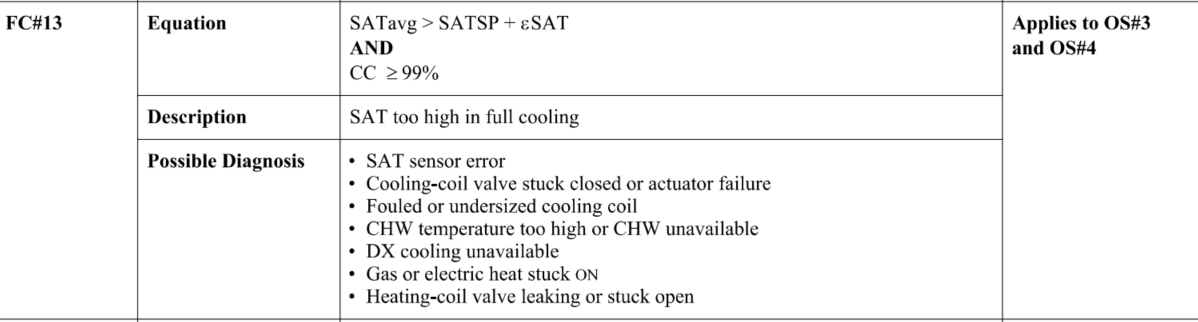
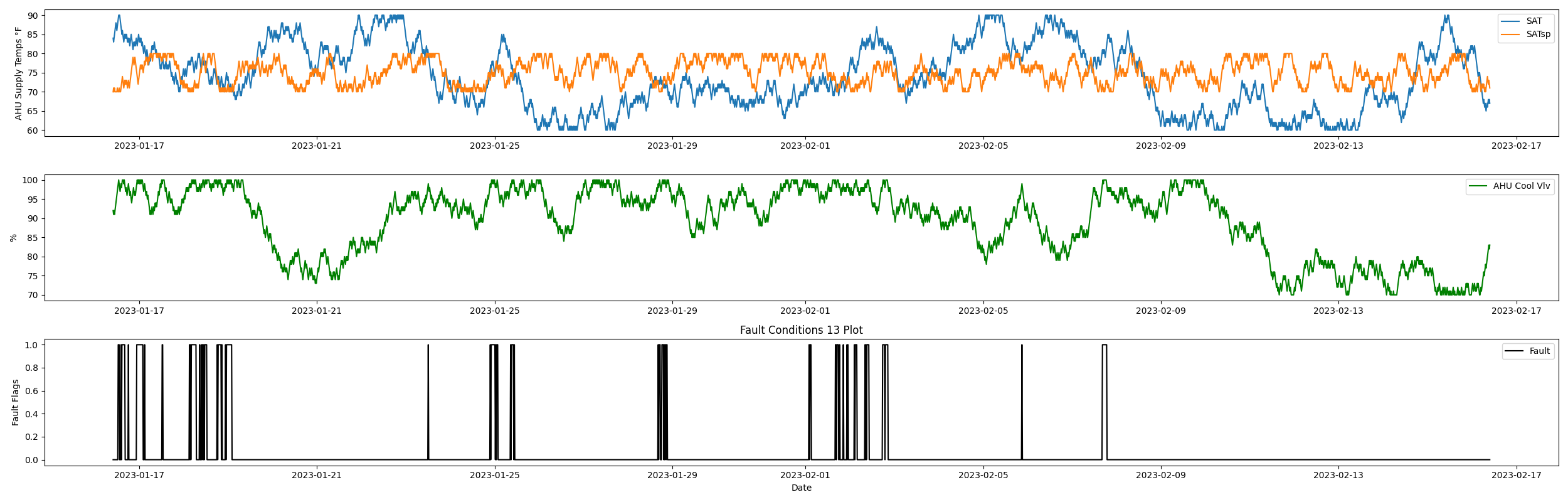
Fault Condition Thirteen Report

Fault condition thirteen of ASHRAE Guideline 36 is an AHU cooling mode only with an attempt at verifying the AHU cooling valve is not stuck or leaking by verifying AHU supply temperature to supply temperature setpoint. Fault condition thirteen equation as defined by ASHRAE:



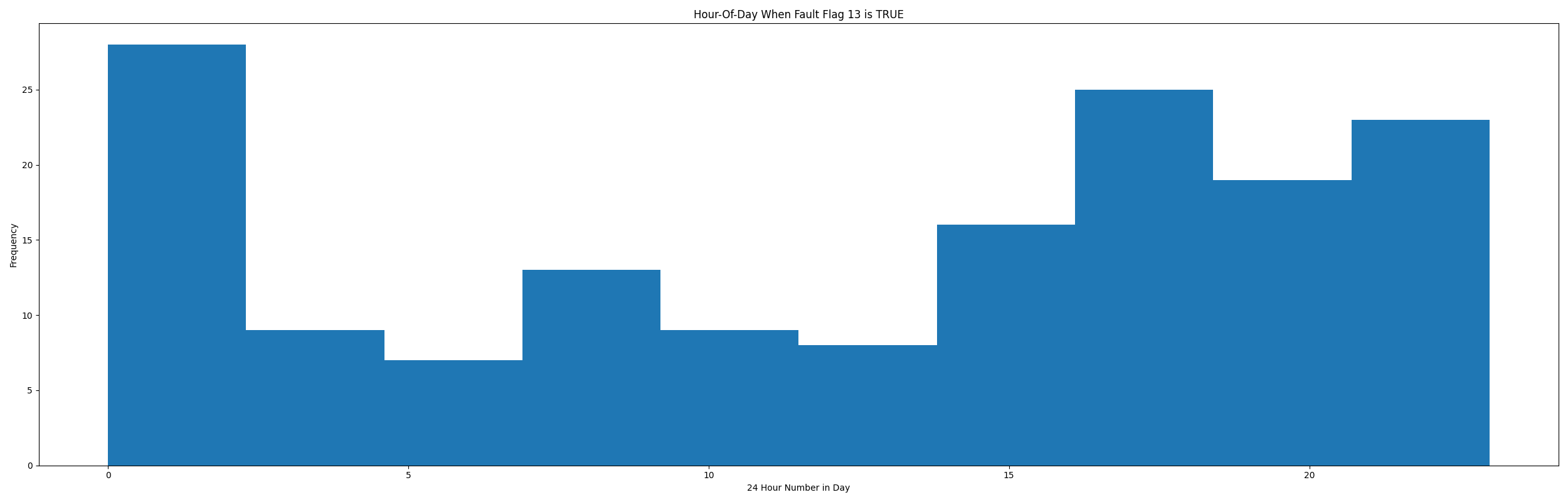
## Dataset Plot



## Dataset Statistics

* Total time in days calculated in dataset: 30.99
* Total time in hours calculated in dataset: 743.75
* Total time in hours for when fault Flag 13 is True: 39.25
* Percent of time in the dataset when the fault Flag 13 is True: 5.28%
* Percent of time in the dataset when fault Flag 13 is False: 94.72%

## Time-of-day Histogram Plots



* When fault condition 13 is True the average supply temperature is 77.62°F. This data along with time-of-day could possibly help with pin pointing AHU operating conditions for when this fault is True.

## Supply Temp Statistics

* count 2976.000000  
  mean 73.863239  
  std 8.432377  
  min 60.000000  
  25% 67.000000  
  50% 73.000000  
  75% 81.000000  
  max 90.000000  
  Name: sat, dtype: float64

## Supply Temp Setpoint Statistics

* count 2976.000000  
  mean 75.133737  
  std 3.073157  
  min 70.000000  
  25% 73.000000  
  50% 75.000000  
  75% 78.000000  
  max 80.000000  
  Name: satsp, dtype: float64

## Cooling Coil Valve Statistics

* count 2976.000000  
  mean 89.355175  
  std 8.804689  
  min 70.000000  
  25% 83.000000  
  50% 92.000000  
  75% 97.000000  
  max 100.000000  
  Name: clg, dtype: float64

## Suggestions based on data analysis

* The percent True metric that represents the amount of time for when the fault flag is True is high indicating the AHU temperature sensors are out of calibration

Report generated: Tue Feb 7 12:34:20 2023