41.0	60.0	50.0		2.2					
23:36:00	40.1	60.0	53.3		1.4					
		7200	6197	Total Duration (Sec)						







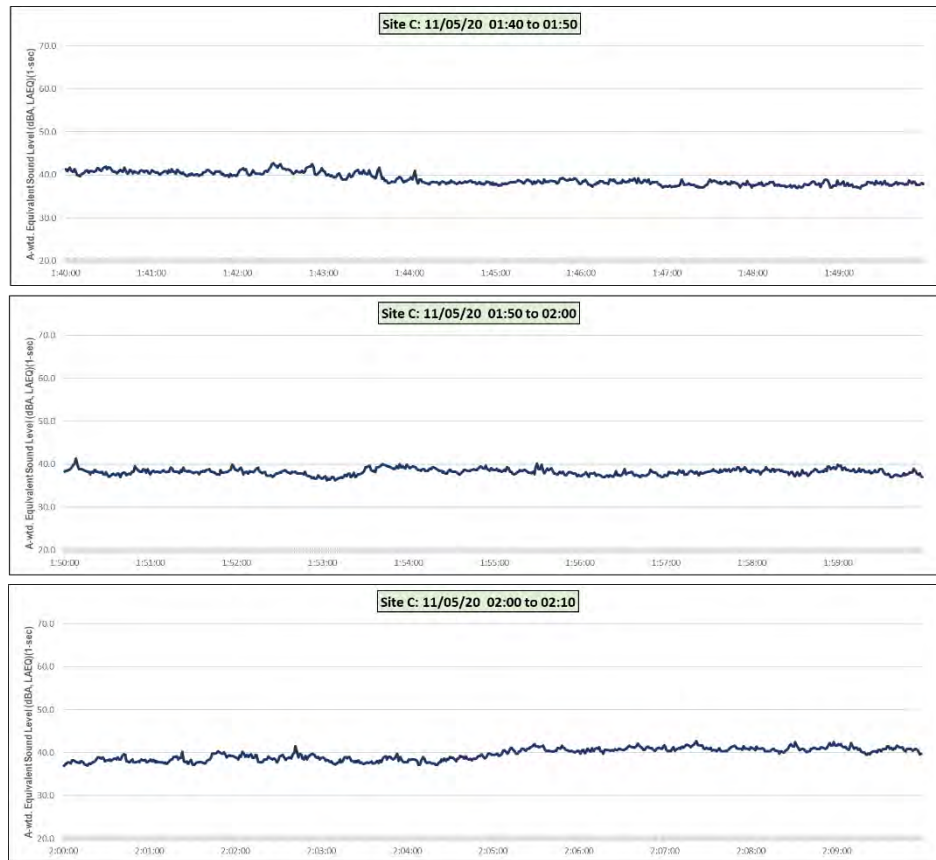
CURTAILMENT 20 – Nov. 5, 2020 01:45 to Nov. 5, 2020 02:04 (1105ASiteC)



Turbine-off: Nov. 5 01:45:00 to Nov. 5 02:04:00

1105A Site C Turbine Off						Period to Exclude	
Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
							0:00:00
Total Excluded:							0:00:00

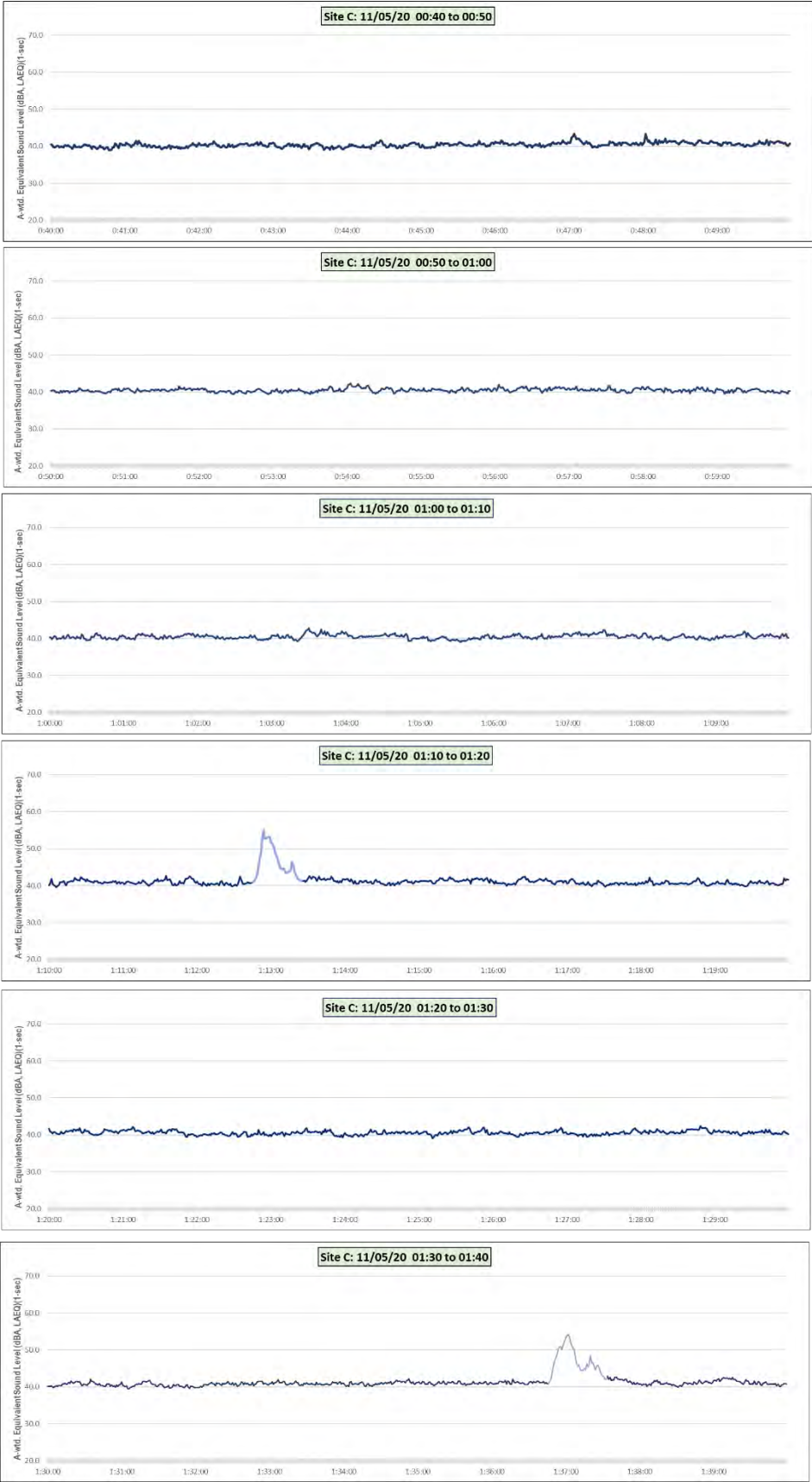
Turbine off: 01:45:00 to 02:03:59									
11/5/2020	1:45:00 Toff	38.3							
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)						
1:45:00	38.3	19.0	19.0						
		1140	1140	Total Duration (Sec)					
Total excluded:				0.0 minutes					
Check from Tables Toff:				0:00:00 minutes					

