

# VISUALIZING THE IMPACT OF EPISODIC AIR POLLUTION DURING OCTOBER 2018 TO FEBRUARY 2019 IN INDIAN CITIES



Project Title: Measurement & dissemination of air quality data  
using low cost monitors in 10 cities

## Acknowledgement

Respirer Living Sciences Pvt. Ltd. would like to thank Shakti Sustainable Energy Foundation for providing funding and strategic assistance in the establishment of Atmos network in Indian cities. The analysis this report presents is premised on the data from the Atmos monitors and pertaining to 9 cities among the selected cities.

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## Data access

For feedback, suggestions, PM<sub>2.5</sub> datasets and API access to the data, email – [research@urbansciences.in](mailto:research@urbansciences.in)

For more technical details and to view the real-time dashboard, visit – <http://atmos.urbansciences.in/dashboard/SSEF>

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# BACKGROUND

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Air pollution is a major public health risk causing about 4.2 million deaths every year worldwide<sup>1</sup>. The Indo-Gangetic Plain has grabbed global headlines for severe and persistent pollution levels, making India the pollution capital of the world.

The Indo-Gangetic Plain suffers from an inherent disadvantage of being landlocked. During winters, the quality worsens due to slow moving winds and temperature inversions that trap particulate matter, leading to a toxic accumulation of smog<sup>2</sup>. Whilst vehicular and industrial emissions contribute their fair share throughout the year, winter-time episodes due to firecracker and crop stubble burning, however, remain the most toxic.

Cities across India witnessed high pollution episodes in winters 2018-19. These were extensively covered via media reporting, particularly for Delhi. Additionally, limited reference grade monitors in cities other than Delhi NCR have meant a dearth of air quality data.

## Low-Cost Air Quality Monitoring across Indian Cities

To bridge this vital data gap, Respirer Living Sciences, as part of their UrbanSciences initiative and IIT Kanpur, with support from Shakti Sustainable Energy Foundation (SSEF) has deployed 50 low cost air quality monitors (Atmos) across Indian cities. These monitors were co-located and tested to assess their performance against reference grade monitors (E-BAM) and are primarily being deployed in residential and office buildings. The report attempts to visualise the impact of winter season and episodes on the pollution levels in the vicinity of deployed monitors. This report is second in a series of episode reports. The assessment period spans over 4.5 months, from October 15, 2018 to February 28, 2019, during which winter season 2018-19 was witnessed.

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<sup>1</sup> World Health Organization. (2019). Ambient Air Pollution. Accessed from <https://www.who.int/airpollution/en/>

<sup>2</sup> Srivastava, Dey & Tripathi. (2012). Aerosol Characteristics over the Indo-Gangetic Basin: Implications to Regional Climate. Intech. Accessed from <http://web.iitd.ac.in/~sagnik/Chapter.pdf>

## METHODOLOGY

The analyzed data has been derived from low-cost Atmos monitors manufactured and deployed by UrbanSciences.

Cities	No. of Monitors
Chandigarh*	5
Dehradun	5
Delhi-NCR	2
Jaipur	4
Kanpur	5
Patna	5
Varanasi	5
Ahmedabad	5
Raipur	5
Ranchi	5
Bhopal*	4



In North India, monitors were installed in **Chandigarh, Dehradun, Delhi-NCR, Jaipur, Kanpur, Patna and Varanasi**. In Central India, they were installed in **Ahmedabad, Bhopal, Raipur and Ranchi**.<sup>3</sup>

24-hour averages have been analyzed for Particulate Matter 2.5 (PM<sub>2.5</sub>) to understand the pollution trends over a period of 137 days. The 24-hour PM<sub>2.5</sub> averages have been further categorized into a color-coded index based on the levels of pollution on that particular day.

### Color-Coded Index

Our Code	GOOD		MODERATE		POOR	
PM <sub>2.5</sub>	0-30	31-60	61-90	91-120	121-250	250+
Air Quality	Good	Satisfactory	Moderate	Poor	Very Poor	Severe

<sup>3</sup> The monitors in Bhopal and Chandigarh were deployed in February 2019, thus the data from these two cities is not covered in this episode report.

## SUMMARY OF THE FINDINGS

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During the period from October 2018 to February 2019, Delhi, Patna and Varanasi recorded the worst air quality, with 73 to 79 percent “Poor” air quality days.

Patna had ZERO “Good” air quality days, whereas Varanasi had 4 percent and Delhi had 7 percent.

Following these three cities, Kanpur was next in line to be the most polluted out of the nine cities monitored for PM<sub>2.5</sub> levels.

Kanpur recorded 69 percent “Poor” days and 5 percent “Good” air quality days. It is important to note that the monitors located in Kanpur and other cities are not located at major traffic junctions, as in the case of regulatory grade monitors but are located across residential blocks, balconies of individual homes and roof tops.

The table below summarizes the percentage of “Good”, “Moderate” and “Poor” air quality days across nine cities. The ranking is based on the maximum “Poor” air quality days.

RANK	CITY	GOOD	MODERATE	POOR
1	PATNA	0%	21%	79%
2	VARANASI	4%	18%	78%
3	DELHI-NCR	7%	20%	73%
4	KANPUR	5%	26%	69%
5	RAIPUR	12%	66%	22%
6	RANCHI	20%	61%	19%
7	DEHRADUN	34%	49%	17%
8	JAIPUR	20%	73%	7%
9	AHMEDABAD	26%	67%	7%

## Highest Daily Averages or Maximum Values Recorded

### **Northern India: Kanpur, Patna, Delhi, Varanasi, Dehradun**

While the above rankings indicate the various category of days based on the air quality index for the PM<sub>2.5</sub> levels, the highest daily averages were recorded in the cities of Kanpur, Patna, Delhi, Varanasi and Dehradun.

Kanpur in particular had several poor air quality days during Diwali with persistent pollution levels peaking at 355, 449 and 305 micrograms per cubic meter.

### **Central India: Ranchi, Ahmedabad and Raipur**

In the cities across central India however, Ranchi topped the charts with Raipur and Ahmedabad after it.

The peaks experienced in these cities were significantly lower in comparison to most cities in the Northern part of the country.

## Ranking based on 137-Day Averages for Various Stations across the Nine Cities

Varanasi has witnessed the maximum PM<sub>2.5</sub> levels amongst the cities. The city consistently topped the charts for poor air quality for more than a couple of weeks in a row, indicating a persistent problem of poor air quality across the city.

