

Appendix C14

Shadow Flicker Report

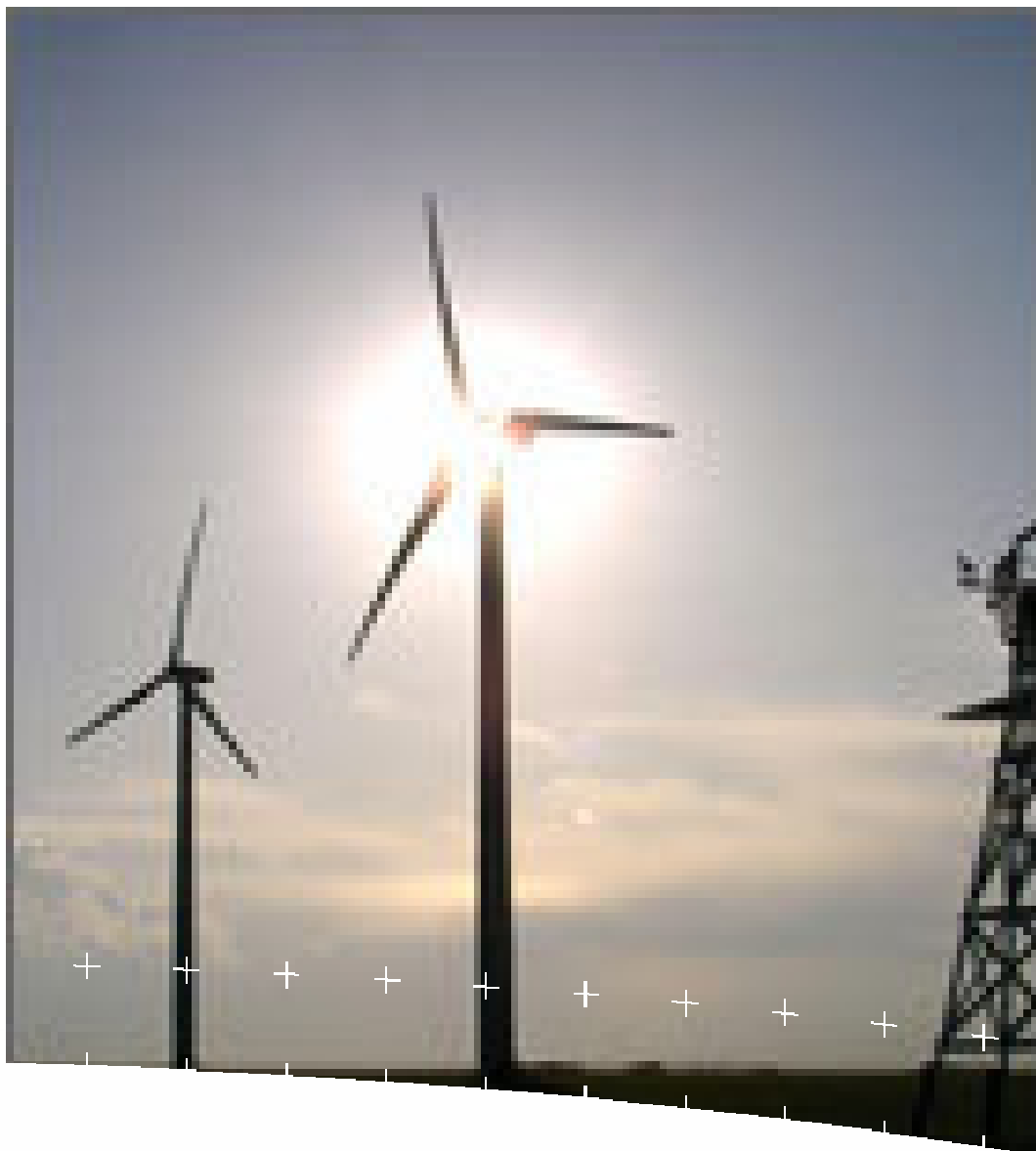
SHADOW FLICKER REPORT

Wolfe Island, Ontario

Prepared for
Canadian Hydro Developers, Inc.

by
Helimax Energy Inc.

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Wind energy consultant for the world

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DEFINITIONS AND SYMBOLS

Hz	hertz
m	metre
MW	megawatt

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1 INTRODUCTION

Access to a reliable and abundant supply of energy is a fundamental concern for society, and is pushing governments and municipalities to set ever more ambitious sustainable development goals. These objectives are likely to be met in large part by wind energy, a clean source of power already being successfully exploited throughout the world. However, a lack of awareness of the effects of wind farms on the environment has raised concerns in local communities preparing to host wind projects.

One of these concerns is shadow flicker, which is defined as the shadows cast by a rotating turbine blade. Shadow flicker becomes a pertinent issue when it reaches the windows of nearby buildings and residences. As part of the Environmental Screening process, Canadian Hydro Developers, Inc. (“Canadian Hydro”) has contracted Helimax Energy (“Hélimax”) to evaluate the potential shadow flicker effects on properties adjacent to its Wolfe Island Wind Project.

Based on the project configuration supplied by Canadian Hydro, Hélimax has performed an analysis of the shadow flicker effect on 591 houses in the vicinity of the wind farm on Wolfe Island, which comprises 86 Siemens 2.3-MW Mk II wind turbines.

Section 2 gives an overview of the shadow flicker phenomenon and health and safety considerations. The calculation model used by Hélimax is explained in Section 3, along with several factors not considered in the model that would most likely reduce the shadow flicker impact. Section 4 examines the input data required for the shadow flicker calculation, while Section 5 presents the results and conclusions of the shadow flicker analysis.

2 SHADOW FLICKER BACKGROUND

2.1 Definition

Shadow flicker is defined as the alternating light intensity produced by a wind turbine as the rotating blade casts shadows on the ground and stationary objects, such as the window of a residence. No flicker will occur when the turbine is not rotating or when the sun is obscured by clouds or fog. When there is sun, a larger turbine rotor diameter will cast a larger shadow, meaning a larger area will be prone to incidences of shadow flicker.

The two key factors related to shadow flicker occurrence (measured in number of hours per year) are i) the spatial relationships between a wind turbine and the receptor and ii) the wind direction. These factors are discussed below, and are later resumed along with additional factors in Table 3-1.

2.1.1 Spatial Relationships

At distances of greater than approximately 500 metres between a turbine and a receptor, shadow flicker generally occurs only at sunrise or sunset when the cast shadows are extremely long. It is generally considered that 900 metres is the limit beyond which shadow flicker becomes insignificant or non-existent. Figure 2-1 shows an approximation of the shadow cast by a turbine at various times during the day, where the red shading represents the area where shadow flicker may occur.

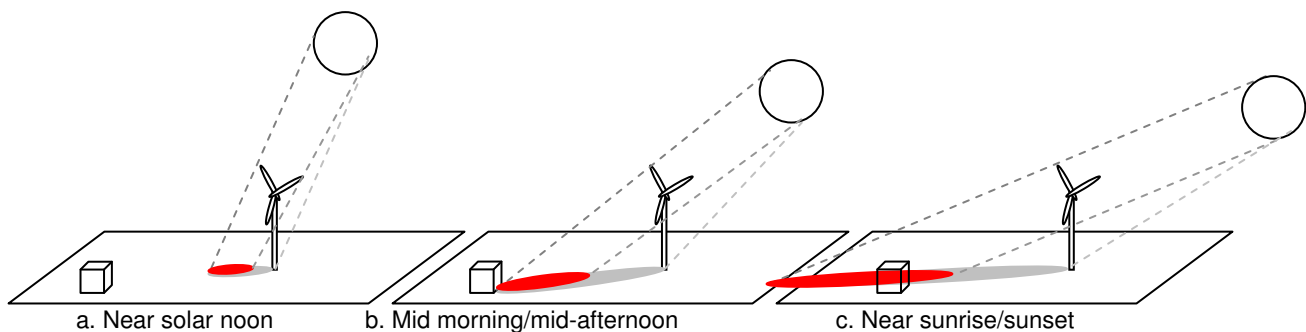


Figure 2-1: Shadow-prone Area as a Function of Time of Day

Buildings to the north or south of wind turbines are less likely to receive shadow flicker than those to the east or west because shadows cast in the northerly and southerly directions are very short.

2.1.2 Wind Direction

The angle between the sun and the rotor plane also plays a determining role for both shadow flicker occurrence and intensity. The rotor plane is determined by the direction of the wind: because the turbine rotor continuously yaws to face the wind, the rotor plane will always be perpendicular to the wind direction. Shadow flicker will be most pronounced when the rotor plane is perpendicular to the sun-receptor line of sight. For more information about how the sun / rotor plane angle influences shadow flicker intensity, refer to Table 3-1.

2.2 Health and Safety Considerations

Beyond the annoyance to local residents, another concern frequently raised is the effects that shadow flicker might have on people with epilepsy.

It should first be emphasized that photosensitivity affects only a small part of those with epilepsy (e.g. 3% to 5% of the 2.7 million epileptics in the U.S.¹). The main characteristics of a stimulus susceptible of causing an epileptic seizure were outlined by a group of international experts gathered by the Epilepsy Foundation. By consensus, it was concluded that photosensitive individuals should not be exposed to flashes greater than 3 Hz (3 flashes per second), while flashing lights between 5 Hz and 30 Hz are the most likely to trigger seizures.^{2, 3} Similarly, Epilepsy Action, United Kingdom, notes that most people with photosensitive epilepsy are sensitive to flickering around 16 to 25 Hz, although some people may be sensitive to rates as low as 3 Hz.⁴

Shadow flicker frequency is proportional to the speed of the rotor, which ranges from 6 to 16 revolutions per minute for the Siemens 2.3 MW Mk II turbine being considered for the Wolfe Island Wind Project. Taking the three blades into consideration, the frequency of flicker would be about 0.3 to 0.8 Hz (i.e., no more than one alternation per second). In terms of health and safety, such low frequencies should be harmless for people with photosensitive epilepsy.

¹ Giuseppe Erba, M.D., *Shedding Light on Photosensitivity, One of Epilepsy's Most Complex Conditions*, March 6, 2006, Special to EpilepsyUSA, <http://www.epilepsyfoundation.org/epilepsyusa/photosensitivity20060306.cfm>

² Fisher RS, Harding G, Erba G, Barkley GL, Wilkins A. *Photic- and pattern-induced seizures: a Review for the Epilepsy Foundation of America Working Group*. *Epilepsia*, Sep 2005, Vol 46, No 9: pp 1423-1425

³ Epilepsy Foundation. 15 September 2005. *Photosensitivity and Seizures*. www.epilepsyfoundation.org/answerplace/Medical/seizures/precipitants/photosensitivity

⁴ Epilepsy Action. 28 October 2005. *Epilepsy Information – Living with Epilepsy: Photosensitive Epilepsy*. www.epilepsy.org.uk/info/photo.html.

3 DESCRIPTION OF WINDFARM MODEL

Shadow flicker was calculated using the industry-standard simulation software WindFarm,⁵ a tool which has been successfully applied to a number of similar studies around the world. The WindFarm model uses a worst case scenario when reporting shadow flicker results. The model assumes that:

1. The sun will always be shining during daylight hours, with no cloud cover or fog.
2. The wind will blow continuously throughout the day and always above cut-in speed, i.e. the turbine will always be rotating.
3. The wind will always be blowing from a direction such that the turbine rotor is aligned with the sun-receptor line. In other words, the rotor will yaw in parallel with the sun such that the rotor blades are always perpendicular to the sun-receptor view line.

A more realistic simulation would use the following assumptions:

1. The sun will not always be shining, therefore it is only necessary to calculate shadow flicker for the fraction of time when the sun would be shining. Data of the average number of hours of sunshine for a given month for the studied location would allow an estimate of this.
2. The rotor will not be turning all the time. The site's long-term wind speed distribution (Weibull distribution) could be used – in conjunction with sunrise and sunset times – to estimate the number of hours the wind can be expected to blow above cut-in speed during daylight hours.
3. The rotor blades will not always be perpendicular to the sun-receptor view line. The frequency distribution of wind direction at the site (wind rose) could be used to estimate the direction that the rotor is likely to face at all times during the year.

Danish studies suggest that using these suppositions would result in a prediction of annual shadow flicker equal to approximately 18% of the worst case assumption.⁶

Only two cases – possibility of flicker or no possibility of flicker – are considered by the WindFarm model. Table 3-1 lists some additional factors that are likely to reduce shadow flicker occurrence and/or intensity when the model predicts that shadow flicker will occur. Furthermore, it is likely that marginally affected receptors may not experience any shadow flicker at all.

⁵ A software program developed by ReSoft for the analysis, design and optimization of wind farms

⁶ www.windpower.org/en/tour/env/shadow/shadowr.htm

Table 3-1: Factors Likely to Reduce Shadow Flicker Occurrence and/or Intensity

Factor	Impact on Shadow Flicker
Weather	Low visibility weather conditions will result in lower shadow flicker intensity.
Screening	Obstacles such as trees or buildings located between the receptor and wind turbine will reduce the occurrence and/or intensity of the shadow flicker.
Hub height	Hub height is of minor importance in shadow flicker calculations. However, a higher hub height means the same shadow will be spread over a larger area, thus somewhat reducing the intensity of the flicker.
Distance	When a turbine is located close enough to a receptor such that the blades cover most of the sun's disc (as seen by the receptor), the flicker intensity will be high. Shadow flicker intensity will diminish at greater distances as the blades will cover a smaller portion of the sun's disc.
Distance	As the distance increases from a turbine, the cast shadow becomes "out of focus." This will cause the flickering to be less distinct.
Distance	Beyond a certain distance from a turbine (somewhere in the range of 500 m to 1000 m or more, depending on the rotor diameter), the rotor will no longer appear to be chopping the light, but rather the turbine will resemble a stationary object with the sun behind it.
Distant hills	Distant hills or mountains may eliminate shadow when the sun is low on the horizon if they are outside the modeled boundary.
Angle between sun and rotor plane	When the rotor plane is in line with the sun and receptor (as seen from the receptor), the cast shadows will be very narrow (equal to the thickness of the blade), of low intensity, and will move quickly past the stationary receptor. The other extreme occurs when the rotor plane is perpendicular to the sun-receptor "line of sight", in which case the cast shadows of the blades will be of maximum size.
Position of sun relative to rotor blade	A wind turbine blade is narrow at the blade tip and increases in width up to the rotor hub. Shadow flicker intensity is thus lowest when the cast shadow originates from the tip of the blades, and increases as the sun moves in along the blade length to a maximum at the rotor hub. The flicker then diminishes as the sun moves back out along the opposite side of the rotor.
Indoor lighting	Because shadows are fainter in a lighted room, switching on lights will lower the intensity of incident shadow flicker. Also, covering a window with curtains, blinds or shutters will eliminate shadow flicker in that room.