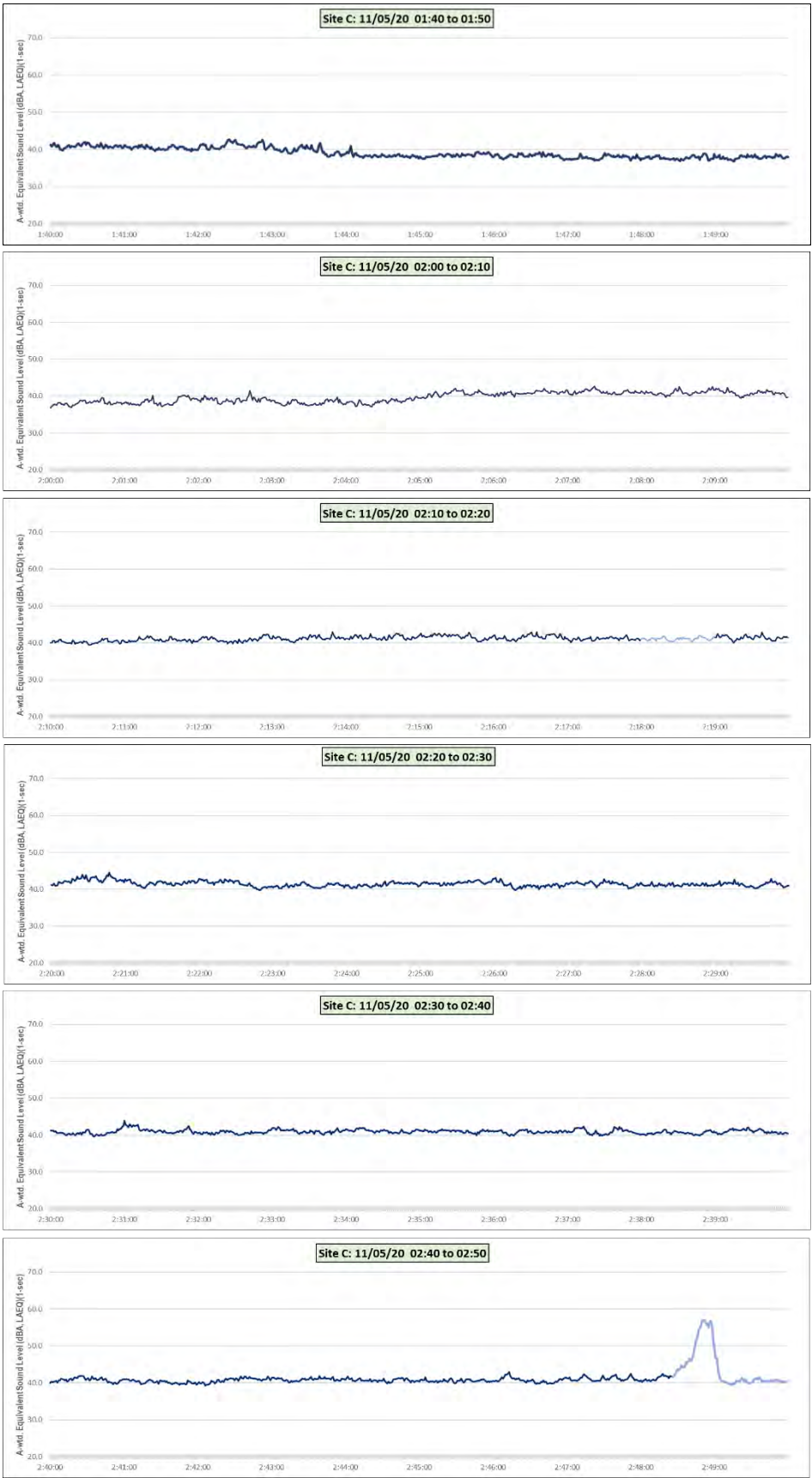


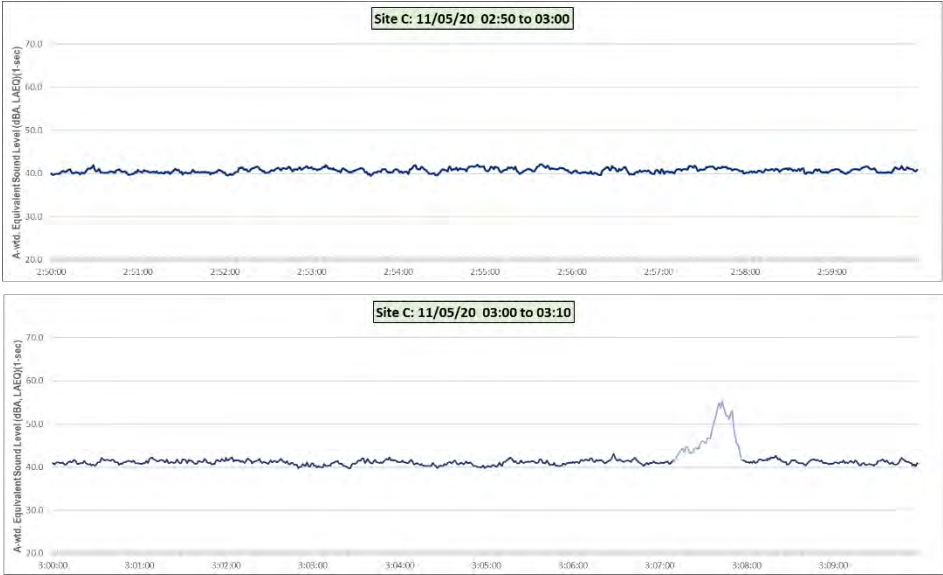
Turbine-on: Nov. 5 00:43:00 to Nov. 5 01:43:00 and Nov. 5 02:06:00 to Nov. 5 03:06:00

1105ASite C Turbine On						Period to Exclude		
Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded	
1	1:12:45 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	9:43:27	Car/Truck	1:12:45	1:13:25	0:00:40	
2	1:36:46 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	10:07:28	Car/Truck	1:36:46	1:37:33	0:00:47	
3	2:48:26 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_02.	15:29:18	11:19:08	Car/Truck	2:48:26	2:49:08	0:00:42	
						Total Excluded:	0:02:09	

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)	Ton - Toff (dB)					
0:43:00	40.7	60.0	58.5	2.4					
2:06:00	41.0	60.0	57.4	2.8					
		7200	6957	Total Duration (Sec)					
					Total excluded:	4.1 minutes	(Total include events from Tables Ton + weather)		
					Check from Tables Ton:	0:02:09 minutes			
These minutes excluded due to wind direction:									
2 minutes						2:18			
						2:49			