Contrary to the popular opinion in the media and in the general public, most monitoring locations spread across cities in the Indo-Gangetic Plain have recorded averages higher than that of Delhi and Gurugram. The top five locations were identified to be in Varanasi, Kanpur and Patna.

Rank	City	Area	PM <sub>2.5</sub>
1	Varanasi	Town Hall	230
2	Patna	IGSC	223
3	Varanasi	Kamachcha	220
4	Patna	Mithapur	216
5	Kanpur	Govind Nagar	212
6	Delhi	Munirka	205
7	Patna	CECC ADRI	199
8	Kanpur	Chunniganj	192
9	Patna	Phulwari Sharif	190
10	Varanasi	Ordali Bazar	186
11	Delhi	Sector 30, Gurugram	169
12	Kanpur	Naubasta	163
13	Kanpur	Indira Nagar	148
14	Varanasi	IESD BHU	138

All the monitors spread across these cities recorded PM<sub>2.5</sub> averages in the “Moderate” and “Poor” category with air pollution levels exceeding the Indian safety norms i.e 40µg/m<sup>3</sup> and the World Health Organization’s safe air standards i.e 10µg/m<sup>3</sup>. The monitors spread across central Indian cities had lower air pollution levels with PM<sub>2.5</sub> averages not reaching the “Poor” category but remaining in “Moderate” to “Poor” air quality range. This however does not mean that the severity of air pollution is to be downplayed in the cities of Raipur, Ahmedabad and Ranchi. It is important to note that among the two stations cited in the ranking below for Raipur, both the stations vary greatly in terms of the prevailing pollution levels. Therefore, this demands more monitoring and a better understanding of air quality across cities in India to comprehensively understand the extent of the problem concerning ambient air quality.



# CITY-WISE ANALYSIS - Daily Average of PM<sub>2.5</sub> Levels

## Ahmedabad – Gandhinagar

Ahmedabad recorded a 137-day average of 89 micrograms per cubic meter which falls into the moderate air pollution category. The monitoring exercise spread across three different locations yielded 7 percent of the total monitored days for air quality to be in poor category with peak pollution during Diwali reaching 2.5 times the Indian Safety limits for PM<sub>2.5</sub> on a 24-hour basis.

Ahmedabad recorded the second highest number of moderate air quality days in comparison to the other cities, 67 percent of the monitored days were found to be in the moderate category.

<b>Sun</b>	- 30	- 07	- 14	43 <sup>21</sup>	54 <sup>28</sup>	94 <sup>04</sup>	96 <sup>11</sup>	113 <sup>18</sup>	64 <sup>25</sup>	
<b>Mon</b>	- 01	- 08	37 <sup>15</sup>	53 <sup>22</sup>	55 <sup>29</sup>	88 <sup>05</sup>	75 <sup>12</sup>	91 <sup>19</sup>	74 <sup>26</sup>	
<b>Tue</b>	- 02	- 09	47 <sup>16</sup>	84 <sup>23</sup>	55 <sup>30</sup>	78 <sup>06</sup>	93 <sup>13</sup>	83 <sup>20</sup>	62 <sup>27</sup>	
<b>Wed</b>	- 03	- 10	61 <sup>17</sup>	52 <sup>24</sup>	57 <sup>31</sup>	131 <sup>07</sup>	94 <sup>14</sup>	88 <sup>21</sup>	73 <sup>28</sup>	
<b>Thu</b>	- 04	- 11	54 <sup>18</sup>	67 <sup>25</sup>	66 <sup>01</sup>	154 <sup>08</sup>	71 <sup>15</sup>	87 <sup>22</sup>	109 <sup>29</sup>	
<b>Fri</b>	- 05	- 12	48 <sup>19</sup>	54 <sup>26</sup>	68 <sup>02</sup>	119 <sup>09</sup>	76 <sup>16</sup>	62 <sup>23</sup>	119 <sup>30</sup>	
<b>Sat</b>	- 06	- 13	53 <sup>20</sup>	72 <sup>27</sup>	87 <sup>03</sup>	107 <sup>10</sup>	87 <sup>17</sup>	59 <sup>24</sup>	- 01	
	October					November				

<b>Sun</b>	- 25	101 <sup>02</sup>	71 <sup>09</sup>	63 <sup>16</sup>	85 <sup>23</sup>	69 <sup>30</sup>	93 <sup>06</sup>	90 <sup>13</sup>	84 <sup>20</sup>	55 <sup>27</sup>
<b>Mon</b>	- 26	96 <sup>03</sup>	106 <sup>10</sup>	67 <sup>17</sup>	73 <sup>24</sup>	88 <sup>31</sup>	104 <sup>07</sup>	79 <sup>14</sup>	106 <sup>21</sup>	71 <sup>28</sup>
<b>Tue</b>	- 27	103 <sup>04</sup>	122 <sup>11</sup>	107 <sup>18</sup>	85 <sup>25</sup>	136 <sup>01</sup>	115 <sup>08</sup>	87 <sup>15</sup>	60 <sup>22</sup>	63 <sup>29</sup>
<b>Wed</b>	- 28	108 <sup>05</sup>	82 <sup>12</sup>	121 <sup>19</sup>	93 <sup>26</sup>	143 <sup>02</sup>	99 <sup>09</sup>	103 <sup>16</sup>	87 <sup>23</sup>	78 <sup>30</sup>
<b>Thu</b>	- 29	112 <sup>06</sup>	66 <sup>13</sup>	104 <sup>20</sup>	90 <sup>27</sup>	116 <sup>03</sup>	92 <sup>10</sup>	118 <sup>17</sup>	61 <sup>24</sup>	101 <sup>31</sup>
<b>Fri</b>	- 30	97 <sup>07</sup>	60 <sup>14</sup>	95 <sup>21</sup>	82 <sup>28</sup>	107 <sup>04</sup>	80 <sup>11</sup>	75 <sup>18</sup>	56 <sup>25</sup>	- 01
<b>Sat</b>	109 <sup>01</sup>	71 <sup>08</sup>	65 <sup>15</sup>	110 <sup>22</sup>	65 <sup>29</sup>	136 <sup>05</sup>	78 <sup>12</sup>	56 <sup>19</sup>	63 <sup>26</sup>	- 02
	December					January				

