ATL airport prediction

Use 2017 data to establish model but use 2016 data to simulate our test because we do not have data for 2018 delay rate.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| date | visibility/mi | wind speed/mph | **real delay rate/%** | estimated delay rate via linear visibility | estimated delay rate via quadratic  visibility | estimated delay rate via linear wind speed | estimated delay rate via quadratic wind speed |
| 1.1 | 10 | 13.45 | **9.9** | 15.5 | 13.7 | 20.3 | 18.4 |
| 1.3 | 10 | 10.09 | **18.2** | 15.5 | 13.7 | 14.6 | 15.5 |
| 1.5 | 10 | 10.16 | **7.4** | 15.5 | 13.7 | 14.7 | 15.5 |
| 1.9 | 3.44 | 9.6 | **11.6** | 23.1 | 24.0 | 13.7 | 15.1 |

estimated delay rate via linear visibility: y=-0.0116x+0.271

estimated delay rate via quadratic visibility: y=-0.001x^2-0.00227x+0.26

estimated delay rate via linear wind speed: y=0.0172x-0.0279

estimated delay rate via quadratic wind speed: y=0.0005x^2-0.0031x+0.135