1105B Site C Turbine Off						Period to Exclude		
Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded	
					Total Excluded:		0:00:00	

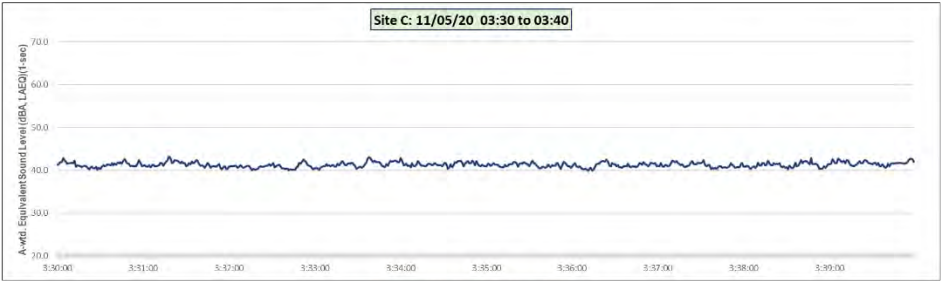
Turbine off: 04:14:00 to 04:33:59			
11/5/2020	4:14:00 ToFF	38.3	
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
4:14:00	38.3	20.0	20.0
		1200	1200
		Total Duration (Sec)	
		Total excluded: 0.0 minutes	
		Check from Tables ToFF: 0:00:00 minutes	

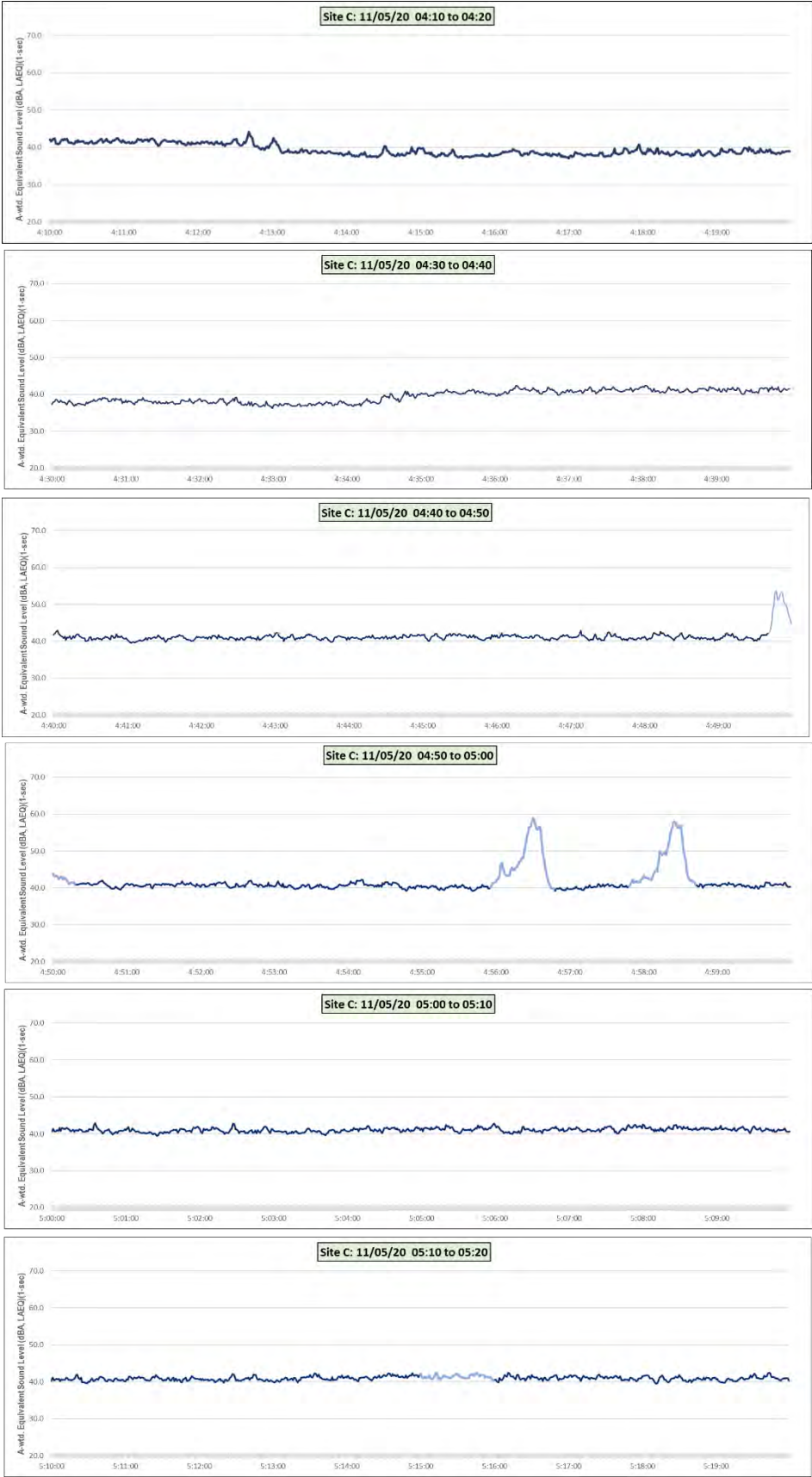


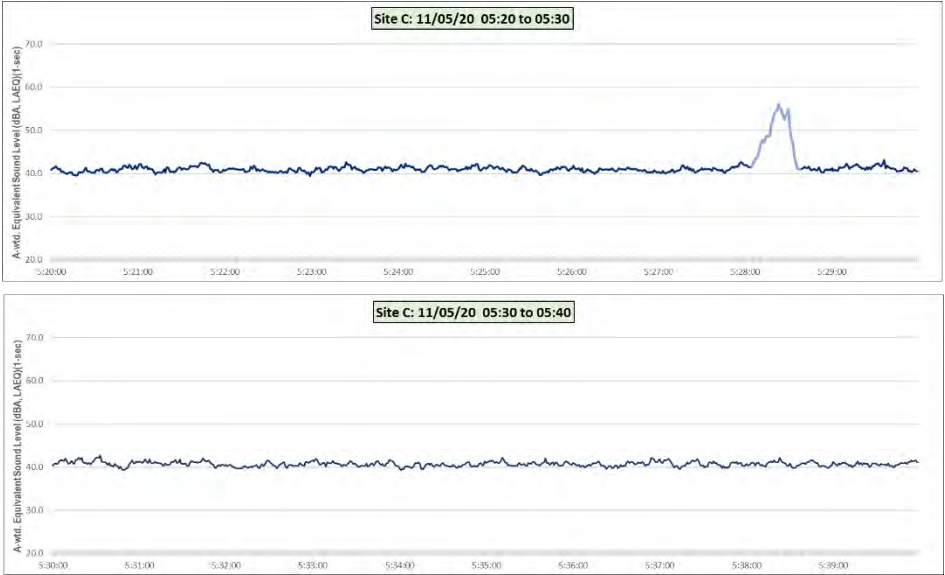
Turbine-on: Nov. 5 03:12:00 to Nov. 5 04:12:00 and Nov. 5 04:36:00 to Nov. 5 05:36:00