<b>Sun</b>	- 27	89 <sup>03</sup>	49 <sup>10</sup>	65 <sup>17</sup>	56 <sup>24</sup>
<b>Mon</b>	- 28	133 <sup>04</sup>	51 <sup>11</sup>	69 <sup>18</sup>	37 <sup>25</sup>
<b>Tue</b>	- 29	156 <sup>05</sup>	62 <sup>12</sup>	47 <sup>19</sup>	33 <sup>26</sup>
<b>Wed</b>	- 30	55 <sup>06</sup>	65 <sup>13</sup>	64 <sup>20</sup>	35 <sup>27</sup>
<b>Thu</b>	- 31	32 <sup>07</sup>	72 <sup>14</sup>	28 <sup>21</sup>	33 <sup>28</sup>
<b>Fri</b>	64 <sup>01</sup>	35 <sup>08</sup>	85 <sup>15</sup>	43 <sup>22</sup>	- 01
<b>Sat</b>	53 <sup>02</sup>	45 <sup>09</sup>	53 <sup>16</sup>	38 <sup>23</sup>	- 02
	February				

**Good Days:** 26%

**Moderate Days:** 67%

**Poor Days:** 7%

# Dehradun

Despite its proximity to Delhi, the hill city of Dehradun has fared to be the least polluted among the 9 cities. It recorded 49 percent of the monitored days to be in the moderate air quality limit and 34 percent of good air quality days. It also has low proportion of poor air quality days i.e. 17 percent with an exception of Diwali on the 7<sup>th</sup> and 8<sup>th</sup> of November where the city saw the season’s maximum levels of PM<sub>2.5</sub>, 2-3 times the Indian Safety limits on a 24-hour basis.

<b>Sun</b>	- 30	- 07	- 14	44 21	58 28	38 04	110 11	64 18	82 25	
<b>Mon</b>	- 01	- 08	- 15	44 22	59 29	51 05	81 12	69 19	55 26	
<b>Tue</b>	- 02	- 09	- 16	45 23	61 30	55 06	74 13	88 20	61 27	
<b>Wed</b>	- 03	- 10	- 17	37 24	60 31	194 07	72 14	79 21	37 28	
<b>Thu</b>	- 04	- 11	45 18	38 25	39 01	137 08	74 15	72 22	32 29	
<b>Fri</b>	- 05	- 12	46 19	48 26	33 02	82 09	73 16	71 23	51 30	
<b>Sat</b>	- 06	- 13	51 20	39 27	30 03	100 10	74 17	71 24	- 01	
	October					November				

<b>Sun</b>	- 25	110 02	88 09	83 16	118 23	163 30	141 06	101 13	105 20	76 27
<b>Mon</b>	- 26	116 03	87 10	91 17	110 24	152 31	113 07	82 14	58 21	65 28
<b>Tue</b>	- 27	126 04	106 11	106 18	125 25	173 01	109 08	107 15	26 22	76 29
<b>Wed</b>	- 28	139 05	94 12	95 19	144 26	153 02	132 09	108 16	59 23	72 30
<b>Thu</b>	- 29	112 06	83 13	120 20	142 27	125 03	122 10	102 17	72 24	83 31
<b>Fri</b>	- 30	86 07	87 14	134 21	129 28	104 04	129 11	99 18	61 25	- 01
<b>Sat</b>	103 01	83 08	93 15	127 22	125 29	126 05	106 12	128 19	60 26	- 02
	December					January				

<b>Sun</b>	- 27	74 03	74 10	59 17	56 24
<b>Mon</b>	- 28	97 04	78 11	51 18	53 25
<b>Tue</b>	- 29	95 05	88 12	34 19	37 26
<b>Wed</b>	- 30	61 06	103 13	42 20	27 27
<b>Thu</b>	- 31	40 07	85 14	34 21	42 28
<b>Fri</b>	57 01	48 08	35 15	40 22	- 01
<b>Sat</b>	56 02	56 09	30 16	52 23	- 02
	February				

**Good Days: 34%**

**Moderate Days: 49%**

**Poor Days: 17%**

# Delhi

India's capital city isn't the most polluted among the list even as it retains its position in the top five for having the maximum number of poor air quality days, after Patna, Kanpur and Varanasi. 20 and 73 percent of the days monitored were found to be in the moderate and poor categories respectively with PM<sub>2.5</sub> values consistently being close to and above 200 micrograms per cubic meter for three consecutive weeks in the month of November. 321 is the highest recorded daily average for Delhi which is equivalent to approximately 5 times the daily safe limit set by Indian government.

<b>Sun</b>	- 30	- 07	- 14	49 <sup>21</sup>	131 <sup>28</sup>	56 <sup>04</sup>	109 <sup>11</sup>	162 <sup>18</sup>	130 <sup>25</sup>		
<b>Mon</b>	- 01	- 08	111 <sup>15</sup>	25 <sup>22</sup>	118 <sup>29</sup>	199 <sup>05</sup>	234 <sup>12</sup>	189 <sup>19</sup>	211 <sup>26</sup>		
<b>Tue</b>	- 02	- 09	55 <sup>16</sup>	53 <sup>23</sup>	118 <sup>30</sup>	100 <sup>06</sup>	226 <sup>13</sup>	232 <sup>20</sup>	170 <sup>27</sup>		
<b>Wed</b>	- 03	- 10	74 <sup>17</sup>	43 <sup>24</sup>	105 <sup>31</sup>	108 <sup>07</sup>	139 <sup>14</sup>	195 <sup>21</sup>	179 <sup>28</sup>		
<b>Thu</b>	- 04	- 11	63 <sup>18</sup>	55 <sup>25</sup>	106 <sup>01</sup>	164 <sup>08</sup>	136 <sup>15</sup>	121 <sup>22</sup>	201 <sup>29</sup>		
<b>Fri</b>	- 05	- 12	43 <sup>19</sup>	47 <sup>26</sup>	106 <sup>02</sup>	144 <sup>09</sup>	171 <sup>16</sup>	183 <sup>23</sup>	221 <sup>30</sup>		
<b>Sat</b>	- 06	- 13	73 <sup>20</sup>	133 <sup>27</sup>	87 <sup>03</sup>	139 <sup>10</sup>	154 <sup>17</sup>	112 <sup>24</sup>	- 01		
	October					November					