4 INPUT DATA

This section outlines the input data necessary to calculate the worst-case extent of turbine-caused shadow flicker at each window for each house in the vicinity of the Wolfe Island. Hélimax was provided with urban planning information for the community of Wolfe Island by Canadian Hydro, including the most recent coordinates of verified receptors and turbine coordinates of the layout.

To perform the simulation, the WindFarm shadow flicker model requires the following data as input:

- A digital elevation model of the site (height contours);
- Optional: topographic map of the area;
- For each proposed wind turbine:
 - Turbine location (coordinates);
 - Turbine rotor diameter;
 - Turbine hub height;
- House location (coordinates);
- For each window of each house:
 - Distance and direction of the window from the coordinate position given for the house;
 - Angle at which the window faces (0 to 360 degrees);
 - Tilt angle of the window;
 - Size (height and width) of the window;
 - Height above ground level of the window.

Given the large number of houses (591), it is difficult to know with certainty the exact number of windows at each house as well as the orientations, dimensions, tilt angle, and height above ground level of each. Thus, Hélimax conducted its simulation using the following assumptions in order to run its simulation model:

- One window is located on each face of the four sides of each house oriented along the roads running on Wolfe Island, which lie approximately on the following axes:
 - 58° – 238°;
 - 148° – 328°;
- Each window measures 1.22 m × 1.22 m for a total area of 1.5 m²;
- All windows have a tilt angle of 0°;
- The centre of each window is located 2 m above ground level.

The model calculates the number of hours of shadow flicker caused by each turbine at each window of each house during the year. Cloud cover information obtained from Environment Canada has also been used in order to adjust the number of hours obtained by the WindFarm software.

Hélimax did not consider the following items in his analysis, which increases the conservancy in the results:

- Presence of trees, high vegetation or other obstacles between house and turbine;
- Periods of low or high wind speed (below approximately 4 m/s or above approximately 25 m/s, respectively), during which turbines will not be operational;
- The directional orientation of the wind turbines in relation to the sun.

Figure 4-1 shows a map of the Wolfe Island wind farm and its surroundings as per the layout supplied by Canadian Hydro.⁷

⁷ Hélimax ID: L235WOLFE(ShadowFlicker)-L19-H591-20070605-YB.WFL

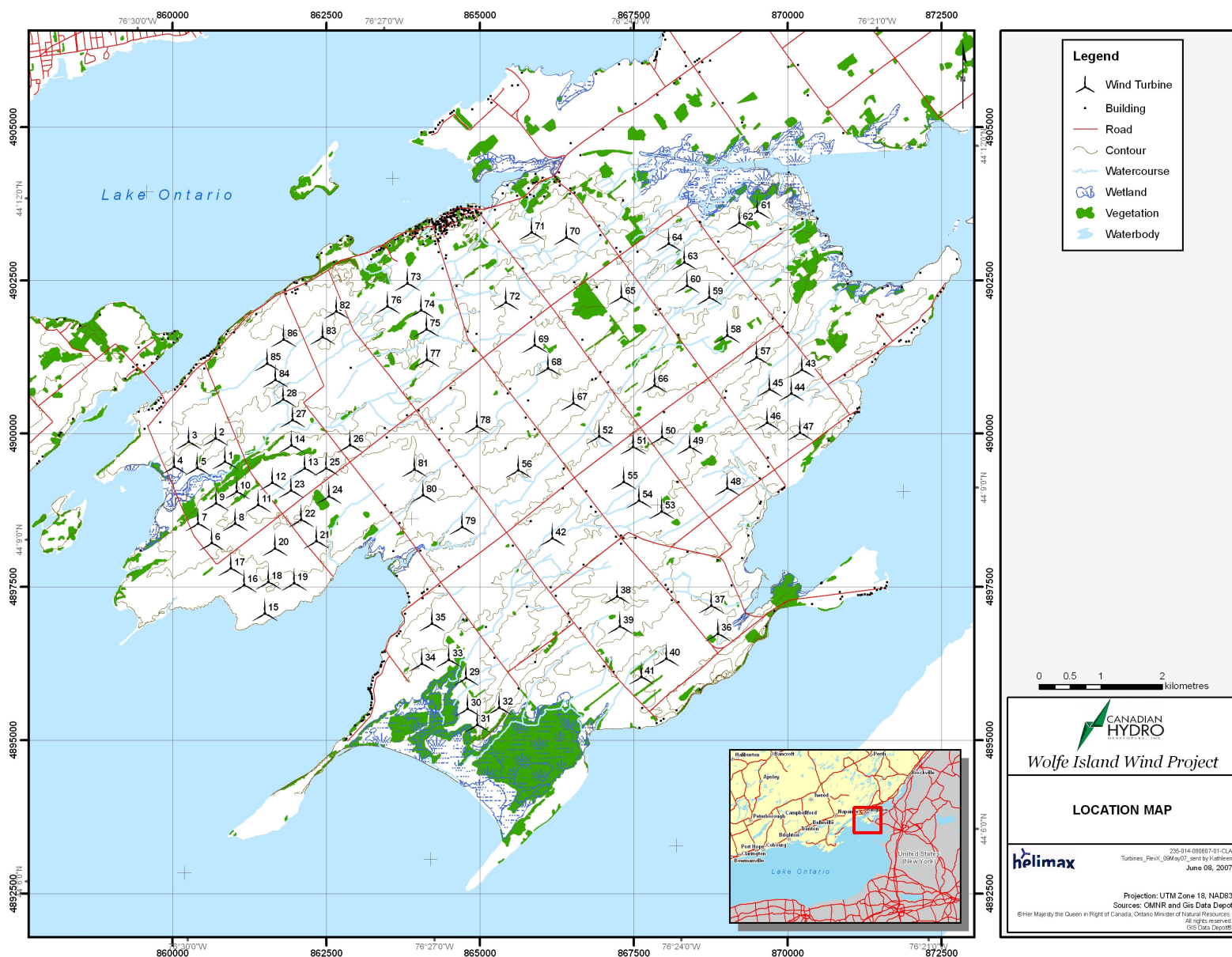


Figure 4-1: Map of Wolfe Island Region with Locations of Turbines and Houses

Table 4-1 below presents the general specifications of the Siemens 2.3-MW Mk II wind turbine. The coordinates of each of the 86 turbine locations of the Wolfe Island wind farm are presented in the 0 A.

Table 4-1: Turbine Description – Siemens 2.3-MW Mk II

Rotor	
Number of rotor blades	3
Rotor diameter [m]	93
Swept area [m ²]	6793
Rotor speed [rpm]	6 – 16 (variable)
Operating Data	
Rated capacity [kW]	2300
Cut-in wind speed [m/s]	4
Cut-out wind speed [m/s]	25
Rated wind speed [m/s]	13-14
Tower	
Hub height [m]	80
Power control	Active blade pitch control

5 RESULTS AND CONCLUSION

Using the 86 possible WTG locations and a list of receptors provided by Canadian Hydro, Hélimax ran shadow flicker simulations with the WindFarm model, and, in doing so, has completed a thorough analysis of the potential for shadow flicker at residences in the vicinity of the Wolfe Island Wind Project.

The shadow flicker analysis has shown that of the 591 dwellings studied, 234 could potentially be concerned by a certain amount of shadow flicker on one or more of their windows. All other houses (i.e. beyond the 234) were considered to be out of range of potential shadow flicker and were therefore excluded from further analysis. By factoring into the WindFarm output a meteorological estimation of yearly cloud cover at the site – see appendix C – in order to account for periods during which the sun is obscured from view, it was found that all windows of all dwellings will experience less than 34.2 hours of shadow flicker annually (Appendix B). It is important to note that receptor R511 is the maintenance shed for the Corus Radio Towers and therefore not considered in this analysis.

Moreover, it is assumed that these values could have been further considerably reduced had the following three factors been taken into consideration:

- Presence of trees, high vegetation or other obstacles between house and turbine;
- Periods of low or high wind speed (below approximately 4 m/s or above approximately 25 m/s, respectively), during which turbines will not be operational;
- The directional orientation of the wind turbines in relation to the sun.

It should also be pointed out that in order for shadow flicker to be a concern, a person must be at home during the potential hours of flicker. Lastly, the following points should be borne in mind when interpreting the results of the Wolfe Island shadow flicker analysis:

- The orientations used for the houses/windows are those considered to be the most representative of the ensemble of residences in the vicinity.
- Actual orientations of individual dwellings may vary.

Had all these variables been factored in, one might expect even fewer hours of shadow flicker at all houses studied. For example, as mentioned in Section 3, based upon Danish experience in comparing the results of shadow flicker analyses (without any consideration for cloud cover) to the actual periods of flicker, it is theoretically possible that the predicted results could be reduced by as much as 82%.

APPENDIX A WIND FARM LAYOUT

The following Table presents the coordinates and elevation for the 86 turbine locations of the wind plant layout. The coordinates are presented in UTM Zone 18, Nad83 format.

Coordinates of Turbines in the Wind Farm Layout⁸

Turbine ID	East	North	Elevation [m amsl]
1	381096	4890718	80
2	380970	4891106	80
3	380532	4891086	80
4	380265	4890695	79
5	380642	4890651	80
6	380783	4889413	82
7	380588	4889742	82
8	381190	4889698	84
9	380898	4890050	82
10	381248	4890217	85
11	381585	4889978	85
12	381835	4890321	85
13	382379	4890517	85
14	382188	4890906	83
15	381558	4888203	77
16	381258	4888690	78
17	381067	4888979	79
18	381653	4888713	80
19	382071	4888659	79
20	381804	4889250	83
21	382480	4889320	82
22	382263	4889684	85
23	382130	4890170	85
24	382735	4890034	84
25	382725	4890491	85
26	383140	4890843	84
27	382239	4891316	80
28	382110	4891661	80
29	384739	4886915	80
30	384728	4886411	80
31	384870	4886140	80
32	385244	4886397	85
33	384487	4887236	80
34	384045	4887203	80
35	384255	4887842	80
36	388872	4887339	80
37	388798	4887799	80
38	387285	4888063	90
39	387296	4887573	87
40	388007	4886993	81
41	387583	4886726	80
42	386303	4889081	83
43	390549	4891528	85

⁸ L235WOLFE(ShadowFlicker)-L19-H591-20070605-YB.WFL

Turbine ID	East	North	Elevation [m amsl]
44	390346	4891151	86
45	389996	4891249	85
46	389920	4890710	90
47	390438	4890506	90
48	389199	4889695	85
49	388637	4890406	90
50	388202	4890596	90
51	387725	4890476	90
52	387186	4890684	85
53	388107	4889392	90
54	387751	4889593	90
55	387531	4889914	89
56	385835	4890230	86
57	389830	4891783	90
58	389380	4892171	95
59	389135	4892814	95
60	388788	4893031	95
61	390017	4894155	80
62	389709	4893992	81
63	388770	4893412	92
64	388541	4893734	85
65	387713	4892924	96
66	388141	4891451	95
67	386810	4891256	89
68	386436	4891850	95
69	386252	4892239	98
70	386887	4893953	93
71	386332	4894081	89
72	385835	4892968	95
73	384261	4893401	86
74	384449	4892947	87
75	384516	4892627	86
76	383914	4893048	85
77	384485	4892136	85
78	385215	4890994	90
79	384859	4889375	81
80	384263	4889938	83
81	384157	4890367	85
82	383075	4893026	85
83	382824	4892624	85
84	382011	4891987	81
85	381893	4892264	82
86	382192	4892633	85

APPENDIX B SHADOWS FLICKER RESULTS

The following table presents the results of shadow flicker on each window taking into account the estimation of yearly cloud cover at the site, for which the sun is obscured and no shadow flicker occurs.