1105BSite C Turbine On						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	4:49:41	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_03.	3:29:18	1:20:23	Car/Truck	4:49:41	4:50:18	0:00:37
2	4:55:56	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_03.	3:29:18	1:26:38	Car/Truck	4:55:56	4:56:47	0:00:51
3	4:57:48	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_03.	3:29:18	1:28:30	Car/Truck	4:57:48	4:58:42	0:00:54
4	5:28:04	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_03.	3:29:18	1:58:46	Car/Truck	5:28:04	5:28:38	0:00:34
Total Excluded:								0:02:56

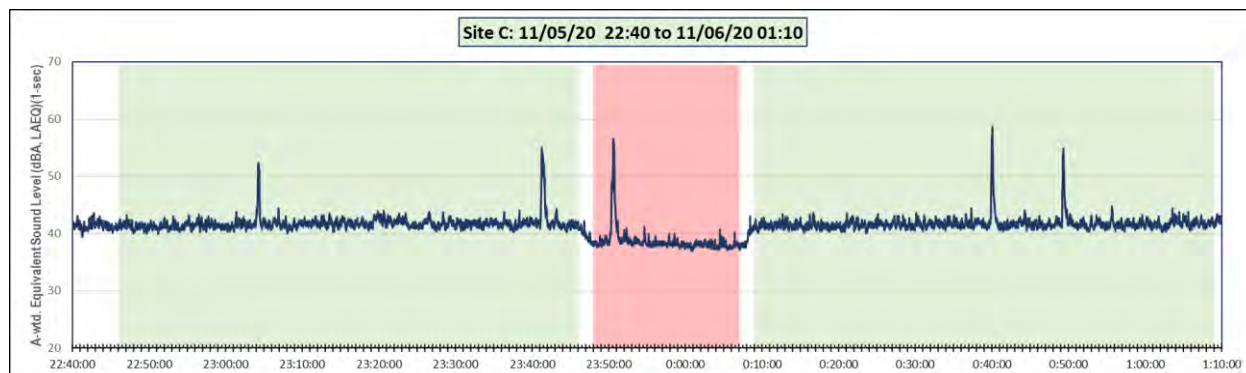
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)	Turbine Only (dBA)				
3:12:00	41.4	60.0	60.0		3.1	38.5				
4:36:00	41.0	60.0	56.0		2.7					
		7200	6960	Total Duration (Sec)						
		</								







CURTAILMENT 22 – Nov. 5, 2020 23:48 to Nov. 6, 2020 00:07 (1105CSiteC)



Turbine-off: Nov. 5 23:48:00 to Nov. 6 00:07:00

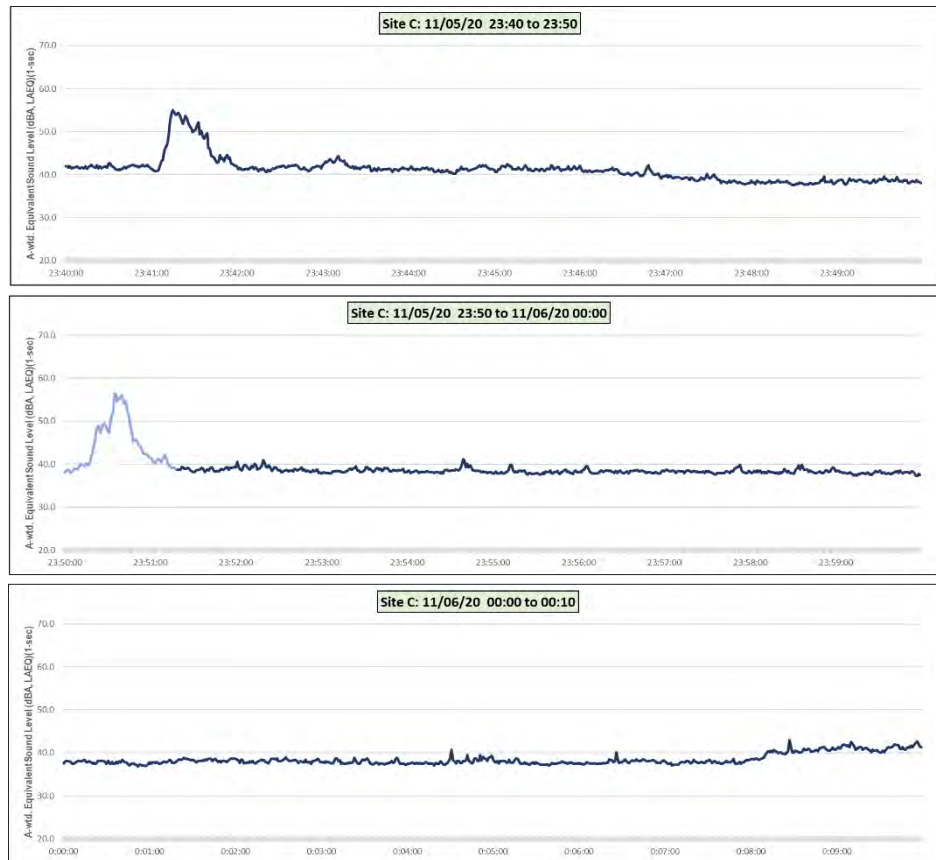
1105C Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	23:50:05	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	8:20:47	Car/Truck	23:50:05	23:51:18	0:01:13
						Total Excluded:		0:01:13

Turbine off: 23:48:00 to 00:06:59

11/5/2020 23:48:00 Toff 38.2

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
23:48:00	38.2	19.0	17.7
		1140	1061
		Total Duration (Sec)	

