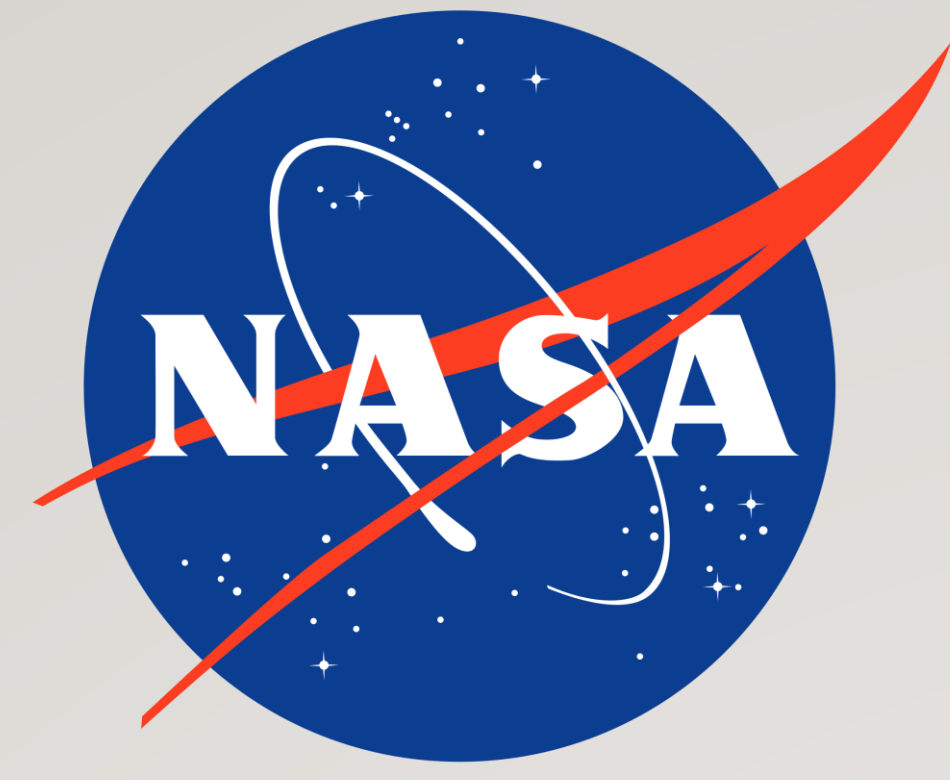


Working an Eclipse Balloon Campaign with Team Synergy

The project was over a period of 30 hours. For every 30 minutes, weather balloons were launched. Sensors attached to the balloons relayed atmospheric data to stations on the ground during eclipse events. The annular eclipse in October 2023 was observed from San Antonio. The total eclipse in April 2024 was observed from Petit Jean Mountain in Morrilton, Arkansas.



Team Building Experiences:

The San Antonio trip had remarkably less teambuilding experiences outside of the research. All photos below show different moments throughout the Arkansas trip where the team bonded and learned to coordinate to achieve a desired goal. These moments promoted flexibility and trust among the team.



Improvements in Organization:

The San Antonio trip was most of the team members' first weather ballooning campaign which is why it was likely less successful than the subsequent Arkansas trip. There was a lot of scrambling and chaos which led to the decision to do hourly launches. The first launch site was also shut down by local Texan air traffic control due to changing wind conditions. The team quickly found the second launch site at a truck shop resuming launches at 5AM. The Arkansas trip displayed much more structure and organization. The photos below show practices that were executed on the total eclipse trip.



Results:

The total eclipse trip netted 51 successful launches compared to the 20 launches during the annular eclipse trip. In addition, the every 30-minute launch time was more strictly kept.

Time	Temperature (C)	RH	Pressure	Wind Speed	Wind Direction
17:17:50	21.7	69.3	976	0.8	213.4



Time Slots	
5:00p - 9:30p	6:30a - 10:30a
Josef, Darion, Sheldon, Marcello, Sam, Collan	Bradley, Matthew, Joe, Ashley, Swift, Ms. Bivens, Amob Skylar
9:30p - 2:30a	10:30a - 2:30p
Darion, Sam, Marcello, Collan	Josef, Sam, Derrick, Darion, Skylar, Matt, Leah
2:30a - 6:30a	2:30p - 6:00p
Derrick, Joseiah, Bradley, Amob, Skylar, Matt, Leah	Amob, Collan, Skylar, Simon, Marcello