Total Number of Shadow Flicker Hours on each Window of each Dwelling

House	Window	Easting	Northing	Total Hours
1	1	384572	4894240	0.0
	2	384572	4894240	0.0
	3	384572	4894240	0.0
	4	384572	4894240	0.0
2	1	384488	4894197	0.0
	2	384488	4894197	0.0
	3	384488	4894197	0.0
	4	384488	4894197	0.0
3	1	384405	4894123	0.0
	2	384405	4894123	0.0
	3	384405	4894123	0.0
	4	384405	4894123	0.0
4	1	384431	4894139	0.0
	2	384431	4894139	0.0
	3	384431	4894139	0.0
	4	384431	4894139	0.0
5	1	384568	4894285	0.0
	2	384568	4894285	0.0
	3	384568	4894285	0.0
	4	384568	4894285	0.0
6	1	384639	4894134	0.0
	2	384639	4894134	0.0
	3	384639	4894134	0.0
	4	384639	4894134	0.0
7	1	384686	4894101	0.0
	2	384686	4894101	0.0
	3	384686	4894101	0.0
	4	384686	4894101	0.0
8	1	377315	4891635	0.0
	2	377315	4891635	0.0
	3	377315	4891635	0.0
	4	377315	4891635	0.0
9	1	377273	4891606	0.0
	2	377273	4891606	0.0
	3	377273	4891606	0.0
	4	377273	4891606	0.0
10	1	377247	4891562	0.0
	2	377247	4891562	0.0
	3	377247	4891562	0.0
	4	377247	4891562	0.0
11	1	377212	4891483	0.0
	2	377212	4891483	0.0

	3	377212	4891483	0.0
	4	377212	4891483	0.0
12	1	377200	4891432	0.0
	2	377200	4891432	0.0
	3	377200	4891432	0.0
	4	377200	4891432	0.0
13	1	377215	4891304	0.0
	2	377215	4891304	0.0
	3	377215	4891304	0.0
	4	377215	4891304	0.0
14	1	378148	4891012	0.0
	2	378148	4891012	0.0
	3	378148	4891012	0.0
	4	378148	4891012	0.0
15	1	378084	4890938	0.0
	2	378084	4890938	0.0
	3	378084	4890938	0.0
	4	378084	4890938	0.0
16	1	378050	4890905	0.0
	2	378050	4890905	0.0
	3	378050	4890905	0.0
	4	378050	4890905	0.0
17	1	377908	4890838	0.0
	2	377908	4890838	0.0
	3	377908	4890838	0.0
	4	377908	4890838	0.0
18	1	378462	4891359	0.0
	2	378462	4891359	0.0
	3	378462	4891359	0.0
	4	378462	4891359	0.0
19	1	377960	4892147	0.0
	2	377960	4892147	0.0
	3	377960	4892147	0.0
	4	377960	4892147	0.0
20	1	380059	4891626	17.2
	2	380059	4891626	17.4
	3	380059	4891626	0.0
	4	380059	4891626	0.0
21	1	379833	4891337	20.4
	2	379833	4891337	20.6
	3	379833	4891337	0.0
	4	379833	4891337	0.0
22	1	383743	4890912	13.8
	2	383743	4890912	13.9
	3	383743	4890912	17.7
	4	383743	4890912	17.6
23	1	380546	4892115	0.0
	2	380546	4892115	0.0
	3	380546	4892115	0.0
	4	380546	4892115	0.0
24	1	380616	4892183	0.0

	2	380616	4892183	0.0
	3	380616	4892183	0.0
	4	380616	4892183	0.0
25	1	380659	4892232	0.0
	2	380659	4892232	0.0
	3	380659	4892232	0.0
	4	380659	4892232	0.0
26	1	381780	4893070	16.3
	2	381780	4893070	16.5
	3	381780	4893070	0.0
	4	381780	4893070	0.0
27	1	382283	4893364	11.2
	2	382283	4893364	11.2
	3	382283	4893364	0.0
	4	382283	4893364	0.0
28	1	379621	4889365	3.4
	2	379621	4889365	3.4
	3	379621	4889365	0.0
	4	379621	4889365	0.0
29	1	384597	4890820	10.4
	2	384597	4890820	10.2
	3	384597	4890820	0.0
	4	384597	4890820	0.0
30	1	383636	4889815	18.1
	2	383636	4889815	18.0
	3	383636	4889815	9.3
	4	383636	4889815	9.3
31	1	383851	4889505	3.6
	2	383851	4889505	3.6
	3	383851	4889505	0.0
	4	383851	4889505	0.0
32	1	384151	4889034	0.0
	2	384151	4889034	0.0
	3	384151	4889034	0.0
	4	384151	4889034	0.0
33	1	385122	4887713	0.0
	2	385122	4887713	0.0
	3	385122	4887713	10.7
	4	385122	4887713	10.7
34	1	385855	4887272	0.0
	2	385855	4887272	0.0
	3	385855	4887272	4.4
	4	385855	4887272	4.4
35	1	386989	4886935	12.4
	2	386989	4886935	12.4
	3	386989	4886935	0.0
	4	386989	4886935	0.0
36	1	387559	4886216	0.0
	2	387559	4886216	0.0
	3	387559	4886216	0.0
	4	387559	4886216	0.0

37	1	388515	4886440	0.0
	2	388515	4886440	0.0
	3	388515	4886440	3.7
	4	388515	4886440	3.7
38	1	389150	4888098	0.0
	2	389150	4888098	11.1
	3	389150	4888098	11.3
	4	389150	4888098	0.0
39	1	388169	4888063	13.8
	2	388169	4888063	13.9
	3	388169	4888063	8.4
	4	388169	4888063	8.4
40	1	388113	4888113	11.9
	2	388113	4888113	12.0
	3	388113	4888113	5.1
	4	388113	4888113	5.1
41	1	388081	4888183	12.6
	2	388081	4888183	12.7
	3	388081	4888183	5.8
	4	388081	4888183	5.7
42	1	387414	4888905	0.0
	2	387414	4888905	0.0
	3	387414	4888905	2.8
	4	387414	4888905	2.8
43	1	388477	4888697	0.0
	2	388477	4888697	0.0
	3	388477	4888697	0.0
	4	388477	4888697	0.0
44	1	386776	4888609	11.1
	2	386776	4888609	11.2
	3	386776	4888609	3.2
	4	386776	4888609	3.3
45	1	386218	4888280	3.0
	2	386218	4888280	3.0
	3	386218	4888280	0.0
	4	386218	4888280	0.0
46	1	386472	4887836	14.1
	2	386472	4887836	14.1
	3	386472	4887836	0.0
	4	386472	4887836	0.0
47	1	386483	4887698	5.2
	2	386483	4887698	5.2
	3	386483	4887698	0.0
	4	386483	4887698	0.0
48	1	385063	4889989	6.5
	2	385063	4889989	6.4
	3	385063	4889989	9.5
	4	385063	4889989	9.5
49	1	385654	4890593	0.0
	2	385654	4890593	21.6
	3	385654	4890593	29.0

	4	385654	4890593	7.5
50	1	386152	4890866	3.3
	2	386152	4890866	3.3
	3	386152	4890866	3.8
	4	386152	4890866	3.8
51	1	385754	4891483	3.0
	2	385754	4891483	3.0
	3	385754	4891483	0.0
	4	385754	4891483	0.0
52	1	385802	4891555	3.1
	2	385802	4891555	3.1
	3	385802	4891555	0.0
	4	385802	4891555	0.0
53	1	385179	4892537	2.8
	2	385179	4892537	2.8
	3	385179	4892537	20.2
	4	385179	4892537	20.2
54	1	385056	4893287	4.7
	2	385056	4893287	4.8
	3	385056	4893287	19.6
	4	385056	4893287	19.6
55	1	385789	4893961	20.8
	2	385789	4893961	20.6
	3	385789	4893961	0.0
	4	385789	4893961	0.0
56	1	387281	4891718	4.2
	2	387281	4891718	4.2
	3	387281	4891718	7.9
	4	387281	4891718	7.9
57	1	391233	4891382	0.0
	2	391233	4891382	0.0
	3	391233	4891382	12.1
	4	391233	4891382	12.1
58	1	390365	4892138	0.0
	2	390365	4892138	8.7
	3	390365	4892138	12.4
	4	390365	4892138	3.6
59	1	390332	4892471	0.0
	2	390332	4892471	0.0
	3	390332	4892471	5.3
	4	390332	4892471	5.3
60	1	389886	4892727	0.0
	2	389886	4892727	0.0
	3	389886	4892727	8.6
	4	389886	4892727	8.6
61	1	389344	4893699	0.0
	2	389344	4893699	0.0
	3	389344	4893699	21.4
	4	389344	4893699	21.3
62	1	388023	4893632	31.3
	2	388023	4893632	31.2

	3	388023	4893632	2.6
	4	388023	4893632	2.6
63	1	387687	4893722	8.5
	2	387687	4893722	8.5
	3	387687	4893722	5.1
	4	387687	4893722	5.1
64	1	387435	4894101	2.6
	2	387435	4894101	2.6
	3	387435	4894101	15.1
	4	387435	4894101	15.0
65	1	387074	4894668	0.0
	2	387074	4894668	0.0
	3	387074	4894668	0.0
	4	387074	4894668	0.0
66	1	386999	4894652	0.0
	2	386999	4894652	0.0
	3	386999	4894652	0.0
	4	386999	4894652	0.0
67	1	389354	4888531	0.0
	2	389354	4888531	0.0
	3	389354	4888531	0.0
	4	389354	4888531	0.0
68	1	390021	4889562	0.0
	2	390021	4889562	0.0
	3	390021	4889562	4.8
	4	390021	4889562	4.8
69	1	390899	4890339	0.0
	2	390899	4890339	0.0
	3	390899	4890339	17.4
	4	390899	4890339	17.4
70	1	391235	4890633	0.0
	2	391235	4890633	0.0
	3	391235	4890633	10.4
	4	391235	4890633	10.3
71	1	391274	4890672	0.0
	2	391274	4890672	0.0
	3	391274	4890672	9.5
	4	391274	4890672	9.5
72	1	391348	4890749	0.0
	2	391348	4890749	0.0
	3	391348	4890749	10.9
	4	391348	4890749	11.0
73	1	391390	4890767	0.0
	2	391390	4890767	0.0
	3	391390	4890767	14.0
	4	391390	4890767	14.0
74	1	391417	4890765	0.0
	2	391417	4890765	0.0
	3	391417	4890765	14.6
	4	391417	4890765	14.6
75	1	377776	4890763	0.0

	2	377776	4890763	0.0
	3	377776	4890763	0.0
	4	377776	4890763	0.0
76	1	377853	4890770	0.0
	2	377853	4890770	0.0
	3	377853	4890770	0.0
	4	377853	4890770	0.0
77	1	377894	4890790	0.0
	2	377894	4890790	0.0
	3	377894	4890790	0.0
	4	377894	4890790	0.0
78	1	377869	4890824	0.0
	2	377869	4890824	0.0
	3	377869	4890824	0.0
	4	377869	4890824	0.0
79	1	380415	4891981	0.0
	2	380415	4891981	0.0
	3	380415	4891981	0.0
	4	380415	4891981	0.0
80	1	380476	4892022	0.0
	2	380476	4892022	0.0
	3	380476	4892022	0.0
	4	380476	4892022	0.0
81	1	380704	4892272	3.0
	2	380704	4892272	3.0
	3	380704	4892272	0.0
	4	380704	4892272	0.0
82	1	380740	4892318	3.0
	2	380740	4892318	3.0
	3	380740	4892318	0.0
	4	380740	4892318	0.0
83	1	380832	4892404	3.3
	2	380832	4892404	3.3
	3	380832	4892404	0.0
	4	380832	4892404	0.0
84	1	380897	4892422	6.1
	2	380897	4892422	6.1
	3	380897	4892422	0.0
	4	380897	4892422	0.0
85	1	381152	4892703	12.2
	2	381152	4892703	12.3
	3	381152	4892703	0.0
	4	381152	4892703	0.0
86	1	381135	4892639	12.1
	2	381135	4892639	12.2
	3	381135	4892639	0.0
	4	381135	4892639	0.0
87	1	380962	4892451	6.7
	2	380962	4892451	6.7
	3	380962	4892451	0.0
	4	380962	4892451	0.0

88	1	381263	4892780	16.9
	2	381263	4892780	17.1
	3	381263	4892780	0.0
	4	381263	4892780	0.0
89	1	381293	4892826	19.6
	2	381293	4892826	19.8
	3	381293	4892826	0.0
	4	381293	4892826	0.0
90	1	387141	4886837	25.3
	2	387141	4886837	25.3
	3	387141	4886837	0.0
	4	387141	4886837	0.0
91	1	389073	4894040	15.2
	2	389073	4894040	15.1
	3	389073	4894040	15.2
	4	389073	4894040	15.2
92	1	390286	4892242	0.0
	2	390286	4892242	0.0
	3	390286	4892242	4.4
	4	390286	4892242	4.4
93	1	377707	4891923	0.0
	2	377707	4891923	0.0
	3	377707	4891923	0.0
	4	377707	4891923	0.0
94	1	383719	4891063	3.3
	2	383719	4891063	3.3
	3	383719	4891063	13.7
	4	383719	4891063	13.5
95	1	384766	4887862	0.0
	2	384766	4887862	0.0
	3	384766	4887862	12.1
	4	384766	4887862	12.0
96	1	384097	4891251	2.7
	2	384097	4891251	2.7
	3	384097	4891251	9.3
	4	384097	4891251	9.2
97	1	384836	4891642	0.0
	2	384836	4891642	2.4
	3	384836	4891642	2.4
	4	384836	4891642	0.0
98	1	384422	4888436	0.0
	2	384422	4888436	0.0
	3	384422	4888436	0.0
	4	384422	4888436	0.0
99	1	385226	4887204	0.0
	2	385226	4887204	0.0
	3	385226	4887204	27.3
	4	385226	4887204	27.2
100	1	387338	4889030	0.0
	2	387338	4889030	0.0
	3	387338	4889030	3.3