<b>Sun</b>	- 25	137 <sup>02</sup>	212 <sup>09</sup>	121 <sup>16</sup>	234 <sup>23</sup>	223 <sup>30</sup>	197 <sup>06</sup>	277 <sup>13</sup>	189 <sup>20</sup>	192 <sup>27</sup>	
<b>Mon</b>	- 26	167 <sup>03</sup>	231 <sup>10</sup>	168 <sup>17</sup>	240 <sup>24</sup>	254 <sup>31</sup>	223 <sup>07</sup>	109 <sup>14</sup>	145 <sup>21</sup>	168 <sup>28</sup>	
<b>Tue</b>	- 27	188 <sup>04</sup>	234 <sup>11</sup>	171 <sup>18</sup>	217 <sup>25</sup>	214 <sup>01</sup>	213 <sup>08</sup>	141 <sup>15</sup>	91 <sup>22</sup>	168 <sup>29</sup>	
<b>Wed</b>	- 28	166 <sup>05</sup>	116 <sup>12</sup>	159 <sup>19</sup>	160 <sup>26</sup>	210 <sup>02</sup>	168 <sup>09</sup>	259 <sup>16</sup>	200 <sup>23</sup>	198 <sup>30</sup>	
<b>Thu</b>	- 29	183 <sup>06</sup>	119 <sup>13</sup>	203 <sup>20</sup>	158 <sup>27</sup>	298 <sup>03</sup>	176 <sup>10</sup>	321 <sup>17</sup>	153 <sup>24</sup>	186 <sup>31</sup>	
<b>Fri</b>	- 30	188 <sup>07</sup>	127 <sup>14</sup>	203 <sup>21</sup>	195 <sup>28</sup>	260 <sup>04</sup>	270 <sup>11</sup>	231 <sup>18</sup>	120 <sup>25</sup>	- 01	
<b>Sat</b>	147 <sup>01</sup>	194 <sup>08</sup>	123 <sup>15</sup>	229 <sup>22</sup>	150 <sup>29</sup>	268 <sup>05</sup>	216 <sup>12</sup>	209 <sup>19</sup>	146 <sup>26</sup>	- 02	
	December					January					

<b>Sun</b>	- 27	154 <sup>03</sup>	217 <sup>10</sup>	166 <sup>17</sup>	143 <sup>24</sup>	
<b>Mon</b>	- 28	200 <sup>04</sup>	241 <sup>11</sup>	147 <sup>18</sup>	100 <sup>25</sup>	
<b>Tue</b>	- 29	255 <sup>05</sup>	274 <sup>12</sup>	191 <sup>19</sup>	73 <sup>26</sup>	
<b>Wed</b>	- 30	222 <sup>06</sup>	244 <sup>13</sup>	125 <sup>20</sup>	56 <sup>27</sup>	
<b>Thu</b>	- 31	103 <sup>07</sup>	194 <sup>14</sup>	78 <sup>21</sup>	85 <sup>28</sup>	
<b>Fri</b>	219 <sup>01</sup>	70 <sup>08</sup>	158 <sup>15</sup>	101 <sup>22</sup>	- 01	
<b>Sat</b>	187 <sup>02</sup>	127 <sup>09</sup>	140 <sup>16</sup>	82 <sup>23</sup>	- 02	
	February					

**Good Days:** 7%

**Moderate Days:** 20%

**Poor Days:** 73%

# Jaipur

Rajasthan’s capital Jaipur recorded a similar percentage of good, moderate and poor air quality days to that of Ahmedabad. With 7 percent of days in poor category and 73 percent in moderate category, the city recorded its maximum PM<sub>2.5</sub> value for 24-hour on the 8<sup>th</sup> of November post Diwali at 158 micrograms per cubic meter which is equivalent to 2.5 times the Indian safe limit.

<b>Sun</b>	- 30	- 07	- 14	65 <sup>21</sup>	105 <sup>28</sup>	115 <sup>04</sup>	74 <sup>11</sup>	76 <sup>18</sup>	71 <sup>25</sup>
<b>Mon</b>	- 01	- 08	62 <sup>15</sup>	46 <sup>22</sup>	116 <sup>29</sup>	72 <sup>05</sup>	76 <sup>12</sup>	68 <sup>19</sup>	66 <sup>26</sup>
<b>Tue</b>	- 02	- 09	47 <sup>16</sup>	45 <sup>23</sup>	125 <sup>30</sup>	145 <sup>06</sup>	61 <sup>13</sup>	63 <sup>20</sup>	96 <sup>27</sup>
<b>Wed</b>	- 03	- 10	41 <sup>17</sup>	45 <sup>24</sup>	111 <sup>31</sup>	116 <sup>07</sup>	63 <sup>14</sup>	125 <sup>21</sup>	142 <sup>28</sup>
<b>Thu</b>	- 04	- 11	45 <sup>18</sup>	49 <sup>25</sup>	102 <sup>01</sup>	158 <sup>08</sup>	130 <sup>15</sup>	93 <sup>22</sup>	129 <sup>29</sup>
<b>Fri</b>	- 05	- 12	66 <sup>19</sup>	67 <sup>26</sup>	74 <sup>02</sup>	113 <sup>09</sup>	152 <sup>16</sup>	106 <sup>23</sup>	129 <sup>30</sup>
<b>Sat</b>	- 06	- 13	62 <sup>20</sup>	83 <sup>27</sup>	72 <sup>03</sup>	77 <sup>10</sup>	107 <sup>17</sup>	102 <sup>24</sup>	- 01
	October				November				

<b>Sun</b>	- 25	81 <sup>02</sup>	85 <sup>09</sup>	70 <sup>16</sup>	103 <sup>23</sup>	95 <sup>30</sup>	141 <sup>06</sup>	118 <sup>13</sup>	67 <sup>20</sup>	85 <sup>27</sup>
<b>Mon</b>	- 26	79 <sup>03</sup>	80 <sup>10</sup>	93 <sup>17</sup>	118 <sup>24</sup>	86 <sup>31</sup>	75 <sup>07</sup>	67 <sup>14</sup>	83 <sup>21</sup>	97 <sup>28</sup>
<b>Tue</b>	- 27	76 <sup>04</sup>	88 <sup>11</sup>	81 <sup>18</sup>	107 <sup>25</sup>	100 <sup>01</sup>	89 <sup>08</sup>	76 <sup>15</sup>	54 <sup>22</sup>	72 <sup>29</sup>
<b>Wed</b>	- 28	91 <sup>05</sup>	95 <sup>12</sup>	101 <sup>19</sup>	93 <sup>26</sup>	86 <sup>02</sup>	90 <sup>09</sup>	56 <sup>16</sup>	67 <sup>23</sup>	64 <sup>30</sup>
<b>Thu</b>	- 29	77 <sup>06</sup>	92 <sup>13</sup>	106 <sup>20</sup>	73 <sup>27</sup>	82 <sup>03</sup>	74 <sup>10</sup>	84 <sup>17</sup>	85 <sup>24</sup>	54 <sup>31</sup>
<b>Fri</b>	- 30	85 <sup>07</sup>	64 <sup>14</sup>	103 <sup>21</sup>	87 <sup>28</sup>	89 <sup>04</sup>	60 <sup>11</sup>	109 <sup>18</sup>	53 <sup>25</sup>	- 01
<b>Sat</b>	91 <sup>01</sup>	91 <sup>08</sup>	63 <sup>15</sup>	98 <sup>22</sup>	97 <sup>29</sup>	88 <sup>05</sup>	94 <sup>12</sup>	84 <sup>19</sup>	56 <sup>26</sup>	- 02
	December					January				

