**OBSERVATION – CANCELLATION ANALYSIS**

**1. Monthly Cancellation Trends**

* Cancellations peak significantly during the winter months (December, January, and February).
* The summer months (June, July, August) also show a noticeable, though smaller, increase in cancellations compared to the spring and fall.

**2. Cancellations: Winter vs Other Months**

* Winter is responsible for a disproportionately high number of flight cancellations compared to the rest of the year combined.
* The number of cancellations in winter is nearly double that of all other months combined, highlighting its extreme impact on air travel.

**3. Cancellations by Type**

* Weather is the dominant cause of flight cancellations by a very large margin.
* Cancellations due to Carrier (airline-related issues) and NAS (National Air System, e.g., airport congestion, heavy traffic) are the next most common causes, while those due to Security are extremely rare.

**4. Number of Flights by Cancellation Code (Log Scale)**

* Flights that are not cancelled represent the vast majority of all operations, dwarfing the scale of any cancellation reason.
* Among cancelled flights, weather-related cancellations are the most frequent, occurring orders of magnitude more often than those for security reasons.