	4	387338	4889030	3.3
101	1	387654	4888988	0.0
	2	387654	4888988	0.0
	3	387654	4888988	0.0
	4	387654	4888988	0.0
102	1	384940	4890199	5.5
	2	384940	4890199	5.5
	3	384940	4890199	16.9
	4	384940	4890199	16.8
103	1	384734	4890627	2.6
	2	384734	4890627	2.6
	3	384734	4890627	16.8
	4	384734	4890627	16.7
104	1	386018	4891067	12.8
	2	386018	4891067	12.8
	3	386018	4891067	5.5
	4	386018	4891067	5.5
105	1	386153	4893492	0.0
	2	386153	4893492	0.0
	3	386153	4893492	0.0
	4	386153	4893492	0.0
106	1	387397	4891547	6.4
	2	387397	4891547	6.4
	3	387397	4891547	19.2
	4	387397	4891547	19.2
107	1	386570	4890193	11.6
	2	386570	4890193	11.6
	3	386570	4890193	6.1
	4	386570	4890193	6.1
108	1	387040	4889456	19.4
	2	387040	4889456	19.2
	3	387040	4889456	9.7
	4	387040	4889456	9.7
109	1	386909	4889801	23.4
	2	386909	4889801	23.3
	3	386909	4889801	2.9
	4	386909	4889801	2.9
110	1	389890	4890134	0.0
	2	389890	4890134	2.4
	3	389890	4890134	2.5
	4	389890	4890134	0.0
111	1	389265	4891158	20.0
	2	389265	4891158	20.0
	3	389265	4891158	2.7
	4	389265	4891158	2.7
112	1	389295	4891265	17.4
	2	389295	4891265	17.4
	3	389295	4891265	2.6
	4	389295	4891265	2.6
113	1	388592	4892232	6.0
	2	388592	4892232	6.0

	3	388592	4892232	7.8
	4	388592	4892232	7.9
114	1	388247	4892594	11.1
	2	388247	4892594	11.0
	3	388247	4892594	15.1
	4	388247	4892594	15.2
115	1	389394	4893419	0.0
	2	389394	4893419	6.6
	3	389394	4893419	19.5
	4	389394	4893419	12.8
116	1	389652	4889161	0.0
	2	389652	4889161	0.0
	3	389652	4889161	0.0
	4	389652	4889161	0.0
117	1	389727	4889423	0.0
	2	389727	4889423	0.0
	3	389727	4889423	12.9
	4	389727	4889423	13.0
118	1	387457	4888995	0.0
	2	387457	4888995	0.0
	3	387457	4888995	2.7
	4	387457	4888995	2.7
119	1	387419	4889039	0.0
	2	387419	4889039	0.0
	3	387419	4889039	2.9
	4	387419	4889039	2.9
120	1	388955	4888529	0.0
	2	388955	4888529	0.0
	3	388955	4888529	0.0
	4	388955	4888529	0.0
121	1	384294	4891308	3.6
	2	384294	4891308	3.6
	3	384294	4891308	0.0
	4	384294	4891308	0.0
122	1	385323	4892488	3.7
	2	385323	4892488	3.7
	3	385323	4892488	20.6
	4	385323	4892488	20.6
123	1	384752	4888727	0.0
	2	384752	4888727	0.0
	3	384752	4888727	0.0
	4	384752	4888727	0.0
124	1	383716	4889054	7.4
	2	383716	4889054	7.4
	3	383716	4889054	0.0
	4	383716	4889054	0.0
125	1	383732	4889686	2.6
	2	383732	4889686	2.6
	3	383732	4889686	3.4
	4	383732	4889686	3.4
126	1	385659	4889004	15.0

	2	385659	4889004	15.0
	3	385659	4889004	5.2
	4	385659	4889004	5.3
127	1	386970	4889544	10.6
	2	386970	4889544	10.6
	3	386970	4889544	0.0
	4	386970	4889544	0.0
128	1	385977	4889383	19.2
	2	385977	4889383	19.4
	3	385977	4889383	2.9
	4	385977	4889383	2.9
129	1	386651	4887584	9.7
	2	386651	4887584	9.7
	3	386651	4887584	0.0
	4	386651	4887584	0.0
130	1	384825	4887845	0.0
	2	384825	4887845	0.0
	3	384825	4887845	9.8
	4	384825	4887845	9.8
131	1	386294	4888138	6.7
	2	386294	4888138	6.7
	3	386294	4888138	0.0
	4	386294	4888138	0.0
132	1	388169	4887933	13.5
	2	388169	4887933	13.5
	3	388169	4887933	14.3
	4	388169	4887933	14.2
133	1	388264	4890996	7.0
	2	388264	4890996	7.1
	3	388264	4890996	4.3
	4	388264	4890996	4.3
134	1	387197	4891620	3.8
	2	387197	4891620	3.9
	3	387197	4891620	9.7
	4	387197	4891620	9.7
135	1	388393	4889849	5.1
	2	388393	4889849	5.1
	3	388393	4889849	22.9
	4	388393	4889849	22.8
136	1	389734	4889808	0.0
	2	389734	4889808	0.0
	3	389734	4889808	12.0
	4	389734	4889808	12.0
137	1	387029	4892265	0.0
	2	387029	4892265	1.3
	3	387029	4892265	7.1
	4	387029	4892265	5.6
138	1	388323	4892674	13.9
	2	388323	4892674	13.9
	3	388323	4892674	8.7
	4	388323	4892674	8.8

139	1	386965	4893214	5.1
	2	386965	4893214	5.2
	3	386965	4893214	3.4
	4	386965	4893214	3.4
140	1	387325	4893103	16.6
	2	387325	4893103	16.7
	3	387325	4893103	0.0
	4	387325	4893103	0.0
141	1	386223	4892696	0.0
	2	386223	4892696	0.0
	3	386223	4892696	24.8
	4	386223	4892696	24.9
142	1	387442	4893945	2.8
	2	387442	4893945	2.8
	3	387442	4893945	13.0
	4	387442	4893945	13.0
143	1	387848	4894481	7.3
	2	387848	4894481	7.4
	3	387848	4894481	4.4
	4	387848	4894481	4.4
144	1	386533	4889872	4.5
	2	386533	4889872	4.5
	3	386533	4889872	7.1
	4	386533	4889872	7.1
145	1	377941	4892808	0.0
	2	377941	4892808	0.0
	3	377941	4892808	0.0
	4	377941	4892808	0.0
146	1	377992	4892887	0.0
	2	377992	4892887	0.0
	3	377992	4892887	0.0
	4	377992	4892887	0.0
147	1	378044	4893051	0.0
	2	378044	4893051	0.0
	3	378044	4893051	0.0
	4	378044	4893051	0.0
148	1	378080	4893251	0.0
	2	378080	4893251	0.0
	3	378080	4893251	0.0
	4	378080	4893251	0.0
149	1	378543	4893216	0.0
	2	378543	4893216	0.0
	3	378543	4893216	0.0
	4	378543	4893216	0.0
150	1	378665	4893216	0.0
	2	378665	4893216	0.0
	3	378665	4893216	0.0
	4	378665	4893216	0.0
151	1	378912	4893088	0.0
	2	378912	4893088	0.0
	3	378912	4893088	0.0

	4	378912	4893088	0.0
152	1	379247	4893246	0.0
	2	379247	4893246	0.0
	3	379247	4893246	0.0
	4	379247	4893246	0.0
153	1	379772	4892302	0.0
	2	379772	4892302	0.0
	3	379772	4892302	0.0
	4	379772	4892302	0.0
154	1	379900	4892366	0.0
	2	379900	4892366	0.0
	3	379900	4892366	0.0
	4	379900	4892366	0.0
155	1	380135	4892496	0.0
	2	380135	4892496	0.0
	3	380135	4892496	0.0
	4	380135	4892496	0.0
156	1	379834	4892668	0.0
	2	379834	4892668	0.0
	3	379834	4892668	0.0
	4	379834	4892668	0.0
157	1	379406	4892018	0.0
	2	379406	4892018	0.0
	3	379406	4892018	0.0
	4	379406	4892018	0.0
158	1	378686	4891584	0.0
	2	378686	4891584	0.0
	3	378686	4891584	0.0
	4	378686	4891584	0.0
159	1	378472	4891374	0.0
	2	378472	4891374	0.0
	3	378472	4891374	0.0
	4	378472	4891374	0.0
160	1	378437	4891334	0.0
	2	378437	4891334	0.0
	3	378437	4891334	0.0
	4	378437	4891334	0.0
161	1	377374	4890574	0.0
	2	377374	4890574	0.0
	3	377374	4890574	0.0
	4	377374	4890574	0.0
162	1	375998	4890367	0.0
	2	375998	4890367	0.0
	3	375998	4890367	0.0
	4	375998	4890367	0.0
163	1	379758	4891620	4.4
	2	379758	4891620	4.4
	3	379758	4891620	0.0
	4	379758	4891620	0.0
164	1	380094	4891656	16.7
	2	380094	4891656	16.9

	3	380094	4891656	0.0
	4	380094	4891656	0.0
165	1	380128	4891679	13.8
	2	380128	4891679	14.0
	3	380128	4891679	0.0
	4	380128	4891679	0.0
166	1	381392	4892802	22.2
	2	381392	4892802	22.3
	3	381392	4892802	0.0
	4	381392	4892802	0.0
167	1	381145	4892564	13.1
	2	381145	4892564	13.1
	3	381145	4892564	0.0
	4	381145	4892564	0.0
168	1	380869	4892250	6.7
	2	380869	4892250	6.7
	3	380869	4892250	0.0
	4	380869	4892250	0.0
169	1	382386	4893380	5.7
	2	382386	4893380	5.7
	3	382386	4893380	0.0
	4	382386	4893380	0.0
170	1	382479	4893424	7.0
	2	382479	4893424	7.1
	3	382479	4893424	0.0
	4	382479	4893424	0.0
171	1	382620	4893500	12.4
	2	382620	4893500	12.5
	3	382620	4893500	0.0
	4	382620	4893500	0.0
172	1	383099	4893826	4.6
	2	383099	4893826	4.6
	3	383099	4893826	0.0
	4	383099	4893826	0.0
173	1	383866	4893969	12.0
	2	383866	4893969	12.1
	3	383866	4893969	0.0
	4	383866	4893969	0.0
174	1	383837	4893964	13.5
	2	383837	4893964	13.7
	3	383837	4893964	0.0
	4	383837	4893964	0.0
175	1	383919	4893980	0.0
	2	383919	4893980	7.2
	3	383919	4893980	7.2
	4	383919	4893980	0.0
176	1	384019	4894027	0.0
	2	384019	4894027	0.0
	3	384019	4894027	0.0
	4	384019	4894027	0.0
177	1	384116	4894113	0.0

	2	384116	4894113	0.0
	3	384116	4894113	0.0
	4	384116	4894113	0.0
178	1	384158	4894129	0.0
	2	384158	4894129	0.0
	3	384158	4894129	0.0
	4	384158	4894129	0.0
179	1	384240	4894173	0.0
	2	384240	4894173	0.0
	3	384240	4894173	0.0
	4	384240	4894173	0.0
180	1	384298	4894201	0.0
	2	384298	4894201	0.0
	3	384298	4894201	0.0
	4	384298	4894201	0.0
181	1	384362	4894265	0.0
	2	384362	4894265	0.0
	3	384362	4894265	0.0
	4	384362	4894265	0.0
182	1	384805	4894355	0.0
	2	384805	4894355	0.0
	3	384805	4894355	0.0
	4	384805	4894355	0.0
183	1	384860	4894394	0.0
	2	384860	4894394	0.0
	3	384860	4894394	0.0
	4	384860	4894394	0.0
184	1	384940	4894417	0.0
	2	384940	4894417	0.0
	3	384940	4894417	0.0
	4	384940	4894417	0.0
185	1	384883	4894372	0.0
	2	384883	4894372	0.0
	3	384883	4894372	0.0
	4	384883	4894372	0.0
186	1	384905	4894346	0.0
	2	384905	4894346	0.0
	3	384905	4894346	0.0
	4	384905	4894346	0.0
187	1	384869	4894314	0.0
	2	384869	4894314	0.0
	3	384869	4894314	0.0
	4	384869	4894314	0.0
188	1	384915	4894288	0.0
	2	384915	4894288	0.0
	3	384915	4894288	0.0
	4	384915	4894288	0.0
189	1	384831	4894334	0.0
	2	384831	4894334	0.0
	3	384831	4894334	0.0
	4	384831	4894334	0.0

190	1	384834	4894310	0.0
	2	384834	4894310	0.0
	3	384834	4894310	0.0
	4	384834	4894310	0.0
191	1	384845	4894270	0.0
	2	384845	4894270	0.0
	3	384845	4894270	0.0
	4	384845	4894270	0.0
192	1	384857	4894243	0.0
	2	384857	4894243	0.0
	3	384857	4894243	0.0
	4	384857	4894243	0.0
193	1	384866	4894197	0.0
	2	384866	4894197	0.0
	3	384866	4894197	0.0
	4	384866	4894197	0.0
194	1	384874	4894159	0.0
	2	384874	4894159	0.0
	3	384874	4894159	0.0
	4	384874	4894159	0.0
195	1	384782	4894263	0.0
	2	384782	4894263	0.0
	3	384782	4894263	0.0
	4	384782	4894263	0.0
196	1	384957	4894261	0.0
	2	384957	4894261	0.0
	3	384957	4894261	0.0
	4	384957	4894261	0.0
197	1	384965	4894214	0.0
	2	384965	4894214	0.0
	3	384965	4894214	0.0
	4	384965	4894214	0.0
198	1	384958	4894170	0.0
	2	384958	4894170	0.0
	3	384958	4894170	0.0
	4	384958	4894170	0.0
199	1	385098	4894276	0.0
	2	385098	4894276	0.0
	3	385098	4894276	0.0
	4	385098	4894276	0.0
200	1	385080	4894334	0.0
	2	385080	4894334	0.0
	3	385080	4894334	0.0
	4	385080	4894334	0.0
201	1	385061	4894367	0.0
	2	385061	4894367	0.0
	3	385061	4894367	0.0
	4	385061	4894367	0.0
202	1	385045	4894393	0.0
	2	385045	4894393	0.0
	3	385045	4894393	0.0