<b>Sun</b>	- 27	102 <sup>03</sup>	51 <sup>10</sup>	67 <sup>17</sup>	47 <sup>24</sup>
<b>Mon</b>	- 28	85 <sup>04</sup>	49 <sup>11</sup>	41 <sup>18</sup>	45 <sup>25</sup>
<b>Tue</b>	- 29	103 <sup>05</sup>	73 <sup>12</sup>	35 <sup>19</sup>	41 <sup>26</sup>
<b>Wed</b>	- 30	91 <sup>06</sup>	77 <sup>13</sup>	63 <sup>20</sup>	57 <sup>27</sup>
<b>Thu</b>	- 31	65 <sup>07</sup>	79 <sup>14</sup>	56 <sup>21</sup>	42 <sup>28</sup>
<b>Fri</b>	91 <sup>01</sup>	40 <sup>08</sup>	70 <sup>15</sup>	41 <sup>22</sup>	- 01
<b>Sat</b>	116 <sup>02</sup>	44 <sup>09</sup>	48 <sup>16</sup>	39 <sup>23</sup>	- 02
	February				

**Good Days:** 20%

**Moderate Days:** 73%

**Poor Days:** 7%

# Kanpur

Kanpur scored fourth after Patna, Varanasi and Delhi for having the maximum number of poor air quality days. The city recorded poor pollution averages for the whole of November with some of the days even recording poor air quality for three to four days in a row. The maximum 24-hour value for PM<sub>2.5</sub> is noted in Kanpur at 449 micrograms per cubic meter, more than 7.2 times the Indian safety limit.

<b>Sun</b>	- 30	- 07	- 14	67 <sup>21</sup>	155 <sup>28</sup>	122 <sup>04</sup>	246 <sup>11</sup>	230 <sup>18</sup>	169 <sup>25</sup>		
<b>Mon</b>	- 01	- 08	102 <sup>15</sup>	68 <sup>22</sup>	127 <sup>29</sup>	148 <sup>05</sup>	229 <sup>12</sup>	198 <sup>19</sup>	230 <sup>26</sup>		
<b>Tue</b>	- 02	- 09	96 <sup>16</sup>	121 <sup>23</sup>	73 <sup>30</sup>	185 <sup>06</sup>	153 <sup>13</sup>	217 <sup>20</sup>	206 <sup>27</sup>		
<b>Wed</b>	- 03	- 10	89 <sup>17</sup>	115 <sup>24</sup>	125 <sup>31</sup>	355 <sup>07</sup>	130 <sup>14</sup>	220 <sup>21</sup>	207 <sup>28</sup>		
<b>Thu</b>	- 04	- 11	117 <sup>18</sup>	112 <sup>25</sup>	146 <sup>01</sup>	449 <sup>08</sup>	155 <sup>15</sup>	196 <sup>22</sup>	136 <sup>29</sup>		
<b>Fri</b>	- 05	- 12	46 <sup>19</sup>	107 <sup>26</sup>	149 <sup>02</sup>	305 <sup>09</sup>	115 <sup>16</sup>	175 <sup>23</sup>	170 <sup>30</sup>		
<b>Sat</b>	- 06	- 13	64 <sup>20</sup>	137 <sup>27</sup>	110 <sup>03</sup>	253 <sup>10</sup>	167 <sup>17</sup>	131 <sup>24</sup>	- 01		
	October					November					

<b>Sun</b>	- 25	170 <sup>02</sup>	226 <sup>09</sup>	177 <sup>16</sup>	241 <sup>23</sup>	295 <sup>30</sup>	175 <sup>06</sup>	228 <sup>13</sup>	209 <sup>20</sup>	89 <sup>27</sup>	
<b>Mon</b>	- 26	201 <sup>03</sup>	216 <sup>10</sup>	176 <sup>17</sup>	223 <sup>24</sup>	265 <sup>31</sup>	148 <sup>07</sup>	103 <sup>14</sup>	162 <sup>21</sup>	104 <sup>28</sup>	
<b>Tue</b>	- 27	244 <sup>04</sup>	206 <sup>11</sup>	168 <sup>18</sup>	186 <sup>25</sup>	279 <sup>01</sup>	142 <sup>08</sup>	101 <sup>15</sup>	171 <sup>22</sup>	107 <sup>29</sup>	
<b>Wed</b>	- 28	226 <sup>05</sup>	186 <sup>12</sup>	194 <sup>19</sup>	218 <sup>26</sup>	292 <sup>02</sup>	124 <sup>09</sup>	230 <sup>16</sup>	80 <sup>23</sup>	155 <sup>30</sup>	
<b>Thu</b>	- 29	226 <sup>06</sup>	150 <sup>13</sup>	218 <sup>20</sup>	219 <sup>27</sup>	218 <sup>03</sup>	170 <sup>10</sup>	233 <sup>17</sup>	112 <sup>24</sup>	129 <sup>31</sup>	
<b>Fri</b>	- 30	193 <sup>07</sup>	130 <sup>14</sup>	223 <sup>21</sup>	145 <sup>28</sup>	220 <sup>04</sup>	278 <sup>11</sup>	188 <sup>18</sup>	106 <sup>25</sup>	- 01	
<b>Sat</b>	- 01	196 <sup>01</sup>	214 <sup>08</sup>	141 <sup>15</sup>	247 <sup>22</sup>	189 <sup>29</sup>	177 <sup>05</sup>	280 <sup>12</sup>	209 <sup>19</sup>	110 <sup>26</sup>	
	December					January					