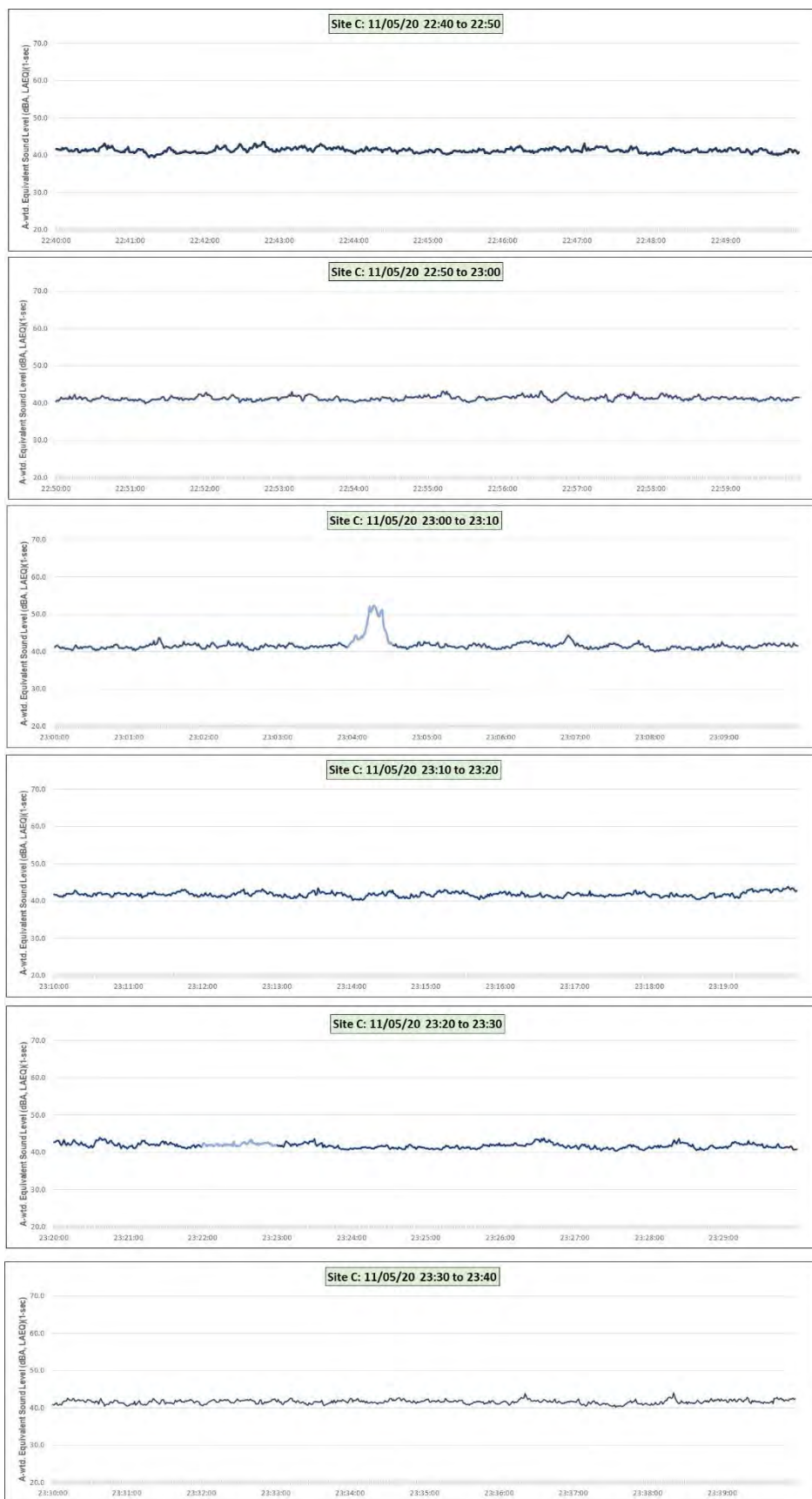
Total excluded: 1.3 minutes
Check from Tables Toff: 0:01:13 minutes