	4	385045	4894393	0.0
203	1	385042	4894432	0.0
	2	385042	4894432	0.0
	3	385042	4894432	0.0
	4	385042	4894432	0.0
204	1	385044	4894476	0.0
	2	385044	4894476	0.0
	3	385044	4894476	0.0
	4	385044	4894476	0.0
205	1	384975	4894412	0.0
	2	384975	4894412	0.0
	3	384975	4894412	0.0
	4	384975	4894412	0.0
206	1	384904	4894433	0.0
	2	384904	4894433	0.0
	3	384904	4894433	0.0
	4	384904	4894433	0.0
207	1	384934	4894473	0.0
	2	384934	4894473	0.0
	3	384934	4894473	0.0
	4	384934	4894473	0.0
208	1	384994	4894484	0.0
	2	384994	4894484	0.0
	3	384994	4894484	0.0
	4	384994	4894484	0.0
209	1	385053	4894526	0.0
	2	385053	4894526	0.0
	3	385053	4894526	0.0
	4	385053	4894526	0.0
210	1	385097	4894541	0.0
	2	385097	4894541	0.0
	3	385097	4894541	0.0
	4	385097	4894541	0.0
211	1	385160	4894574	0.0
	2	385160	4894574	0.0
	3	385160	4894574	0.0
	4	385160	4894574	0.0
212	1	385216	4894574	0.0
	2	385216	4894574	0.0
	3	385216	4894574	0.0
	4	385216	4894574	0.0
213	1	385226	4894530	2.5
	2	385226	4894530	2.5
	3	385226	4894530	0.0
	4	385226	4894530	0.0
214	1	385184	4894532	0.0
	2	385184	4894532	0.0
	3	385184	4894532	0.0
	4	385184	4894532	0.0
215	1	385158	4894531	0.0
	2	385158	4894531	0.0

	3	385158	4894531	0.0
	4	385158	4894531	0.0
216	1	385108	4894498	0.0
	2	385108	4894498	0.0
	3	385108	4894498	0.0
	4	385108	4894498	0.0
217	1	384968	4894327	0.0
	2	384968	4894327	0.0
	3	384968	4894327	0.0
	4	384968	4894327	0.0
218	1	384967	4894299	0.0
	2	384967	4894299	0.0
	3	384967	4894299	0.0
	4	384967	4894299	0.0
219	1	385006	4894310	0.0
	2	385006	4894310	0.0
	3	385006	4894310	0.0
	4	385006	4894310	0.0
220	1	384989	4894277	0.0
	2	384989	4894277	0.0
	3	384989	4894277	0.0
	4	384989	4894277	0.0
221	1	385052	4894261	0.0
	2	385052	4894261	0.0
	3	385052	4894261	0.0
	4	385052	4894261	0.0
222	1	384929	4894231	0.0
	2	384929	4894231	0.0
	3	384929	4894231	0.0
	4	384929	4894231	0.0
223	1	384763	4893997	0.0
	2	384763	4893997	0.0
	3	384763	4893997	0.0
	4	384763	4893997	0.0
224	1	384805	4893862	0.0
	2	384805	4893862	0.0
	3	384805	4893862	0.0
	4	384805	4893862	0.0
225	1	384912	4893751	0.0
	2	384912	4893751	0.0
	3	384912	4893751	11.0
	4	384912	4893751	11.0
226	1	385273	4894522	2.7
	2	385273	4894522	2.7
	3	385273	4894522	0.0
	4	385273	4894522	0.0
227	1	385294	4894513	2.8
	2	385294	4894513	2.8
	3	385294	4894513	0.0
	4	385294	4894513	0.0
228	1	385347	4894506	3.1

	2	385347	4894506	3.1
	3	385347	4894506	0.0
	4	385347	4894506	0.0
229	1	385341	4894578	3.0
	2	385341	4894578	3.0
	3	385341	4894578	0.0
	4	385341	4894578	0.0
230	1	385375	4894565	3.1
	2	385375	4894565	3.1
	3	385375	4894565	0.0
	4	385375	4894565	0.0
231	1	385461	4894556	3.6
	2	385461	4894556	3.7
	3	385461	4894556	0.0
	4	385461	4894556	0.0
232	1	385523	4894539	4.1
	2	385523	4894539	4.1
	3	385523	4894539	0.0
	4	385523	4894539	0.0
233	1	385402	4894409	3.6
	2	385402	4894409	3.6
	3	385402	4894409	0.0
	4	385402	4894409	0.0
234	1	385370	4894458	3.3
	2	385370	4894458	3.3
	3	385370	4894458	0.0
	4	385370	4894458	0.0
235	1	385400	4894471	3.4
	2	385400	4894471	3.4
	3	385400	4894471	0.0
	4	385400	4894471	0.0
236	1	385503	4894411	4.3
	2	385503	4894411	4.3
	3	385503	4894411	0.0
	4	385503	4894411	0.0
237	1	385483	4894450	4.0
	2	385483	4894450	4.0
	3	385483	4894450	0.0
	4	385483	4894450	0.0
238	1	386337	4894788	2.7
	2	386337	4894788	2.7
	3	386337	4894788	0.0
	4	386337	4894788	0.0
239	1	387070	4895476	0.0
	2	387070	4895476	0.0
	3	387070	4895476	0.0
	4	387070	4895476	0.0
240	1	385834	4896226	0.0
	2	385834	4896226	0.0
	3	385834	4896226	0.0
	4	385834	4896226	0.0

241	1	386192	4896481	0.0
	2	386192	4896481	0.0
	3	386192	4896481	0.0
	4	386192	4896481	0.0
242	1	386284	4896477	0.0
	2	386284	4896477	0.0
	3	386284	4896477	0.0
	4	386284	4896477	0.0
243	1	386368	4896680	0.0
	2	386368	4896680	0.0
	3	386368	4896680	0.0
	4	386368	4896680	0.0
244	1	385831	4896337	0.0
	2	385831	4896337	0.0
	3	385831	4896337	0.0
	4	385831	4896337	0.0
245	1	385792	4896288	0.0
	2	385792	4896288	0.0
	3	385792	4896288	0.0
	4	385792	4896288	0.0
246	1	384668	4895826	0.0
	2	384668	4895826	0.0
	3	384668	4895826	0.0
	4	384668	4895826	0.0
247	1	384800	4895815	0.0
	2	384800	4895815	0.0
	3	384800	4895815	0.0
	4	384800	4895815	0.0
248	1	384823	4895818	0.0
	2	384823	4895818	0.0
	3	384823	4895818	0.0
	4	384823	4895818	0.0
249	1	384857	4895823	0.0
	2	384857	4895823	0.0
	3	384857	4895823	0.0
	4	384857	4895823	0.0
250	1	384901	4895869	0.0
	2	384901	4895869	0.0
	3	384901	4895869	0.0
	4	384901	4895869	0.0
251	1	384951	4895931	0.0
	2	384951	4895931	0.0
	3	384951	4895931	0.0
	4	384951	4895931	0.0
252	1	384979	4895963	0.0
	2	384979	4895963	0.0
	3	384979	4895963	0.0
	4	384979	4895963	0.0
253	1	385021	4895993	0.0
	2	385021	4895993	0.0
	3	385021	4895993	0.0

	4	385021	4895993	0.0
254	1	385160	4896101	0.0
	2	385160	4896101	0.0
	3	385160	4896101	0.0
	4	385160	4896101	0.0
255	1	385188	4896116	0.0
	2	385188	4896116	0.0
	3	385188	4896116	0.0
	4	385188	4896116	0.0
256	1	385220	4896137	0.0
	2	385220	4896137	0.0
	3	385220	4896137	0.0
	4	385220	4896137	0.0
257	1	385518	4896143	0.0
	2	385518	4896143	0.0
	3	385518	4896143	0.0
	4	385518	4896143	0.0
258	1	387611	4895657	0.0
	2	387611	4895657	0.0
	3	387611	4895657	0.0
	4	387611	4895657	0.0
259	1	388166	4896034	0.0
	2	388166	4896034	0.0
	3	388166	4896034	0.0
	4	388166	4896034	0.0
260	1	388820	4896328	0.0
	2	388820	4896328	0.0
	3	388820	4896328	0.0
	4	388820	4896328	0.0
261	1	388921	4896395	0.0
	2	388921	4896395	0.0
	3	388921	4896395	0.0
	4	388921	4896395	0.0
262	1	389029	4896589	0.0
	2	389029	4896589	0.0
	3	389029	4896589	0.0
	4	389029	4896589	0.0
263	1	388322	4896688	0.0
	2	388322	4896688	0.0
	3	388322	4896688	0.0
	4	388322	4896688	0.0
264	1	388521	4896718	0.0
	2	388521	4896718	0.0
	3	388521	4896718	0.0
	4	388521	4896718	0.0
265	1	388545	4896736	0.0
	2	388545	4896736	0.0
	3	388545	4896736	0.0
	4	388545	4896736	0.0
266	1	388553	4896770	0.0
	2	388553	4896770	0.0

	3	388553	4896770	0.0
	4	388553	4896770	0.0
267	1	388568	4896799	0.0
	2	388568	4896799	0.0
	3	388568	4896799	0.0
	4	388568	4896799	0.0
268	1	388578	4896860	0.0
	2	388578	4896860	0.0
	3	388578	4896860	0.0
	4	388578	4896860	0.0
269	1	388625	4896897	0.0
	2	388625	4896897	0.0
	3	388625	4896897	0.0
	4	388625	4896897	0.0
270	1	388724	4897042	0.0
	2	388724	4897042	0.0
	3	388724	4897042	0.0
	4	388724	4897042	0.0
271	1	388765	4897200	0.0
	2	388765	4897200	0.0
	3	388765	4897200	0.0
	4	388765	4897200	0.0
272	1	388769	4897280	0.0
	2	388769	4897280	0.0
	3	388769	4897280	0.0
	4	388769	4897280	0.0
273	1	388770	4897321	0.0
	2	388770	4897321	0.0
	3	388770	4897321	0.0
	4	388770	4897321	0.0
274	1	388788	4897354	0.0
	2	388788	4897354	0.0
	3	388788	4897354	0.0
	4	388788	4897354	0.0
275	1	388780	4897384	0.0
	2	388780	4897384	0.0
	3	388780	4897384	0.0
	4	388780	4897384	0.0
276	1	388771	4897411	0.0
	2	388771	4897411	0.0
	3	388771	4897411	0.0
	4	388771	4897411	0.0
277	1	388766	4897455	0.0
	2	388766	4897455	0.0
	3	388766	4897455	0.0
	4	388766	4897455	0.0
278	1	388814	4897505	0.0
	2	388814	4897505	0.0
	3	388814	4897505	0.0
	4	388814	4897505	0.0
279	1	388832	4897701	0.0

	2	388832	4897701	0.0
	3	388832	4897701	0.0
	4	388832	4897701	0.0
280	1	389822	4897652	0.0
	2	389822	4897652	0.0
	3	389822	4897652	0.0
	4	389822	4897652	0.0
281	1	389894	4897484	0.0
	2	389894	4897484	0.0
	3	389894	4897484	0.0
	4	389894	4897484	0.0
282	1	389182	4896646	0.0
	2	389182	4896646	0.0
	3	389182	4896646	0.0
	4	389182	4896646	0.0
283	1	389430	4896650	0.0
	2	389430	4896650	0.0
	3	389430	4896650	0.0
	4	389430	4896650	0.0
284	1	390177	4897141	0.0
	2	390177	4897141	0.0
	3	390177	4897141	0.0
	4	390177	4897141	0.0
285	1	390685	4896455	0.0
	2	390685	4896455	0.0
	3	390685	4896455	0.0
	4	390685	4896455	0.0
286	1	390844	4896477	0.0
	2	390844	4896477	0.0
	3	390844	4896477	0.0
	4	390844	4896477	0.0
287	1	390969	4895972	0.0
	2	390969	4895972	0.0
	3	390969	4895972	0.0
	4	390969	4895972	0.0
288	1	391498	4895316	0.0
	2	391498	4895316	0.0
	3	391498	4895316	0.0
	4	391498	4895316	0.0
289	1	389875	4895604	0.0
	2	389875	4895604	0.0
	3	389875	4895604	0.0
	4	389875	4895604	0.0
290	1	389580	4895947	0.0
	2	389580	4895947	0.0
	3	389580	4895947	0.0
	4	389580	4895947	0.0
291	1	388534	4896158	0.0
	2	388534	4896158	0.0
	3	388534	4896158	0.0
	4	388534	4896158	0.0

292	1	389246	4896479	0.0
	2	389246	4896479	0.0
	3	389246	4896479	0.0
	4	389246	4896479	0.0
293	1	389299	4896635	0.0
	2	389299	4896635	0.0
	3	389299	4896635	0.0
	4	389299	4896635	0.0
294	1	389029	4896817	0.0
	2	389029	4896817	0.0
	3	389029	4896817	0.0
	4	389029	4896817	0.0
296	1	384648	4890991	13.5
	2	384648	4890991	13.5
	3	384648	4890991	0.0
	4	384648	4890991	0.0
297	1	384829	4890356	3.6
	2	384829	4890356	3.6
	3	384829	4890356	7.3
	4	384829	4890356	7.2
298	1	385581	4886674	0.0
	2	385581	4886674	16.0
	3	385581	4886674	27.3
	4	385581	4886674	11.0
299	1	382732	4886066	0.0
	2	382732	4886066	0.0
	3	382732	4886066	0.0
	4	382732	4886066	0.0
300	1	382805	4886129	0.0
	2	382805	4886129	0.0
	3	382805	4886129	0.0
	4	382805	4886129	0.0
301	1	382996	4886329	0.0
	2	382996	4886329	0.0
	3	382996	4886329	0.0
	4	382996	4886329	0.0
302	1	383129	4886435	0.0
	2	383129	4886435	0.0
	3	383129	4886435	0.0
	4	383129	4886435	0.0
303	1	383172	4886536	0.0
	2	383172	4886536	0.0
	3	383172	4886536	0.0
	4	383172	4886536	0.0
304	1	383196	4886704	0.0
	2	383196	4886704	0.0
	3	383196	4886704	0.0
	4	383196	4886704	0.0
305	1	383197	4886725	0.0
	2	383197	4886725	0.0
	3	383197	4886725	0.0