<b>Sun</b>	- 27	141 <sup>03</sup>	87 <sup>10</sup>	78 <sup>17</sup>	64 <sup>24</sup>	
<b>Mon</b>	- 28	147 <sup>04</sup>	122 <sup>11</sup>	76 <sup>18</sup>	92 <sup>25</sup>	
<b>Tue</b>	- 29	208 <sup>05</sup>	175 <sup>12</sup>	76 <sup>19</sup>	41 <sup>26</sup>	
<b>Wed</b>	- 30	129 <sup>06</sup>	150 <sup>13</sup>	96 <sup>20</sup>	30 <sup>27</sup>	
<b>Thu</b>	- 31	67 <sup>07</sup>	131 <sup>14</sup>	76 <sup>21</sup>	36 <sup>28</sup>	
<b>Fri</b>	- 01	128 <sup>01</sup>	81 <sup>08</sup>	69 <sup>15</sup>	60 <sup>22</sup>	- 01
<b>Sat</b>	- 02	134 <sup>02</sup>	59 <sup>09</sup>	76 <sup>16</sup>	39 <sup>23</sup>	- 02
	February					

**Good Days:** 5%

**Moderate Days:** 26%

**Poor Days:** 69%

# Patna

Patna remains the most polluted of the 9 cities monitored as it recorded the maximum number of poor air quality days with 79 percent of the total monitored days in poor category. The city also recorded 'zero' good air days with the daily PM<sub>2.5</sub> averages ranging between 140 to 270 micrograms per cubic meter for most days in November 2018.

The maximum PM<sub>2.5</sub> value was recorded on 5<sup>th</sup> January at 395. The levels consistently crossed the India safe limits for PM<sub>2.5</sub> by 5-6 times.

<b>Sun</b>	- 30	- 07	- 14	122 <sup>21</sup>	132 <sup>28</sup>	140 <sup>04</sup>	222 <sup>11</sup>	186 <sup>18</sup>	256 <sup>25</sup>		
<b>Mon</b>	- 01	- 08	95 <sup>15</sup>	136 <sup>22</sup>	120 <sup>29</sup>	161 <sup>05</sup>	222 <sup>12</sup>	271 <sup>19</sup>	253 <sup>26</sup>		
<b>Tue</b>	- 02	- 09	95 <sup>16</sup>	121 <sup>23</sup>	107 <sup>30</sup>	181 <sup>06</sup>	207 <sup>13</sup>	267 <sup>20</sup>	195 <sup>27</sup>		
<b>Wed</b>	- 03	- 10	99 <sup>17</sup>	103 <sup>24</sup>	89 <sup>31</sup>	246 <sup>07</sup>	189 <sup>14</sup>	268 <sup>21</sup>	160 <sup>28</sup>		
<b>Thu</b>	- 04	- 11	115 <sup>18</sup>	135 <sup>25</sup>	116 <sup>01</sup>	233 <sup>08</sup>	158 <sup>15</sup>	192 <sup>22</sup>	190 <sup>29</sup>		
<b>Fri</b>	- 05	- 12	96 <sup>19</sup>	143 <sup>26</sup>	120 <sup>02</sup>	159 <sup>09</sup>	98 <sup>16</sup>	209 <sup>23</sup>	196 <sup>30</sup>		
<b>Sat</b>	- 06	- 13	117 <sup>20</sup>	128 <sup>27</sup>	130 <sup>03</sup>	185 <sup>10</sup>	118 <sup>17</sup>	205 <sup>24</sup>	- 01		
	October					November					

<b>Sun</b>	- 25	219 <sup>02</sup>	267 <sup>09</sup>	167 <sup>16</sup>	268 <sup>23</sup>	271 <sup>30</sup>	214 <sup>06</sup>	246 <sup>13</sup>	240 <sup>20</sup>	112 <sup>27</sup>	
<b>Mon</b>	- 26	233 <sup>03</sup>	307 <sup>10</sup>	243 <sup>17</sup>	238 <sup>24</sup>	323 <sup>31</sup>	227 <sup>07</sup>	190 <sup>14</sup>	269 <sup>21</sup>	116 <sup>28</sup>	
<b>Tue</b>	- 27	235 <sup>04</sup>	262 <sup>11</sup>	292 <sup>18</sup>	229 <sup>25</sup>	373 <sup>01</sup>	147 <sup>08</sup>	125 <sup>15</sup>	241 <sup>22</sup>	131 <sup>29</sup>	
<b>Wed</b>	- 28	276 <sup>05</sup>	258 <sup>12</sup>	209 <sup>19</sup>	234 <sup>26</sup>	361 <sup>02</sup>	167 <sup>09</sup>	194 <sup>16</sup>	151 <sup>23</sup>	154 <sup>30</sup>	
<b>Thu</b>	- 29	242 <sup>06</sup>	258 <sup>13</sup>	283 <sup>20</sup>	224 <sup>27</sup>	344 <sup>03</sup>	227 <sup>10</sup>	227 <sup>17</sup>	158 <sup>24</sup>	210 <sup>31</sup>	
<b>Fri</b>	- 30	227 <sup>07</sup>	227 <sup>14</sup>	279 <sup>21</sup>	203 <sup>28</sup>	325 <sup>04</sup>	251 <sup>11</sup>	238 <sup>18</sup>	212 <sup>25</sup>	- 01	
<b>Sat</b>	224 <sup>01</sup>	255 <sup>08</sup>	160 <sup>15</sup>	303 <sup>22</sup>	243 <sup>29</sup>	395 <sup>05</sup>	264 <sup>12</sup>	223 <sup>19</sup>	202 <sup>26</sup>	- 02	
	December					January					

<b>Sun</b>	- 27	208 <sup>03</sup>	101 <sup>10</sup>	93 <sup>17</sup>	63 <sup>24</sup>	
<b>Mon</b>	- 28	188 <sup>04</sup>	114 <sup>11</sup>	92 <sup>18</sup>	86 <sup>25</sup>	
<b>Tue</b>	- 29	165 <sup>05</sup>	126 <sup>12</sup>	133 <sup>19</sup>	142 <sup>16</sup>	
<b>Wed</b>	- 30	181 <sup>06</sup>	160 <sup>13</sup>	124 <sup>20</sup>	77 <sup>27</sup>	
<b>Thu</b>	- 31	187 <sup>07</sup>	174 <sup>14</sup>	108 <sup>21</sup>	69 <sup>28</sup>	
<b>Fri</b>	250 <sup>01</sup>	110 <sup>08</sup>	148 <sup>15</sup>	141 <sup>22</sup>	- 01	
<b>Sat</b>	240 <sup>02</sup>	95 <sup>09</sup>	94 <sup>16</sup>	68 <sup>23</sup>	- 02	
	February					

**Good Days:** 0%

**Moderate Days:** 21%

**Poor Days:** 79%

# Raipur

The central Indian city of Raipur fared at number 5 for having the maximum number of poor air quality days. The average values derived for the 45-day period for two different monitoring locations varied from poor to moderate. The city recorded close to 22 percent of its monitored days with poor air quality; the maximum PM<sub>2.5</sub> concentration was observed on December 6<sup>th</sup> at 158 micrograms per cubic meter.