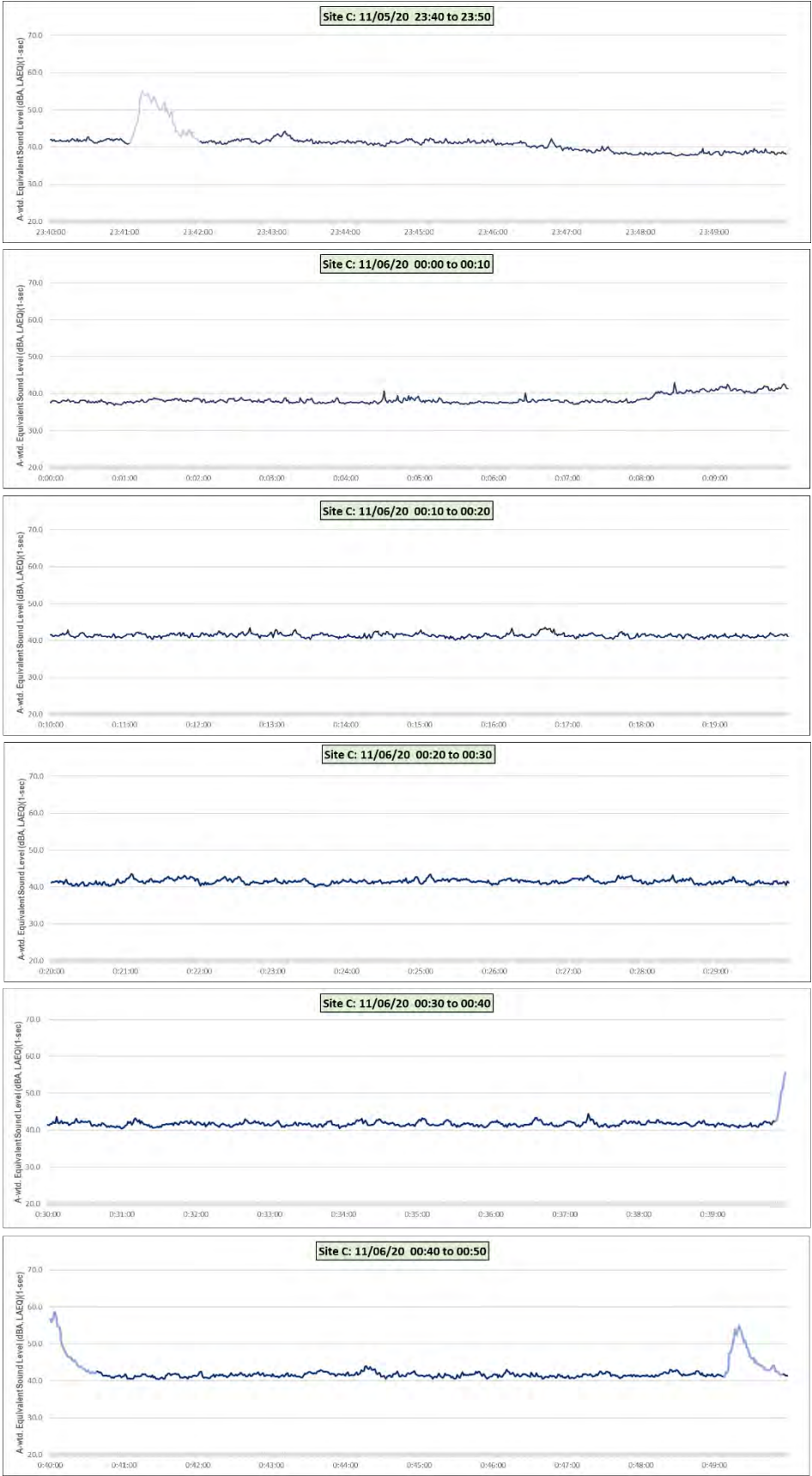


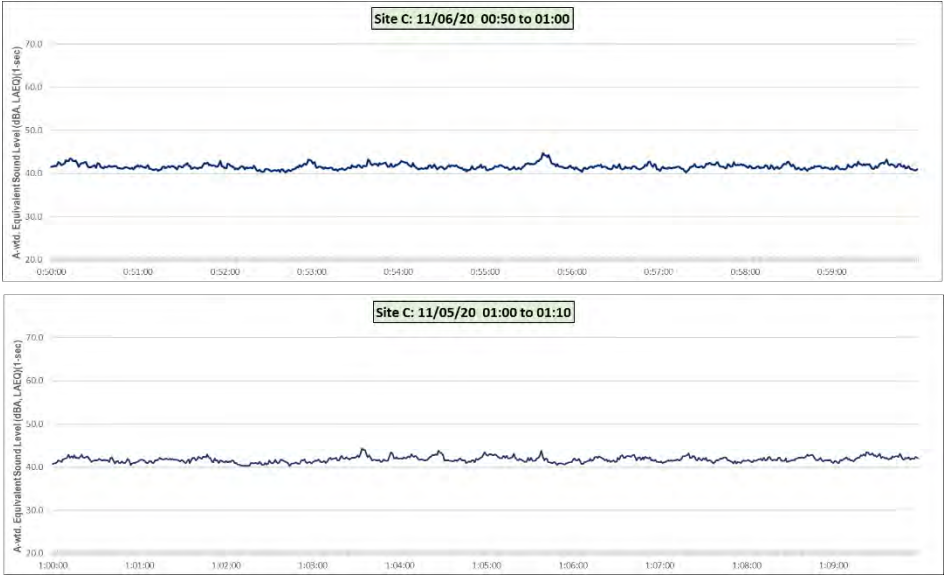
Turbine-on: Nov. 5 22:46:00 to Nov. 5 23:46:00 and Nov. 6 00:09:00 to Nov. 6 01:09:00

1105CSite C Turbine On						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	23:03:57	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	7:34:39	Car/Truck	23:03:57	23:04:32	0:00:35
2	23:41:05	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	8:11:47	Car/Truck	23:41:05	23:42:01	0:00:56
3	0:39:51	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	9:10:33	Car/Truck	0:39:51	0:40:37	0:00:46
4	0:49:08	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	9:19:50	Car/Truck	0:49:08	0:49:55	0:00:47
						Total Excluded:		0:03:04

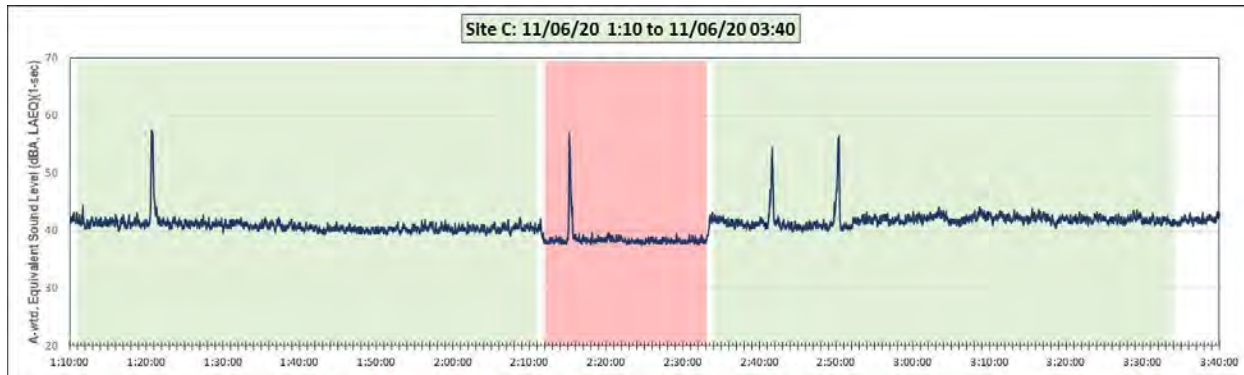
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)	Ton - Toff (dB)	Turbine Only (dBA)					
22:46:00	41.6	60.0	57.5	3.4	38.9					
0:09:00	41.6	60.0	58.4	3.4	38.9					
		7200	6952	Total Duration (Sec)						
					Total excluded:	4.1 minutes	(Total include events from Tables Ton + weather)			
					Check from Tables Ton:	0:03:04 minutes				
These minutes excluded due to wind direction:										
1 minutes						23:22				







CURTAILMENT 23 – Nov. 6, 2020 02:12 to Nov. 6, 2020 02:33 (1106ASiteC)



Turbine-off: Nov. 6 02:12:00 to Nov. 6 02:33:00

1106A Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	2:14:59	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	10:45:41	Car/Truck	2:14:59	2:15:42	0:00:43
Total Excluded:								0:00:43

Turbine off: 02:12:00 to 02:32:59

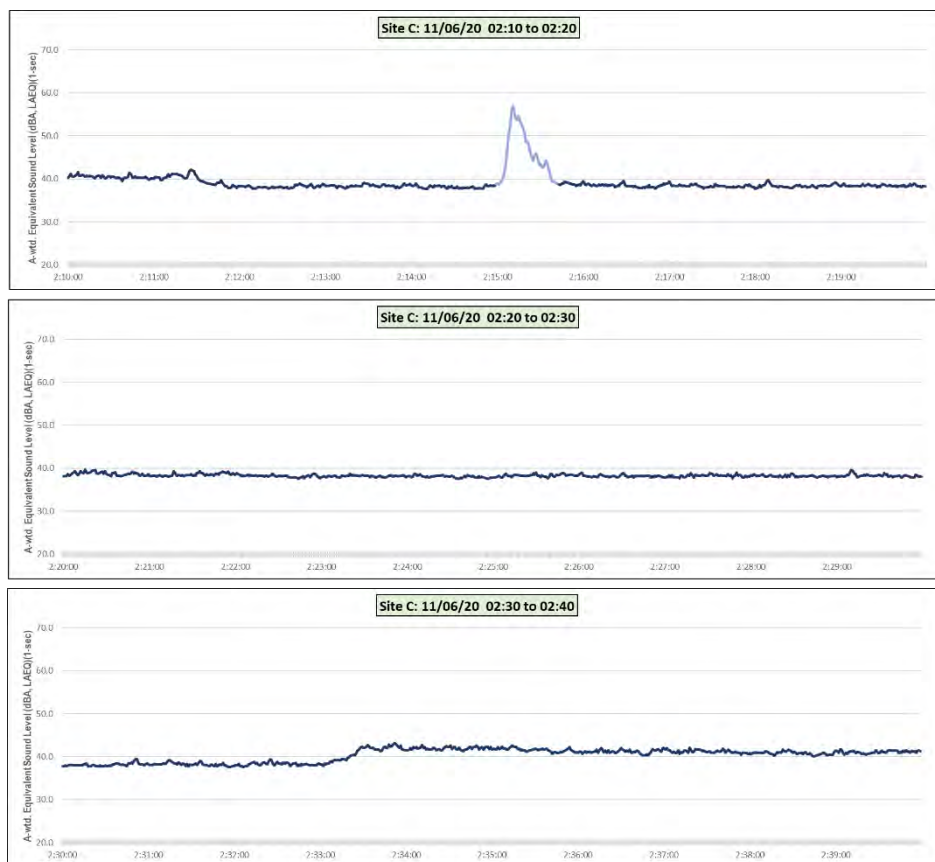
11/6/2020 2:12:00 Toff 38.3

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
2:12:00	38.3	21.0	20.3
		1260	1216
Total Duration (Sec)			