	4	383197	4886725	0.0
306	1	383190	4886760	0.0
	2	383190	4886760	0.0
	3	383190	4886760	0.0
	4	383190	4886760	0.0
307	1	383168	4886816	0.0
	2	383168	4886816	0.0
	3	383168	4886816	0.0
	4	383168	4886816	0.0
308	1	383171	4886843	0.0
	2	383171	4886843	0.0
	3	383171	4886843	0.0
	4	383171	4886843	0.0
309	1	383191	4886865	0.0
	2	383191	4886865	0.0
	3	383191	4886865	0.0
	4	383191	4886865	0.0
310	1	383227	4886973	8.8
	2	383227	4886973	8.8
	3	383227	4886973	0.0
	4	383227	4886973	0.0
311	1	383237	4887025	13.0
	2	383237	4887025	13.0
	3	383237	4887025	0.0
	4	383237	4887025	0.0
312	1	383327	4887099	15.3
	2	383327	4887099	15.3
	3	383327	4887099	0.0
	4	383327	4887099	0.0
313	1	383374	4887193	10.7
	2	383374	4887193	10.7
	3	383374	4887193	0.0
	4	383374	4887193	0.0
314	1	383387	4887222	10.8
	2	383387	4887222	10.8
	3	383387	4887222	0.0
	4	383387	4887222	0.0
315	1	383459	4887430	11.4
	2	383459	4887430	11.4
	3	383459	4887430	0.0
	4	383459	4887430	0.0
316	1	383674	4887672	31.0
	2	383674	4887672	31.1
	3	383674	4887672	0.0
	4	383674	4887672	0.0
317	1	383703	4887713	34.2
	2	383703	4887713	34.2
	3	383703	4887713	0.0
	4	383703	4887713	0.0
318	1	383733	4887746	25.5
	2	383733	4887746	33.2

	3	383733	4887746	7.8
	4	383733	4887746	0.0
319	1	383913	4888204	17.3
	2	383913	4888204	17.5
	3	383913	4888204	0.0
	4	383913	4888204	0.0
320	1	383902	4888356	14.5
	2	383902	4888356	14.7
	3	383902	4888356	0.0
	4	383902	4888356	0.0
321	1	384159	4888355	0.0
	2	384159	4888355	0.0
	3	384159	4888355	0.0
	4	384159	4888355	0.0
322	1	384133	4888259	0.0
	2	384133	4888259	1.5
	3	384133	4888259	1.7
	4	384133	4888259	0.0
323	1	385810	4887992	0.0
	2	385810	4887992	0.0
	3	385810	4887992	0.0
	4	385810	4887992	0.0
324	1	391696	4891566	0.0
	2	391696	4891566	0.0
	3	391696	4891566	2.8
	4	391696	4891566	2.8
325	1	391745	4891605	0.0
	2	391745	4891605	0.0
	3	391745	4891605	2.6
	4	391745	4891605	2.6
326	1	391801	4891696	0.0
	2	391801	4891696	0.0
	3	391801	4891696	0.0
	4	391801	4891696	0.0
327	1	391913	4891837	0.0
	2	391913	4891837	0.0
	3	391913	4891837	0.0
	4	391913	4891837	0.0
328	1	392156	4891869	0.0
	2	392156	4891869	0.0
	3	392156	4891869	0.0
	4	392156	4891869	0.0
329	1	392315	4891852	0.0
	2	392315	4891852	0.0
	3	392315	4891852	0.0
	4	392315	4891852	0.0
330	1	392368	4891991	0.0
	2	392368	4891991	0.0
	3	392368	4891991	0.0
	4	392368	4891991	0.0
331	1	391830	4892315	0.0

	2	391830	4892315	0.0
	3	391830	4892315	0.0
	4	391830	4892315	0.0
332	1	392930	4892672	0.0
	2	392930	4892672	0.0
	3	392930	4892672	0.0
	4	392930	4892672	0.0
333	1	392883	4892623	0.0
	2	392883	4892623	0.0
	3	392883	4892623	0.0
	4	392883	4892623	0.0
334	1	392830	4892561	0.0
	2	392830	4892561	0.0
	3	392830	4892561	0.0
	4	392830	4892561	0.0
335	1	387848	4885983	0.0
	2	387848	4885983	0.0
	3	387848	4885983	0.0
	4	387848	4885983	0.0
336	1	387895	4886008	0.0
	2	387895	4886008	0.0
	3	387895	4886008	0.0
	4	387895	4886008	0.0
338	1	387490	4885895	0.0
	2	387490	4885895	0.0
	3	387490	4885895	0.0
	4	387490	4885895	0.0
339	1	388108	4886134	0.0
	2	388108	4886134	0.0
	3	388108	4886134	0.0
	4	388108	4886134	0.0
340	1	389659	4887396	0.0
	2	389659	4887396	0.0
	3	389659	4887396	10.1
	4	389659	4887396	10.1
341	1	389807	4887631	0.0
	2	389807	4887631	0.0
	3	389807	4887631	8.9
	4	389807	4887631	8.9
342	1	390434	4887703	0.0
	2	390434	4887703	0.0
	3	390434	4887703	0.0
	4	390434	4887703	0.0
343	1	390892	4887863	0.0
	2	390892	4887863	0.0
	3	390892	4887863	0.0
	4	390892	4887863	0.0
344	1	390927	4887785	0.0
	2	390927	4887785	0.0
	3	390927	4887785	0.0
	4	390927	4887785	0.0

345	1	390899	4887747	0.0
	2	390899	4887747	0.0
	3	390899	4887747	0.0
	4	390899	4887747	0.0
346	1	391186	4887791	0.0
	2	391186	4887791	0.0
	3	391186	4887791	0.0
	4	391186	4887791	0.0
347	1	391229	4887792	0.0
	2	391229	4887792	0.0
	3	391229	4887792	0.0
	4	391229	4887792	0.0
348	1	391255	4887791	0.0
	2	391255	4887791	0.0
	3	391255	4887791	0.0
	4	391255	4887791	0.0
349	1	391299	4887794	0.0
	2	391299	4887794	0.0
	3	391299	4887794	0.0
	4	391299	4887794	0.0
350	1	391343	4887785	0.0
	2	391343	4887785	0.0
	3	391343	4887785	0.0
	4	391343	4887785	0.0
351	1	391376	4887786	0.0
	2	391376	4887786	0.0
	3	391376	4887786	0.0
	4	391376	4887786	0.0
352	1	391401	4887809	0.0
	2	391401	4887809	0.0
	3	391401	4887809	0.0
	4	391401	4887809	0.0
353	1	391411	4887800	0.0
	2	391411	4887800	0.0
	3	391411	4887800	0.0
	4	391411	4887800	0.0
354	1	391466	4887892	0.0
	2	391466	4887892	0.0
	3	391466	4887892	0.0
	4	391466	4887892	0.0
355	1	391498	4887854	0.0
	2	391498	4887854	0.0
	3	391498	4887854	0.0
	4	391498	4887854	0.0
356	1	391554	4887859	0.0
	2	391554	4887859	0.0
	3	391554	4887859	0.0
	4	391554	4887859	0.0
357	1	391568	4887884	0.0
	2	391568	4887884	0.0
	3	391568	4887884	0.0

	4	391568	4887884	0.0
358	1	391633	4887876	0.0
	2	391633	4887876	0.0
	3	391633	4887876	0.0
	4	391633	4887876	0.0
359	1	391655	4887913	0.0
	2	391655	4887913	0.0
	3	391655	4887913	0.0
	4	391655	4887913	0.0
360	1	391674	4887967	0.0
	2	391674	4887967	0.0
	3	391674	4887967	0.0
	4	391674	4887967	0.0
361	1	390618	4888037	0.0
	2	390618	4888037	0.0
	3	390618	4888037	0.0
	4	390618	4888037	0.0
362	1	390600	4888027	0.0
	2	390600	4888027	0.0
	3	390600	4888027	0.0
	4	390600	4888027	0.0
363	1	387773	4885952	0.0
	2	387773	4885952	0.0
	3	387773	4885952	0.0
	4	387773	4885952	0.0
364	1	389484	4888888	0.0
	2	389484	4888888	0.0
	3	389484	4888888	0.0
	4	389484	4888888	0.0
365	1	390083	4889597	0.0
	2	390083	4889597	0.0
	3	390083	4889597	4.3
	4	390083	4889597	4.3
366	1	390097	4889606	0.0
	2	390097	4889606	0.0
	3	390097	4889606	4.1
	4	390097	4889606	4.1
367	1	390121	4889626	0.0
	2	390121	4889626	0.0
	3	390121	4889626	4.0
	4	390121	4889626	4.0
368	1	388270	4887890	19.1
	2	388270	4887890	19.2
	3	388270	4887890	8.8
	4	388270	4887890	8.8
369	1	391431	4890841	0.0
	2	391431	4890841	0.0
	3	391431	4890841	15.8
	4	391431	4890841	15.9
370	1	391397	4890822	0.0
	2	391397	4890822	0.0

	3	391397	4890822	16.7
	4	391397	4890822	16.7
371	1	392181	4891882	0.0
	2	392181	4891882	0.0
	3	392181	4891882	0.0
	4	392181	4891882	0.0
372	1	392407	4892045	0.0
	2	392407	4892045	0.0
	3	392407	4892045	0.0
	4	392407	4892045	0.0
373	1	392463	4892067	0.0
	2	392463	4892067	0.0
	3	392463	4892067	0.0
	4	392463	4892067	0.0
374	1	392270	4891854	0.0
	2	392270	4891854	0.0
	3	392270	4891854	0.0
	4	392270	4891854	0.0
375	1	391871	4892285	0.0
	2	391871	4892285	0.0
	3	391871	4892285	0.0
	4	391871	4892285	0.0
376	1	392591	4892154	0.0
	2	392591	4892154	0.0
	3	392591	4892154	0.0
	4	392591	4892154	0.0
377	1	392565	4892182	0.0
	2	392565	4892182	0.0
	3	392565	4892182	0.0
	4	392565	4892182	0.0
378	1	393188	4893131	0.0
	2	393188	4893131	0.0
	3	393188	4893131	0.0
	4	393188	4893131	0.0
379	1	392038	4892779	0.0
	2	392038	4892779	0.0
	3	392038	4892779	0.0
	4	392038	4892779	0.0
380	1	392266	4892744	0.0
	2	392266	4892744	0.0
	3	392266	4892744	0.0
	4	392266	4892744	0.0
381	1	392576	4892955	0.0
	2	392576	4892955	0.0
	3	392576	4892955	0.0
	4	392576	4892955	0.0
382	1	391947	4892746	0.0
	2	391947	4892746	0.0
	3	391947	4892746	0.0
	4	391947	4892746	0.0
383	1	391388	4892864	0.0

	2	391388	4892864	0.0
	3	391388	4892864	0.0
	4	391388	4892864	0.0
384	1	391456	4893054	0.0
	2	391456	4893054	0.0
	3	391456	4893054	0.0
	4	391456	4893054	0.0
385	1	391321	4893366	0.0
	2	391321	4893366	0.0
	3	391321	4893366	0.0
	4	391321	4893366	0.0
386	1	391093	4893666	0.0
	2	391093	4893666	0.0
	3	391093	4893666	3.0
	4	391093	4893666	3.0
387	1	390976	4893956	0.0
	2	390976	4893956	0.0
	3	390976	4893956	3.6
	4	390976	4893956	3.6
388	1	390916	4894090	0.0
	2	390916	4894090	0.0
	3	390916	4894090	4.2
	4	390916	4894090	4.2
389	1	390367	4893833	0.0
	2	390367	4893833	0.0
	3	390367	4893833	14.4
	4	390367	4893833	14.5
390	1	390734	4893965	0.0
	2	390734	4893965	0.0
	3	390734	4893965	9.6
	4	390734	4893965	9.6
391	1	390566	4894739	0.0
	2	390566	4894739	0.0
	3	390566	4894739	0.0
	4	390566	4894739	0.0
392	1	389526	4893166	0.0
	2	389526	4893166	2.5
	3	389526	4893166	18.7
	4	389526	4893166	16.1
393	1	390134	4892386	0.0
	2	390134	4892386	0.0
	3	390134	4892386	10.8
	4	390134	4892386	10.7
394	1	387011	4894740	0.0
	2	387011	4894740	0.0
	3	387011	4894740	0.0
	4	387011	4894740	0.0
395	1	386846	4894869	0.0
	2	386846	4894869	0.0
	3	386846	4894869	0.0
	4	386846	4894869	0.0

