**READme for CA Visibility Data**

Data were sourced from the Interagency Monitoring of Protected Visual Environments (IMPROVE) program database. IMPROVE monitors visibility conditions, trends and aims to identify regional haze aetiology at over 160 rural sites in the USA, Canada and South Korea. It is managed by the Air Quality Research Center at UC Davis in conjunction with the EPA. For more information, see their website: <https://airquality.ucdavis.edu/improve>

**Code book**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Description | Units | Comments |
| Latitude | Latitude | Degrees decimal |  |
| Longitude | Longitude | Degrees decimal |  |
| Elevation | Elevation at station | Feet |  |
| ammNO3f | Ammonium Nitrate (fine) | ug/m^3 | Solid particles which dissolve at high humidity and negatively impact visibility. Released when biomass burns. |
| ammSO4 | Ammonium Sulfate (fine) | ug/m^3 | Solid particles which dissolve at high humidity and negatively impact visibility. Released when biomass burns. |
| ECf | Elemental Carbon (fine) | ug/m^3 |  |
| OMCf | Carbon, Organic Mass (Fine) (1.8\*OC) | ug/m^3 | Main metric for smoke |
| SOILf | Soil particles (fine) | ug/m^3 |  |
| SVR | Standard Visual Range | km | Measure of clarity |

Key info: <http://views.cira.colostate.edu/fed/Pub/DatasetDetail.aspx?dssl=1&dsidse=10001>

**Group Contributions**

Data exploration & presentation – all group members

Introduction, mapping & GIT repository management – Oonagh Pretorius

Shiny App 1: Visibility California – Bao Nguyen

Shiny App 2: Seasonal Metrics – Gabe Jones

Data interpretation & conclusion – Yakuri Ide

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