Total excluded: 0.7 minutes (Total includes events from Tables Toff + weather)
Check from Tables Toff: 0:00:43 minutes

These minutes excluded due to wind direction:

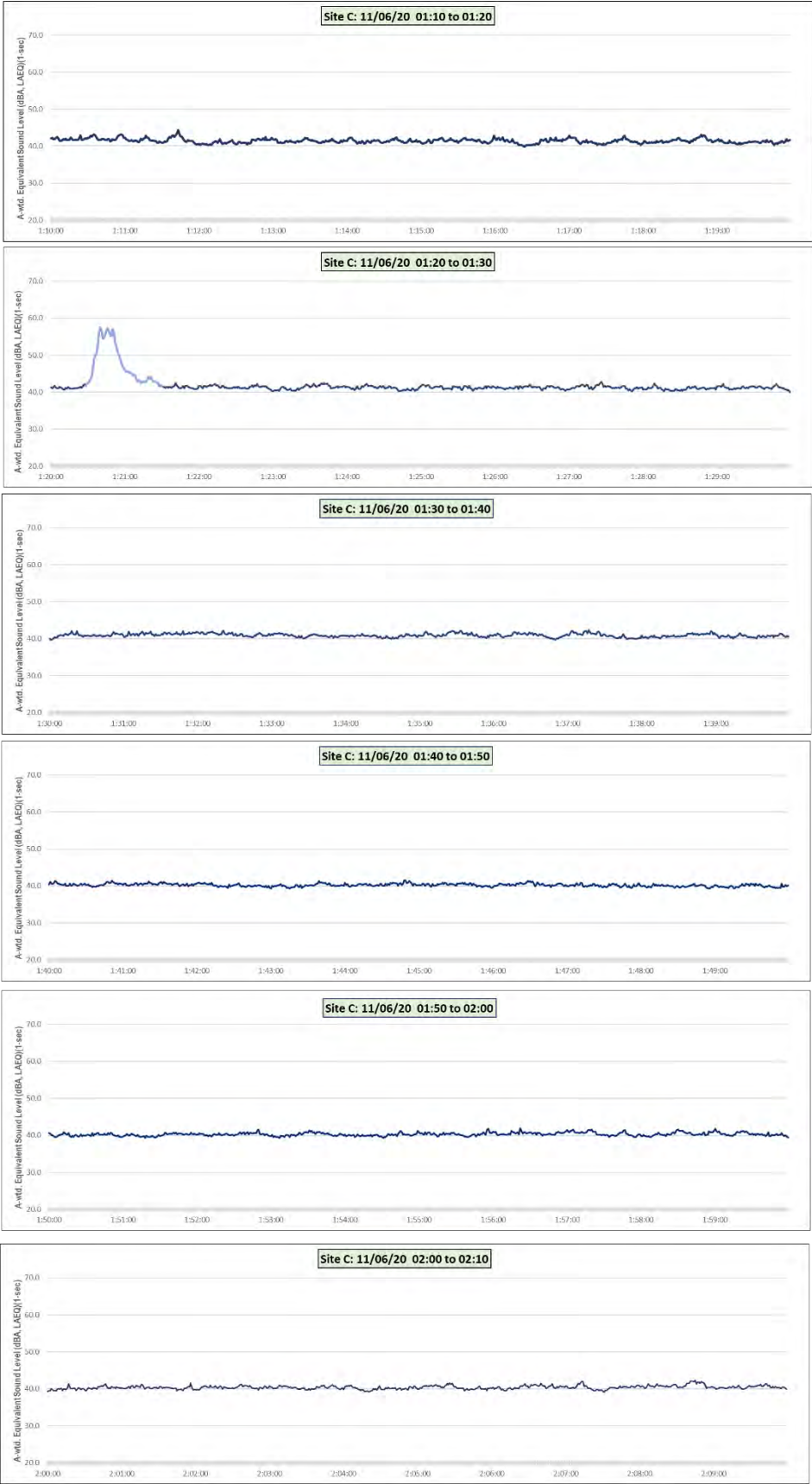
0 minutes



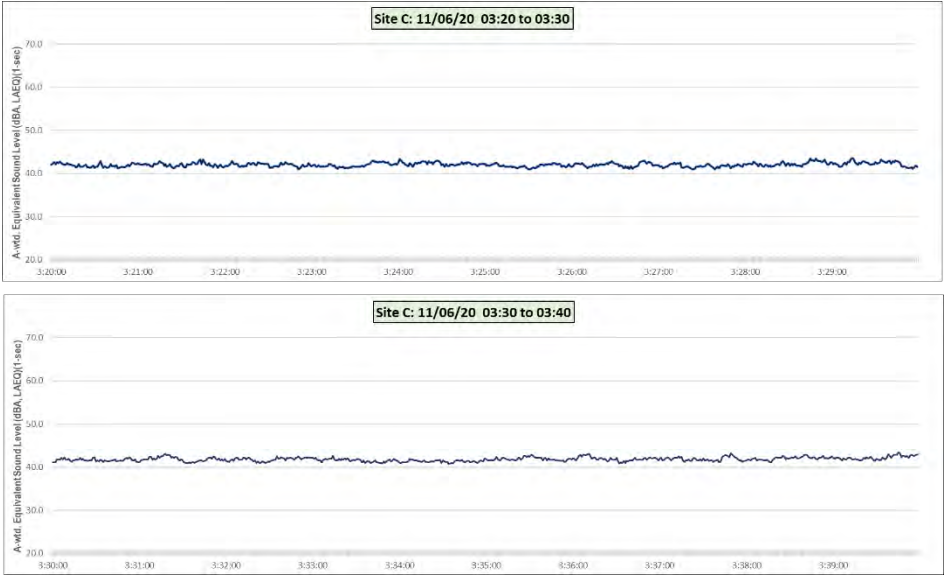
Turbine-on: Nov. 6 01:11:00 to Nov. 6 02:11:00 and Nov. 6 02:34:00 to Nov. 6 03:34:00

1106ASite C Turbine On							Period to Exclude	
Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded	
1	1:20:28 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	9:51:10	Car/Truck	1:20:28	1/1/1900 1:21	0:01:02	
2	2:41:13 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	11:11:55	Car/Truck	2:41:13	2:41:56	0:00:43	
3	2:49:41 2020-11-03_SLM_001_Audio_FS110.9dB(PK)_04.	15:29:18	11:20:23	Car/Truck	2:49:41	2:50:32	0:00:51	
Total Excluded:							0:02:36	