396	1	386761	4894871	0.0
	2	386761	4894871	0.0
	3	386761	4894871	0.0
	4	386761	4894871	0.0
397	1	386846	4894799	0.0
	2	386846	4894799	0.0
	3	386846	4894799	0.0
	4	386846	4894799	0.0
398	1	386807	4894905	0.0
	2	386807	4894905	0.0
	3	386807	4894905	0.0
	4	386807	4894905	0.0
399	1	386786	4894952	0.0
	2	386786	4894952	0.0
	3	386786	4894952	0.0
	4	386786	4894952	0.0
400	1	386576	4894943	0.0
	2	386576	4894943	0.0
	3	386576	4894943	0.0
	4	386576	4894943	0.0
401	1	387217	4895269	0.0
	2	387217	4895269	0.0
	3	387217	4895269	0.0
	4	387217	4895269	0.0
402	1	386142	4894686	5.3
	2	386142	4894686	5.3
	3	386142	4894686	0.0
	4	386142	4894686	0.0
403	1	387565	4896572	0.0
	2	387565	4896572	0.0
	3	387565	4896572	0.0
	4	387565	4896572	0.0
404	1	387950	4896702	0.0
	2	387950	4896702	0.0
	3	387950	4896702	0.0
	4	387950	4896702	0.0
405	1	388578	4896829	0.0
	2	388578	4896829	0.0
	3	388578	4896829	0.0
	4	388578	4896829	0.0
406	1	389218	4896673	0.0
	2	389218	4896673	0.0
	3	389218	4896673	0.0
	4	389218	4896673	0.0
407	1	389250	4896696	0.0
	2	389250	4896696	0.0
	3	389250	4896696	0.0
	4	389250	4896696	0.0
408	1	388701	4897108	0.0
	2	388701	4897108	0.0
	3	388701	4897108	0.0

	4	388701	4897108	0.0
409	1	388725	4897175	0.0
	2	388725	4897175	0.0
	3	388725	4897175	0.0
	4	388725	4897175	0.0
410	1	388694	4897132	0.0
	2	388694	4897132	0.0
	3	388694	4897132	0.0
	4	388694	4897132	0.0
411	1	388786	4897480	0.0
	2	388786	4897480	0.0
	3	388786	4897480	0.0
	4	388786	4897480	0.0
412	1	388842	4897544	0.0
	2	388842	4897544	0.0
	3	388842	4897544	0.0
	4	388842	4897544	0.0
413	1	388840	4897661	0.0
	2	388840	4897661	0.0
	3	388840	4897661	0.0
	4	388840	4897661	0.0
414	1	388855	4897587	0.0
	2	388855	4897587	0.0
	3	388855	4897587	0.0
	4	388855	4897587	0.0
415	1	388815	4897743	0.0
	2	388815	4897743	0.0
	3	388815	4897743	0.0
	4	388815	4897743	0.0
416	1	388788	4897786	0.0
	2	388788	4897786	0.0
	3	388788	4897786	0.0
	4	388788	4897786	0.0
417	1	388466	4898017	0.0
	2	388466	4898017	0.0
	3	388466	4898017	0.0
	4	388466	4898017	0.0
418	1	388426	4898036	0.0
	2	388426	4898036	0.0
	3	388426	4898036	0.0
	4	388426	4898036	0.0
419	1	388342	4897957	0.0
	2	388342	4897957	0.0
	3	388342	4897957	0.0
	4	388342	4897957	0.0
420	1	388262	4897953	0.0
	2	388262	4897953	0.0
	3	388262	4897953	0.0
	4	388262	4897953	0.0
421	1	386417	4894873	0.0
	2	386417	4894873	0.0

	3	386417	4894873	0.0
	4	386417	4894873	0.0
422	1	386441	4894873	0.0
	2	386441	4894873	0.0
	3	386441	4894873	0.0
	4	386441	4894873	0.0
423	1	386468	4894888	0.0
	2	386468	4894888	0.0
	3	386468	4894888	0.0
	4	386468	4894888	0.0
424	1	386577	4894640	0.0
	2	386577	4894640	0.0
	3	386577	4894640	0.0
	4	386577	4894640	0.0
425	1	386301	4894646	11.0
	2	386301	4894646	11.1
	3	386301	4894646	0.0
	4	386301	4894646	0.0
426	1	386355	4894685	7.9
	2	386355	4894685	8.0
	3	386355	4894685	0.0
	4	386355	4894685	0.0
427	1	386411	4894661	6.6
	2	386411	4894661	6.7
	3	386411	4894661	0.0
	4	386411	4894661	0.0
428	1	386465	4895014	0.0
	2	386465	4895014	0.0
	3	386465	4895014	0.0
	4	386465	4895014	0.0
429	1	385995	4894866	0.0
	2	385995	4894866	0.0
	3	385995	4894866	0.0
	4	385995	4894866	0.0
430	1	385766	4894485	7.5
	2	385766	4894485	7.5
	3	385766	4894485	0.0
	4	385766	4894485	0.0
431	1	385541	4894440	4.5
	2	385541	4894440	4.5
	3	385541	4894440	0.0
	4	385541	4894440	0.0
432	1	385452	4894495	3.7
	2	385452	4894495	3.7
	3	385452	4894495	0.0
	4	385452	4894495	0.0
433	1	385457	4894483	3.7
	2	385457	4894483	3.8
	3	385457	4894483	0.0
	4	385457	4894483	0.0
434	1	385468	4894459	3.9

	2	385468	4894459	3.9
	3	385468	4894459	0.0
	4	385468	4894459	0.0
435	1	385909	4894739	6.9
	2	385909	4894739	7.0
	3	385909	4894739	0.0
	4	385909	4894739	0.0
436	1	385570	4894280	5.4
	2	385570	4894280	5.4
	3	385570	4894280	0.0
	4	385570	4894280	0.0
437	1	386079	4891342	6.6
	2	386079	4891342	6.6
	3	386079	4891342	10.1
	4	386079	4891342	10.0
438	1	385242	4892212	4.3
	2	385242	4892212	4.3
	3	385242	4892212	19.2
	4	385242	4892212	19.3
439	1	384851	4893592	2.9
	2	384851	4893592	2.9
	3	384851	4893592	12.3
	4	384851	4893592	12.2
440	1	384921	4893798	0.0
	2	384921	4893798	0.0
	3	384921	4893798	6.5
	4	384921	4893798	6.4
441	1	384763	4894039	0.0
	2	384763	4894039	0.0
	3	384763	4894039	0.0
	4	384763	4894039	0.0
442	1	384809	4894072	0.0
	2	384809	4894072	0.0
	3	384809	4894072	0.0
	4	384809	4894072	0.0
443	1	384819	4894039	0.0
	2	384819	4894039	0.0
	3	384819	4894039	0.0
	4	384819	4894039	0.0
444	1	384846	4894090	0.0
	2	384846	4894090	0.0
	3	384846	4894090	0.0
	4	384846	4894090	0.0
445	1	384818	4894153	0.0
	2	384818	4894153	0.0
	3	384818	4894153	0.0
	4	384818	4894153	0.0
446	1	384776	4894187	0.0
	2	384776	4894187	0.0
	3	384776	4894187	0.0
	4	384776	4894187	0.0

447	1	384930	4894203	0.0
	2	384930	4894203	0.0
	3	384930	4894203	0.0
	4	384930	4894203	0.0
448	1	384910	4894193	0.0
	2	384910	4894193	0.0
	3	384910	4894193	0.0
	4	384910	4894193	0.0
449	1	384940	4894152	0.0
	2	384940	4894152	0.0
	3	384940	4894152	0.0
	4	384940	4894152	0.0
450	1	385037	4894329	0.0
	2	385037	4894329	0.0
	3	385037	4894329	0.0
	4	385037	4894329	0.0
451	1	384715	4894239	0.0
	2	384715	4894239	0.0
	3	384715	4894239	0.0
	4	384715	4894239	0.0
452	1	384785	4894228	0.0
	2	384785	4894228	0.0
	3	384785	4894228	0.0
	4	384785	4894228	0.0
453	1	384787	4894294	0.0
	2	384787	4894294	0.0
	3	384787	4894294	0.0
	4	384787	4894294	0.0
454	1	384793	4894305	0.0
	2	384793	4894305	0.0
	3	384793	4894305	0.0
	4	384793	4894305	0.0
455	1	384800	4894309	0.0
	2	384800	4894309	0.0
	3	384800	4894309	0.0
	4	384800	4894309	0.0
456	1	384810	4894319	0.0
	2	384810	4894319	0.0
	3	384810	4894319	0.0
	4	384810	4894319	0.0
457	1	384759	4894318	0.0
	2	384759	4894318	0.0
	3	384759	4894318	0.0
	4	384759	4894318	0.0
458	1	384774	4894325	0.0
	2	384774	4894325	0.0
	3	384774	4894325	0.0
	4	384774	4894325	0.0
459	1	384745	4894346	0.0
	2	384745	4894346	0.0
	3	384745	4894346	0.0

	4	384745	4894346	0.0
460	1	384741	4894365	0.0
	2	384741	4894365	0.0
	3	384741	4894365	0.0
	4	384741	4894365	0.0
461	1	384729	4894402	0.0
	2	384729	4894402	0.0
	3	384729	4894402	0.0
	4	384729	4894402	0.0
462	1	384690	4894392	0.0
	2	384690	4894392	0.0
	3	384690	4894392	0.0
	4	384690	4894392	0.0
463	1	384635	4894379	0.0
	2	384635	4894379	0.0
	3	384635	4894379	0.0
	4	384635	4894379	0.0
464	1	384599	4894362	0.0
	2	384599	4894362	0.0
	3	384599	4894362	0.0
	4	384599	4894362	0.0
465	1	384688	4894358	0.0
	2	384688	4894358	0.0
	3	384688	4894358	0.0
	4	384688	4894358	0.0
466	1	384965	4894357	0.0
	2	384965	4894357	0.0
	3	384965	4894357	0.0
	4	384965	4894357	0.0
467	1	384955	4894365	0.0
	2	384955	4894365	0.0
	3	384955	4894365	0.0
	4	384955	4894365	0.0
468	1	384952	4894381	0.0
	2	384952	4894381	0.0
	3	384952	4894381	0.0
	4	384952	4894381	0.0
469	1	384917	4894373	0.0
	2	384917	4894373	0.0
	3	384917	4894373	0.0
	4	384917	4894373	0.0
470	1	384927	4894347	0.0
	2	384927	4894347	0.0
	3	384927	4894347	0.0
	4	384927	4894347	0.0
471	1	384895	4894368	0.0
	2	384895	4894368	0.0
	3	384895	4894368	0.0
	4	384895	4894368	0.0
472	1	385144	4894397	0.0
	2	385144	4894397	0.0

	3	385144	4894397	0.0
	4	385144	4894397	0.0
473	1	385162	4894308	2.6
	2	385162	4894308	2.6
	3	385162	4894308	0.0
	4	385162	4894308	0.0
474	1	385143	4894272	0.0
	2	385143	4894272	0.0
	3	385143	4894272	0.0
	4	385143	4894272	0.0
475	1	385124	4894445	0.0
	2	385124	4894445	0.0
	3	385124	4894445	0.0
	4	385124	4894445	0.0
476	1	385077	4894485	0.0
	2	385077	4894485	0.0
	3	385077	4894485	0.0
	4	385077	4894485	0.0
477	1	385216	4894443	2.6
	2	385216	4894443	2.6
	3	385216	4894443	0.0
	4	385216	4894443	0.0
478	1	385208	4894462	2.5
	2	385208	4894462	2.6
	3	385208	4894462	0.0
	4	385208	4894462	0.0
479	1	385246	4894448	2.7
	2	385246	4894448	2.7
	3	385246	4894448	0.0
	4	385246	4894448	0.0
480	1	385273	4894497	2.7
	2	385273	4894497	2.7
	3	385273	4894497	0.0
	4	385273	4894497	0.0
481	1	385256	4894511	2.6
	2	385256	4894511	2.7
	3	385256	4894511	0.0
	4	385256	4894511	0.0
482	1	385297	4894390	3.0
	2	385297	4894390	3.0
	3	385297	4894390	0.0
	4	385297	4894390	0.0
483	1	385340	4894400	3.2
	2	385340	4894400	3.2
	3	385340	4894400	0.0
	4	385340	4894400	0.0
484	1	385334	4894474	3.0
	2	385334	4894474	3.1
	3	385334	4894474	0.0
	4	385334	4894474	0.0
485	1	385326	4894498	3.0

	2	385326	4894498	3.0
	3	385326	4894498	0.0
	4	385326	4894498	0.0
486	1	384959	4894474	0.0
	2	384959	4894474	0.0
	3	384959	4894474	0.0
	4	384959	4894474	0.0
487	1	385009	4894419	0.0
	2	385009	4894419	0.0
	3	385009	4894419	0.0
	4	385009	4894419	0.0
488	1	384980	4894435	0.0
	2	384980	4894435	0.0
	3	384980	4894435	0.0
	4	384980	4894435	0.0
489	1	384460	4894303	0.0
	2	384460	4894303	0.0
	3	384460	4894303	0.0
	4	384460	4894303	0.0
490	1	384526	4894323	0.0
	2	384526	4894323	0.0
	3	384526	4894323	0.0
	4	384526	4894323	0.0
491	1	384494	4894300	0.0
	2	384494	4894300	0.0
	3	384494	4894300	0.0
	4	384494	4894300	0.0
492	1	384511	4894268	0.0
	2	384511	4894268	0.0
	3	384511	4894268	0.0
	4	384511	4894268	0.0
493	1	384464	4894270	0.0
	2	384464	4894270	0.0
	3	384464	4894270	0.0
	4	384464	4894270	0.0
494	1	384449	4894218	0.0
	2	384449	4894218	0.0
	3	384449	4894218	0.0
	4	384449	4894218	0.0
495	1	384412	4894199	0.0
	2	384412	4894199	0.0
	3	384412	4894199	0.0
	4	384412	4894199	0.0
496	1	384455	4894185	0.0
	2	384455	4894185	0.0
	3	384455	4894185	0.0
	4	384455	4894185	0.0
497	1	384567	4894005	0.0
	2	384567	4894005	0.0
	3	384567	4894005	0.0
	4	384567	4894005	0.0

