



**QUANTIFYING THE CARBON FOOTPRINT AND AEROSOL EMISSIONS FROM VAPE DEVICES THROUGH PORTABLE UV SPECTROSCOPY INTO NEAR SPACE**



- TECHRISE
- SCHOOL: SICANGU OYATE HO INC. SAINT FRANCIS INDIAN SCHOOL
- TECHRISE
- LOCATION: ST. FRANCIS, SD
- TECHRISE
- FLIGHT PROVIDER: WORLD VIEW
- TECHRISE
- GRADES: MIDDLE & HIGH SCHOOL

**STUDENT EXPERIMENT DESCRIPTION**

Our experiment seeks to analyze how the stratosphere is impacted by the Earth’s carbon footprint. We hypothesize that as the payload rises to the stratosphere, there will be an increase of the pollutants in the air. As a result of reports indicating that vaping is safer than cigarettes, vape usage has increased around the world. We are curious to understand how much the Earth’s carbon footprint will affect the ozone layer.