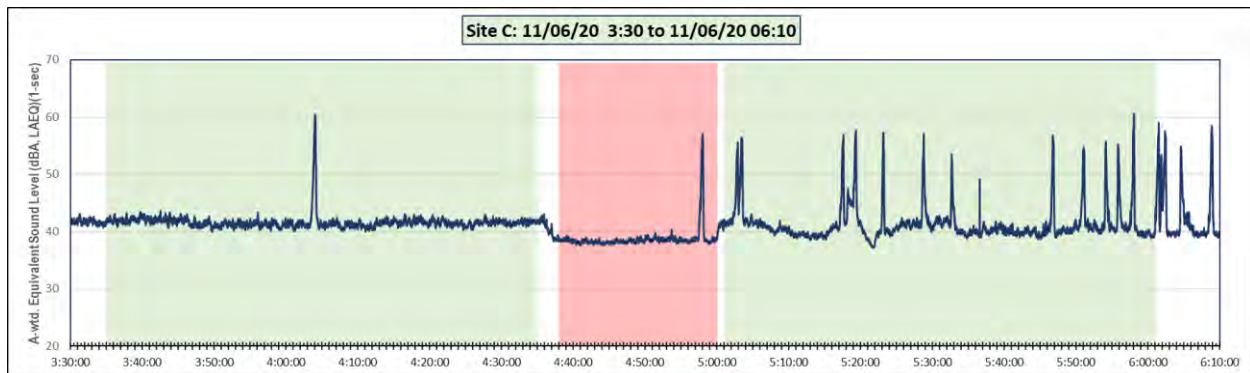
Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)	Turbine Only (dBA)					
1:11:00	40.8	60.0	59.0		2.5						
2:34:00	41.8	60.0	58.4		3.5	39.3					
		7200	7041	Total Duration (Sec)							
								</			







CURTAILMENT 24 – Nov. 6, 2020 04:38 to Nov. 6, 2020 05:00 (1106B Site C)



Turbine-off: Nov. 6 04:38:00 to Nov. 6 05:00:00

1106B Site C Turbine Off						Period to Exclude		
	Exceedance Time	WAV file	Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time Excluded
1	4:57:27	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.	3:29:18	1:28:09	Car/Truck	4:57:27	4:58:18	0:00:51
						Total Excluded:		0:00:51

Turbine off: 04:38:00 to 04:59:59

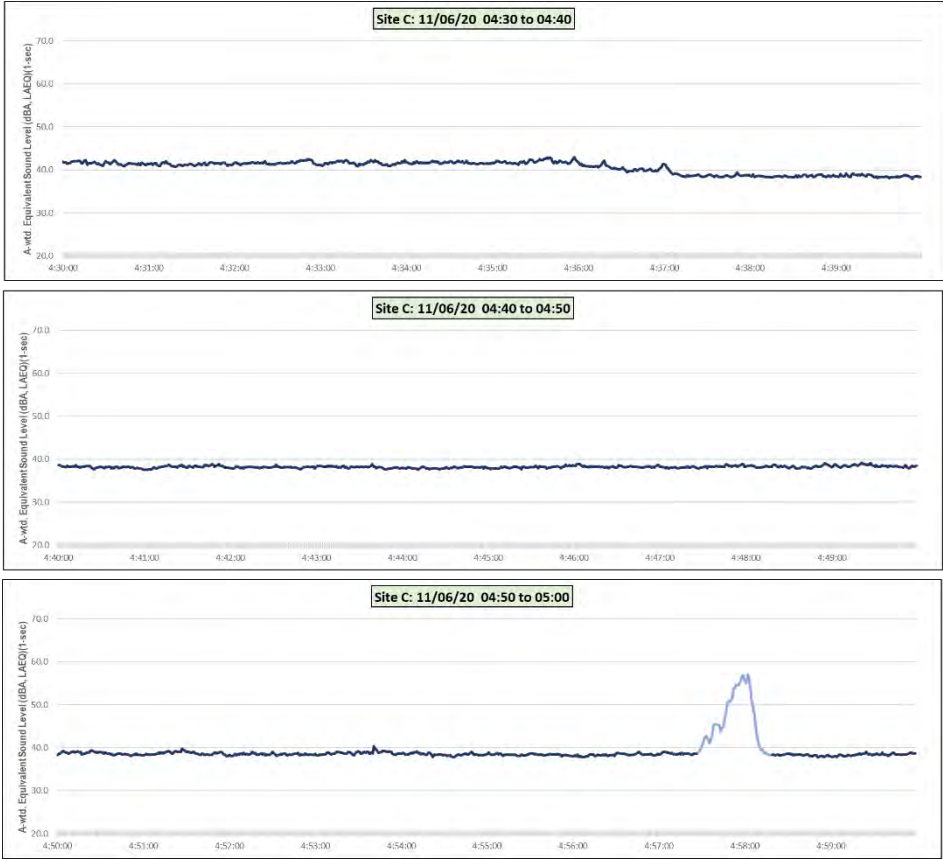
11/6/2020 4:38:00 Toff 38.4

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)
4:38:00	38.4	22.0	21.1
		1320	1268
Total Duration (Sec)			

Total excluded: 0.9 minutes (Total includes events from Tables Toff + weather)
Check from Tables Toff: 0:00:51 minutes

These minutes excluded due to wind direction:

0 minutes



Turbine-on: Nov. 6 03:35:00 to Nov. 6 04:35:00 and Nov. 6 05:01:00 to Nov. 6 06:01:00

1106BSite C Turbine On							Period to Exclude		
				Start of WAV file	WAV file Elapsed Time	Type of Event	Start	End	Time
									Excluded
1	4:03:28	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	0:34:10	Car/Truck	4:03:28	4:04:31	0:01:03
2	5:02:12	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	1:32:54	Car/Truck	5:02:12	5:03:41	0:01:29
3	5:17:06	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	1:47:48	Car/Truck	5:17:06	5:19:40	0:02:34
4	5:22:51	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	1:53:33	Car/Truck	5:22:51	5:23:26	0:00:35
5	5:28:29	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	1:59:11	Car/Truck	5:28:29	5:29:32	0:01:03
6	5:23:33	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	1:54:15	Car/Truck	5:32:33	5:33:25	0:00:52
7	5:36:34	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:07:16	??	5:36:34	5:36:38	0:00:04
8	5:46:22	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:17:04	Car/Truck	5:46:22	5:47:05	0:00:43
9	5:50:34	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:21:16	Car/Truck	5:50:34	5:51:19	0:00:45
10	5:53:57	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:24:39	Car/Truck	5:53:57	5:54:41	0:00:44
11	5:55:41	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:26:23	Car/Truck	5:55:41	5:56:25	0:00:44
12	5:57:30	2020-11-03_SLM_001_Audio_FS110.9dB(PK)_05.		3:29:18	2:28:12	Car/Truck	5:57:30	5:58:16	0:00:46
							Total Excluded:		0:11:22

Start Time	Filtered Leq (dBA)	Total Duration (Min.)	Filtered Duration (Min.)		Ton - Toff (dB)	Turbine Only (dBA)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											</
------------	--------------------	-----------------------	--------------------------	--	-----------------	--------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