498	1	384381	4894102	0.0
	2	384381	4894102	0.0
	3	384381	4894102	0.0
	4	384381	4894102	0.0
499	1	384356	4894181	0.0
	2	384356	4894181	0.0
	3	384356	4894181	0.0
	4	384356	4894181	0.0
500	1	385213	4894363	2.7
	2	385213	4894363	2.7
	3	385213	4894363	0.0
	4	385213	4894363	0.0
501	1	385153	4894357	0.0
	2	385153	4894357	0.0
	3	385153	4894357	0.0
	4	385153	4894357	0.0
502	1	383877	4893999	8.8
	2	383877	4893999	8.9
	3	383877	4893999	0.0
	4	383877	4893999	0.0
503	1	383797	4893950	14.1
	2	383797	4893950	14.3
	3	383797	4893950	0.0
	4	383797	4893950	0.0
504	1	383701	4893824	15.5
	2	383701	4893824	15.7
	3	383701	4893824	0.0
	4	383701	4893824	0.0
505	1	383398	4894173	3.9
	2	383398	4894173	4.0
	3	383398	4894173	0.0
	4	383398	4894173	0.0
506	1	383223	4894169	0.0
	2	383223	4894169	0.0
	3	383223	4894169	0.0
	4	383223	4894169	0.0
507	1	383063	4894068	0.0
	2	383063	4894068	0.0
	3	383063	4894068	0.0
	4	383063	4894068	0.0
508	1	383349	4894227	0.0
	2	383349	4894227	0.0
	3	383349	4894227	0.0
	4	383349	4894227	0.0
509	1	382833	4893924	0.0
	2	382833	4893924	0.0
	3	382833	4893924	0.0
	4	382833	4893924	0.0
510	1	382903	4893987	0.0
	2	382903	4893987	0.0
	3	382903	4893987	0.0

	4	382903	4893987	0.0
511	1	383148	4893040	N/A ⁹
	2	383148	4893040	N/A
	3	383148	4893040	N/A
	4	383148	4893040	N/A
512	1	384220	4888396	0.0
	2	384220	4888396	0.0
	3	384220	4888396	0.0
	4	384220	4888396	0.0
513	1	384128	4888342	0.0
	2	384128	4888342	0.0
	3	384128	4888342	0.0
	4	384128	4888342	0.0
514	1	383830	4888027	23.2
	2	383830	4888027	23.3
	3	383830	4888027	0.0
	4	383830	4888027	0.0
515	1	383914	4888296	19.2
	2	383914	4888296	19.4
	3	383914	4888296	0.0
	4	383914	4888296	0.0
516	1	383433	4887276	12.2
	2	383433	4887276	12.2
	3	383433	4887276	0.0
	4	383433	4887276	0.0
517	1	383383	4887209	10.8
	2	383383	4887209	10.8
	3	383383	4887209	0.0
	4	383383	4887209	0.0
518	1	383398	4887270	11.0
	2	383398	4887270	11.0
	3	383398	4887270	0.0
	4	383398	4887270	0.0
519	1	383295	4887087	13.5
	2	383295	4887087	13.5
	3	383295	4887087	0.0
	4	383295	4887087	0.0
520	1	383270	4887068	14.0
	2	383270	4887068	13.9
	3	383270	4887068	0.0
	4	383270	4887068	0.0
521	1	383200	4886911	2.0
	2	383200	4886911	1.9
	3	383200	4886911	0.0
	4	383200	4886911	0.0
522	1	383147	4886840	0.0
	2	383147	4886840	0.0
	3	383147	4886840	0.0
	4	383147	4886840	0.0

⁹ R511 is the maintenance shed for the Corus radio towers and is therefore not considered in the analysis.

523	1	383149	4886863	0.0
	2	383149	4886863	0.0
	3	383149	4886863	0.0
	4	383149	4886863	0.0
524	1	383183	4886788	0.0
	2	383183	4886788	0.0
	3	383183	4886788	0.0
	4	383183	4886788	0.0
525	1	383196	4886678	0.0
	2	383196	4886678	0.0
	3	383196	4886678	0.0
	4	383196	4886678	0.0
526	1	383180	4886622	0.0
	2	383180	4886622	0.0
	3	383180	4886622	0.0
	4	383180	4886622	0.0
527	1	383154	4886507	0.0
	2	383154	4886507	0.0
	3	383154	4886507	0.0
	4	383154	4886507	0.0
528	1	383171	4886580	0.0
	2	383171	4886580	0.0
	3	383171	4886580	0.0
	4	383171	4886580	0.0
529	1	383102	4886424	0.0
	2	383102	4886424	0.0
	3	383102	4886424	0.0
	4	383102	4886424	0.0
530	1	383046	4886393	0.0
	2	383046	4886393	0.0
	3	383046	4886393	0.0
	4	383046	4886393	0.0
531	1	383018	4886343	0.0
	2	383018	4886343	0.0
	3	383018	4886343	0.0
	4	383018	4886343	0.0
532	1	382890	4886270	0.0
	2	382890	4886270	0.0
	3	382890	4886270	0.0
	4	382890	4886270	0.0
533	1	382722	4886045	0.0
	2	382722	4886045	0.0
	3	382722	4886045	0.0
	4	382722	4886045	0.0
534	1	383744	4888645	0.9
	2	383744	4888645	0.9
	3	383744	4888645	0.0
	4	383744	4888645	0.0
535	1	385878	4887088	0.0
	2	385878	4887088	0.0
	3	385878	4887088	3.1

	4	385878	4887088	3.1
536	1	382438	4893414	6.3
	2	382438	4893414	6.4
	3	382438	4893414	0.0
	4	382438	4893414	0.0
537	1	382442	4893361	6.5
	2	382442	4893361	6.5
	3	382442	4893361	0.0
	4	382442	4893361	0.0
538	1	382574	4893581	12.5
	2	382574	4893581	12.7
	3	382574	4893581	0.0
	4	382574	4893581	0.0
539	1	382470	4893532	6.8
	2	382470	4893532	6.9
	3	382470	4893532	0.0
	4	382470	4893532	0.0
540	1	382432	4893538	6.1
	2	382432	4893538	6.1
	3	382432	4893538	0.0
	4	382432	4893538	0.0
541	1	382275	4893427	7.9
	2	382275	4893427	8.0
	3	382275	4893427	0.0
	4	382275	4893427	0.0
542	1	381081	4892466	12.9
	2	381081	4892466	12.9
	3	381081	4892466	0.0
	4	381081	4892466	0.0
543	1	381057	4892540	11.3
	2	381057	4892540	11.3
	3	381057	4892540	0.0
	4	381057	4892540	0.0
544	1	381011	4892518	10.6
	2	381011	4892518	10.6
	3	381011	4892518	0.0
	4	381011	4892518	0.0
545	1	380986	4892483	6.8
	2	380986	4892483	6.8
	3	380986	4892483	0.0
	4	380986	4892483	0.0
546	1	380871	4892420	3.4
	2	380871	4892420	3.4
	3	380871	4892420	0.0
	4	380871	4892420	0.0
547	1	380500	4892063	0.0
	2	380500	4892063	0.0
	3	380500	4892063	0.0
	4	380500	4892063	0.0
548	1	380549	4891977	0.0
	2	380549	4891977	0.0

	3	380549	4891977	0.0
	4	380549	4891977	0.0
549	1	380374	4891937	4.8
	2	380374	4891937	4.8
	3	380374	4891937	0.0
	4	380374	4891937	0.0
550	1	380136	4891817	4.0
	2	380136	4891817	4.1
	3	380136	4891817	0.0
	4	380136	4891817	0.0
551	1	380052	4891746	12.5
	2	380052	4891746	12.6
	3	380052	4891746	0.0
	4	380052	4891746	0.0
552	1	380096	4891785	3.6
	2	380096	4891785	7.3
	3	380096	4891785	3.7
	4	380096	4891785	0.0
553	1	380165	4891737	4.2
	2	380165	4891737	5.8
	3	380165	4891737	1.7
	4	380165	4891737	0.0
554	1	379983	4891657	12.0
	2	379983	4891657	12.1
	3	379983	4891657	0.0
	4	379983	4891657	0.0
555	1	379925	4891644	9.7
	2	379925	4891644	9.7
	3	379925	4891644	0.0
	4	379925	4891644	0.0
556	1	379579	4892179	0.0
	2	379579	4892179	0.0
	3	379579	4892179	0.0
	4	379579	4892179	0.0
560	1	379722	4892358	0.0
	2	379722	4892358	0.0
	3	379722	4892358	0.0
	4	379722	4892358	0.0
563	1	379787	4892387	0.0
	2	379787	4892387	0.0
	3	379787	4892387	0.0
	4	379787	4892387	0.0
564	1	380112	4892464	0.0
	2	380112	4892464	0.0
	3	380112	4892464	0.0
	4	380112	4892464	0.0
565	1	380029	4892404	0.0
	2	380029	4892404	0.0
	3	380029	4892404	0.0
	4	380029	4892404	0.0
566	1	380221	4892769	0.0

	2	380221	4892769	0.0
	3	380221	4892769	0.0
	4	380221	4892769	0.0
567	1	380260	4892854	0.0
	2	380260	4892854	0.0
	3	380260	4892854	0.0
	4	380260	4892854	0.0
568	1	380312	4892854	0.0
	2	380312	4892854	0.0
	3	380312	4892854	0.0
	4	380312	4892854	0.0
569	1	380392	4892854	0.0
	2	380392	4892854	0.0
	3	380392	4892854	0.0
	4	380392	4892854	0.0
570	1	380432	4892890	0.0
	2	380432	4892890	0.0
	3	380432	4892890	0.0
	4	380432	4892890	0.0
571	1	380472	4892767	0.0
	2	380472	4892767	0.0
	3	380472	4892767	0.0
	4	380472	4892767	0.0
572	1	380402	4892708	0.0
	2	380402	4892708	0.0
	3	380402	4892708	0.0
	4	380402	4892708	0.0
573	1	380319	4892774	0.0
	2	380319	4892774	0.0
	3	380319	4892774	0.0
	4	380319	4892774	0.0
574	1	380030	4891732	13.9
	2	380030	4891732	14.0
	3	380030	4891732	0.0
	4	380030	4891732	0.0
575	1	380930	4892450	6.3
	2	380930	4892450	6.3
	3	380930	4892450	0.0
	4	380930	4892450	0.0
576	1	383245	4892087	0.0
	2	383245	4892087	0.0
	3	383245	4892087	3.1
	4	383245	4892087	3.2
577	1	384884	4894401	0.0
	2	384884	4894401	0.0
	3	384884	4894401	0.0
	4	384884	4894401	0.0
578	1	384814	4894359	0.0
	2	384814	4894359	0.0
	3	384814	4894359	0.0
	4	384814	4894359	0.0

579	1	384831	4894360	0.0
	2	384831	4894360	0.0
	3	384831	4894360	0.0
	4	384831	4894360	0.0
580	1	384878	4894272	0.0
	2	384878	4894272	0.0
	3	384878	4894272	0.0
	4	384878	4894272	0.0
581	1	384857	4894207	0.0
	2	384857	4894207	0.0
	3	384857	4894207	0.0
	4	384857	4894207	0.0
582	1	385042	4894410	0.0
	2	385042	4894410	0.0
	3	385042	4894410	0.0
	4	385042	4894410	0.0
583	1	385102	4894426	0.0
	2	385102	4894426	0.0
	3	385102	4894426	0.0
	4	385102	4894426	0.0
584	1	385088	4894459	0.0
	2	385088	4894459	0.0
	3	385088	4894459	0.0
	4	385088	4894459	0.0
585	1	385078	4894434	0.0
	2	385078	4894434	0.0
	3	385078	4894434	0.0
	4	385078	4894434	0.0
586	1	385128	4894504	0.0
	2	385128	4894504	0.0
	3	385128	4894504	0.0
	4	385128	4894504	0.0
587	1	385136	4894521	0.0
	2	385136	4894521	0.0
	3	385136	4894521	0.0
	4	385136	4894521	0.0
588	1	385420	4894373	3.7
	2	385420	4894373	3.7
	3	385420	4894373	0.0
	4	385420	4894373	0.0
589	1	385444	4894326	4.0
	2	385444	4894326	4.0
	3	385444	4894326	0.0
	4	385444	4894326	0.0
590	1	385404	4894562	3.3
	2	385404	4894562	3.3
	3	385404	4894562	0.0
	4	385404	4894562	0.0
591	1	386848	4895015	0.0
	2	386848	4895015	0.0
	3	386848	4895015	0.0

	4	386848	4895015	0.0
592	1	387746	4893651	11.2
	2	387746	4893651	11.2
	3	387746	4893651	4.4
	4	387746	4893651	4.5
593	1	391923	4892318	0.0
	2	391923	4892318	0.0
	3	391923	4892318	0.0
	4	391923	4892318	0.0
594	1	387138	4891608	3.6
	2	387138	4891608	3.6
	3	387138	4891608	11.7
	4	387138	4891608	11.8
595	1	389713	4889395	0.0
	2	389713	4889395	0.0
	3	389713	4889395	15.4
	4	389713	4889395	15.6
596	1	389888	4889983	0.0
	2	389888	4889983	0.0
	3	389888	4889983	13.5
	4	389888	4889983	13.3
597	1	383415	4887427	10.2
	2	383415	4887427	10.2
	3	383415	4887427	0.0
	4	383415	4887427	0.0
598	1	380093	4891428	20.8
	2	380093	4891428	20.9
	3	380093	4891428	0.0
	4	380093	4891428	0.0

APPENDIX C CLOUD COVER

TRENTON A *

Latitude: 44° 7' N

Longitude: 77° 31' O

Identification Climat: 6158875

Identification OMM: 71621

Cloud cover [h]														
0-20%	162	169	217	203	207	209	236	234	217	214	130	149	2346.4	26.77%
30-70%	111	107	116	135	159	189	225	210	173	156	115	105	1800.3	20.54%
80-100%	471	402	412	382	378	322	284	300	330	374	475	491	4619	52.69%