<b>Sun</b>	- 30	- 07	- 14	79 <sup>21</sup>	56 <sup>28</sup>	71 <sup>04</sup>	117 <sup>11</sup>	83 <sup>18</sup>	57 <sup>25</sup>		
<b>Mon</b>	- 01	- 08	63 <sup>15</sup>	79 <sup>22</sup>	82 <sup>29</sup>	81 <sup>05</sup>	113 <sup>12</sup>	92 <sup>19</sup>	64 <sup>26</sup>		
<b>Tue</b>	- 02	- 09	74 <sup>16</sup>	96 <sup>23</sup>	80 <sup>30</sup>	74 <sup>06</sup>	113 <sup>13</sup>	72 <sup>20</sup>	61 <sup>27</sup>		
<b>Wed</b>	- 03	- 10	67 <sup>17</sup>	73 <sup>24</sup>	50 <sup>31</sup>	139 <sup>07</sup>	107 <sup>14</sup>	73 <sup>21</sup>	104 <sup>28</sup>		
<b>Thu</b>	- 04	- 11	60 <sup>18</sup>	98 <sup>25</sup>	45 <sup>01</sup>	117 <sup>08</sup>	92 <sup>15</sup>	78 <sup>22</sup>	134 <sup>29</sup>		
<b>Fri</b>	- 05	- 12	71 <sup>19</sup>	80 <sup>26</sup>	64 <sup>02</sup>	116 <sup>09</sup>	75 <sup>16</sup>	55 <sup>23</sup>	134 <sup>30</sup>		
<b>Sat</b>	- 06	- 13	85 <sup>20</sup>	79 <sup>27</sup>	60 <sup>03</sup>	118 <sup>10</sup>	72 <sup>17</sup>	51 <sup>24</sup>	- 01		
	October					November					

<b>Sun</b>	- 25	142 <sup>02</sup>	140 <sup>09</sup>	86 <sup>16</sup>	115 <sup>23</sup>	155 <sup>30</sup>	118 <sup>06</sup>	87 <sup>13</sup>	111 <sup>20</sup>	84 <sup>27</sup>	
<b>Mon</b>	- 26	148 <sup>03</sup>	129 <sup>10</sup>	63 <sup>17</sup>	153 <sup>24</sup>	148 <sup>31</sup>	114 <sup>07</sup>	119 <sup>14</sup>	89 <sup>21</sup>	76 <sup>28</sup>	
<b>Tue</b>	- 27	119 <sup>04</sup>	142 <sup>11</sup>	53 <sup>18</sup>	155 <sup>25</sup>	111 <sup>01</sup>	112 <sup>08</sup>	85 <sup>15</sup>	64 <sup>22</sup>	62 <sup>29</sup>	
<b>Wed</b>	- 28	143 <sup>05</sup>	124 <sup>12</sup>	92 <sup>19</sup>	117 <sup>26</sup>	137 <sup>02</sup>	167 <sup>09</sup>	98 <sup>16</sup>	91 <sup>23</sup>	68 <sup>30</sup>	
<b>Thu</b>	- 29	158 <sup>06</sup>	116 <sup>13</sup>	130 <sup>20</sup>	113 <sup>27</sup>	150 <sup>03</sup>	161 <sup>10</sup>	143 <sup>17</sup>	80 <sup>24</sup>	82 <sup>31</sup>	
<b>Fri</b>	- 30	135 <sup>07</sup>	130 <sup>14</sup>	145 <sup>21</sup>	118 <sup>28</sup>	122 <sup>04</sup>	101 <sup>11</sup>	119 <sup>18</sup>	45 <sup>25</sup>	- 01	
<b>Sat</b>	153 <sup>01</sup>	111 <sup>08</sup>	92 <sup>15</sup>	109 <sup>22</sup>	80 <sup>29</sup>	121 <sup>05</sup>	117 <sup>12</sup>	111 <sup>19</sup>	65 <sup>26</sup>	- 02	
	December					January					

<b>Sun</b>	- 27	109 <sup>03</sup>	57 <sup>10</sup>	68 <sup>17</sup>	- 24
<b>Mon</b>	- 28	81 <sup>04</sup>	66 <sup>11</sup>	46 <sup>18</sup>	- 25
<b>Tue</b>	- 29	104 <sup>05</sup>	91 <sup>12</sup>	58 <sup>19</sup>	- 26
<b>Wed</b>	- 30	78 <sup>06</sup>	103 <sup>13</sup>	57 <sup>20</sup>	- 27
<b>Thu</b>	- 31	66 <sup>07</sup>	124 <sup>14</sup>	69 <sup>21</sup>	34 <sup>28</sup>
<b>Fri</b>	79 <sup>01</sup>	71 <sup>08</sup>	85 <sup>15</sup>	60 <sup>22</sup>	- 01
<b>Sat</b>	95 <sup>02</sup>	73 <sup>09</sup>	50 <sup>16</sup>	- 23	- 02
	February				

**Good Days:** 12%      **Moderate Days:** 66%      **Poor Days:** 22%

# Ranchi

Ranchi ranked 7<sup>th</sup> out of the 9 cities for the number of poor air quality days. It is one of the cities after Jaipur to record the maximum number of moderate air quality days. 61 percent of the monitored days were found to have moderate air quality. The city recorded its highest daily value for PM<sub>2.5</sub> on January 4th at 214 micrograms per cubic meter, 3-4 times the Indian safety limits.

Sun	- 30	- 07	- 14	54 21	79 28	113 04	97 11	90 18	82 25	
Mon	- 01	- 08	51 15	64 22	103 29	91 05	110 12	85 19	104 26	
Tue	- 02	- 09	60 16	67 23	64 30	84 06	118 13	61 20	101 27	
Wed	- 03	- 10	49 17	54 24	88 31	163 07	88 14	53 21	101 28	
Thu	- 04	- 11	49 18	48 25	79 01	110 08	67 15	80 22	126 29	
Fri	- 05	- 12	46 19	79 26	74 02	78 09	67 16	94 23	117 30	
Sat	- 06	- 13	43 20	69 27	77 03	114 10	77 17	87 24	- 01	
October					November					

Sun	- 25	125 02	110 09	102 16	102 23	135 30	195 06	158 13	82 20	- 27
Mon	- 26	128 03	136 10	89 17	111 24	129 31	118 07	140 14	76 21	- 28
Tue	- 27	120 04	175 11	42 18	95 25	163 01	138 08	75 15	90 22	- 29
Wed	- 28	123 05	187 12	96 19	88 26	131 02	90 09	65 16	79 23	- 30
Thu	- 29	91 06	158 13	108 20	88 27	106 03	99 10	87 17	- 24	- 31
Fri	- 30	102 07	110 14	134 21	70 28	214 04	127 11	84 18	- 25	- 01
Sat	110 01	121 08	100 15	130 22	109 29	161 05	131 12	105 19	- 26	- 02
December					January					

Sun	- 27	43 03	45 10	45 17	40 24	
Mon	- 28	- 04	68 11	69 18	39 25	
Tue	- 29	- 05	73 12	84 19	60 26	
Wed	- 30	- 06	82 13	53 20	48 27	
Thu	- 31	- 07	74 14	57 21	48 28	
Fri	- 01	- 08	68 15	45 22	- 01	
Sat	- 02	75 09	35 16	58 23	- 02	
February						

Good Days: 20%

Moderate Days: 61%

Poor Days: 19%



# Varanasi

The country's spiritual capital remained one of the most unsafe cities to live in with poor to moderate PM<sub>2.5</sub> levels being recorded for 78 percent of the days monitored. The city consistently recorded poor air quality levels from the third week of October and remained so till the end of January. The peak levels were recorded on the 1<sup>st</sup> January at 324 micrograms per cubic meter, exceeding the Indian safe air limits by 5 times.

<b>Sun</b>	- 30	- 07	- 14	25 <sup>21</sup>	142 <sup>28</sup>	109 <sup>04</sup>	200 <sup>11</sup>	156 <sup>18</sup>	111 <sup>25</sup>		
<b>Mon</b>	- 01	- 08	110 <sup>15</sup>	105 <sup>22</sup>	157 <sup>29</sup>	145 <sup>05</sup>	176 <sup>12</sup>	138 <sup>19</sup>	122 <sup>26</sup>		
<b>Tue</b>	- 02	- 09	110 <sup>16</sup>	103 <sup>23</sup>	131 <sup>30</sup>	168 <sup>06</sup>	160 <sup>13</sup>	132 <sup>20</sup>	140 <sup>27</sup>		
<b>Wed</b>	- 03	- 10	25 <sup>17</sup>	112 <sup>24</sup>	125 <sup>31</sup>	172 <sup>07</sup>	141 <sup>14</sup>	137 <sup>21</sup>	138 <sup>28</sup>		
<b>Thu</b>	- 04	- 11	23 <sup>18</sup>	136 <sup>25</sup>	128 <sup>01</sup>	172 <sup>08</sup>	190 <sup>15</sup>	116 <sup>22</sup>	143 <sup>29</sup>		
<b>Fri</b>	- 05	- 12	19 <sup>19</sup>	128 <sup>26</sup>	132 <sup>02</sup>	182 <sup>09</sup>	149 <sup>16</sup>	132 <sup>23</sup>	166 <sup>30</sup>		
<b>Sat</b>	- 06	- 13	24 <sup>20</sup>	106 <sup>27</sup>	129 <sup>03</sup>	198 <sup>10</sup>	136 <sup>17</sup>	123 <sup>24</sup>	- 01		
	October					November					

<b>Sun</b>	- 25	234 <sup>02</sup>	269 <sup>09</sup>	161 <sup>16</sup>	234 <sup>23</sup>	236 <sup>30</sup>	226 <sup>06</sup>	253 <sup>13</sup>	195 <sup>20</sup>	140 <sup>27</sup>	
<b>Mon</b>	- 26	211 <sup>03</sup>	266 <sup>10</sup>	224 <sup>17</sup>	202 <sup>24</sup>	306 <sup>31</sup>	158 <sup>07</sup>	194 <sup>14</sup>	215 <sup>21</sup>	151 <sup>28</sup>	
<b>Tue</b>	- 27	245 <sup>04</sup>	199 <sup>11</sup>	164 <sup>18</sup>	156 <sup>25</sup>	324 <sup>01</sup>	204 <sup>08</sup>	122 <sup>15</sup>	196 <sup>22</sup>	124 <sup>29</sup>	
<b>Wed</b>	- 28	265 <sup>05</sup>	225 <sup>12</sup>	163 <sup>19</sup>	177 <sup>26</sup>	330 <sup>02</sup>	157 <sup>09</sup>	178 <sup>16</sup>	152 <sup>23</sup>	128 <sup>30</sup>	
<b>Thu</b>	- 29	254 <sup>06</sup>	230 <sup>13</sup>	254 <sup>20</sup>	181 <sup>27</sup>	277 <sup>03</sup>	188 <sup>10</sup>	232 <sup>17</sup>	163 <sup>24</sup>	152 <sup>31</sup>	
<b>Fri</b>	- 30	273 <sup>07</sup>	172 <sup>14</sup>	185 <sup>21</sup>	169 <sup>28</sup>	253 <sup>04</sup>	279 <sup>11</sup>	221 <sup>18</sup>	182 <sup>25</sup>	- 01	
<b>Sat</b>		239 <sup>01</sup>	216 <sup>08</sup>	139 <sup>15</sup>	208 <sup>22</sup>	262 <sup>05</sup>	282 <sup>12</sup>	211 <sup>19</sup>	130 <sup>26</sup>	- 02	
		December					January				

<b>Sun</b>	- 27	179 <sup>03</sup>	75 <sup>10</sup>	75 <sup>17</sup>	66 <sup>24</sup>	
<b>Mon</b>	- 28	163 <sup>04</sup>	127 <sup>11</sup>	78 <sup>18</sup>	94 <sup>25</sup>	
<b>Tue</b>	- 29	174 <sup>05</sup>	145 <sup>12</sup>	76 <sup>19</sup>	117 <sup>26</sup>	
<b>Wed</b>	- 30	173 <sup>06</sup>	164 <sup>13</sup>	122 <sup>20</sup>	67 <sup>27</sup>	
<b>Thu</b>	- 31	125 <sup>07</sup>	147 <sup>14</sup>	102 <sup>21</sup>	73 <sup>28</sup>	
<b>Fri</b>		211 <sup>01</sup>	103 <sup>08</sup>	91 <sup>15</sup>	85 <sup>22</sup>	- 01
<b>Sat</b>		204 <sup>02</sup>	78 <sup>09</sup>	84 <sup>16</sup>	61 <sup>23</sup>	- 02
		February				

**Good Days:** 4%

**Moderate Days:** 18%

**Poor Days:** 78%