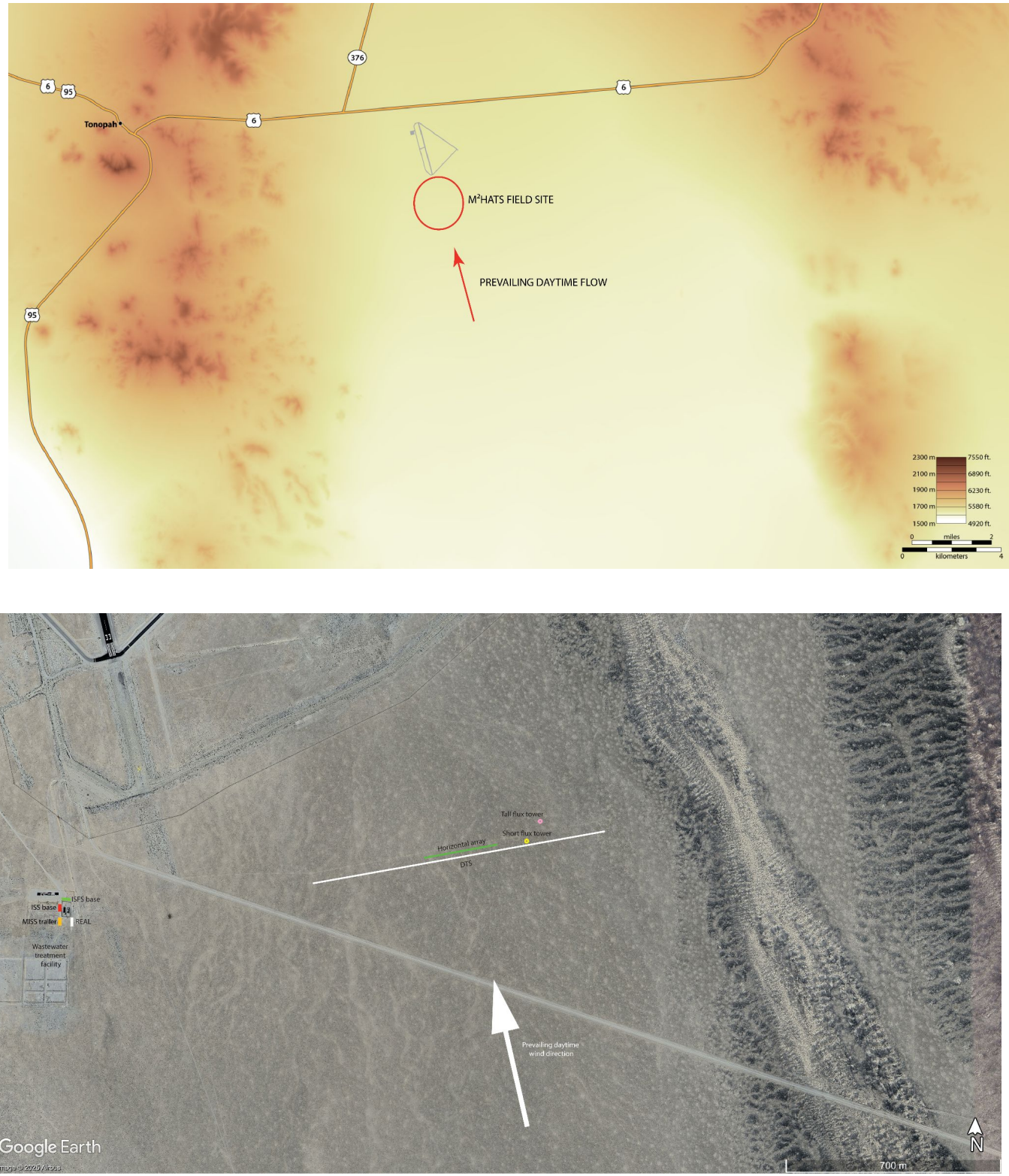


# Development of webpages to curate the M<sup>2</sup>HATS data set

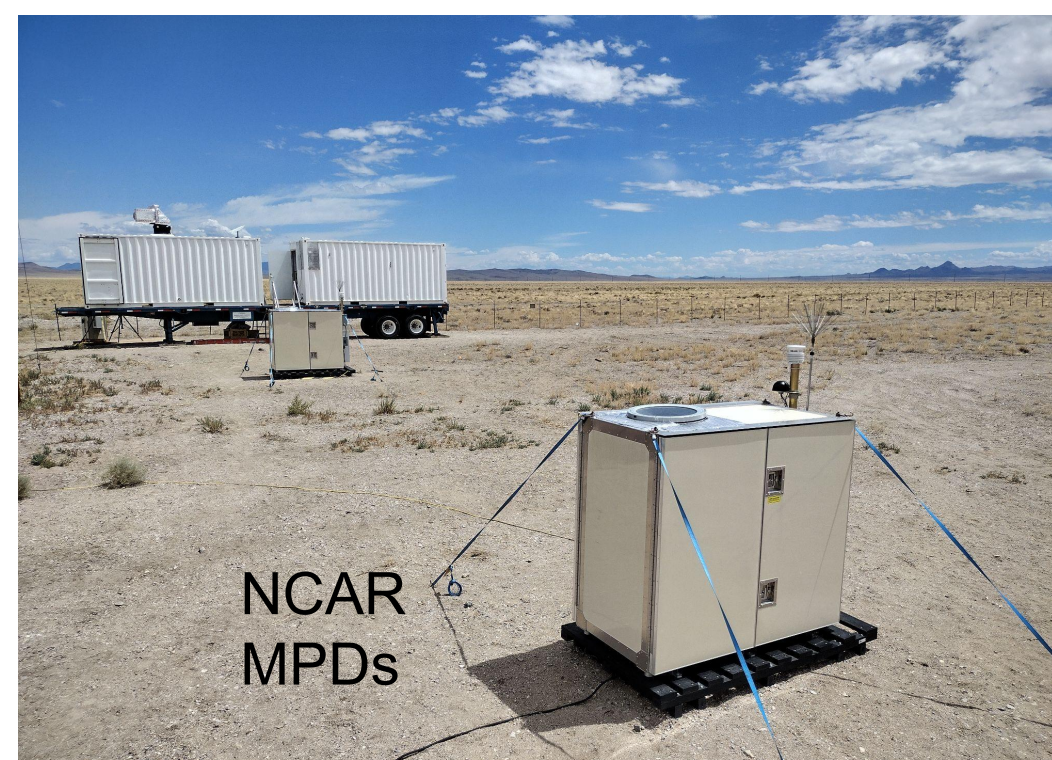
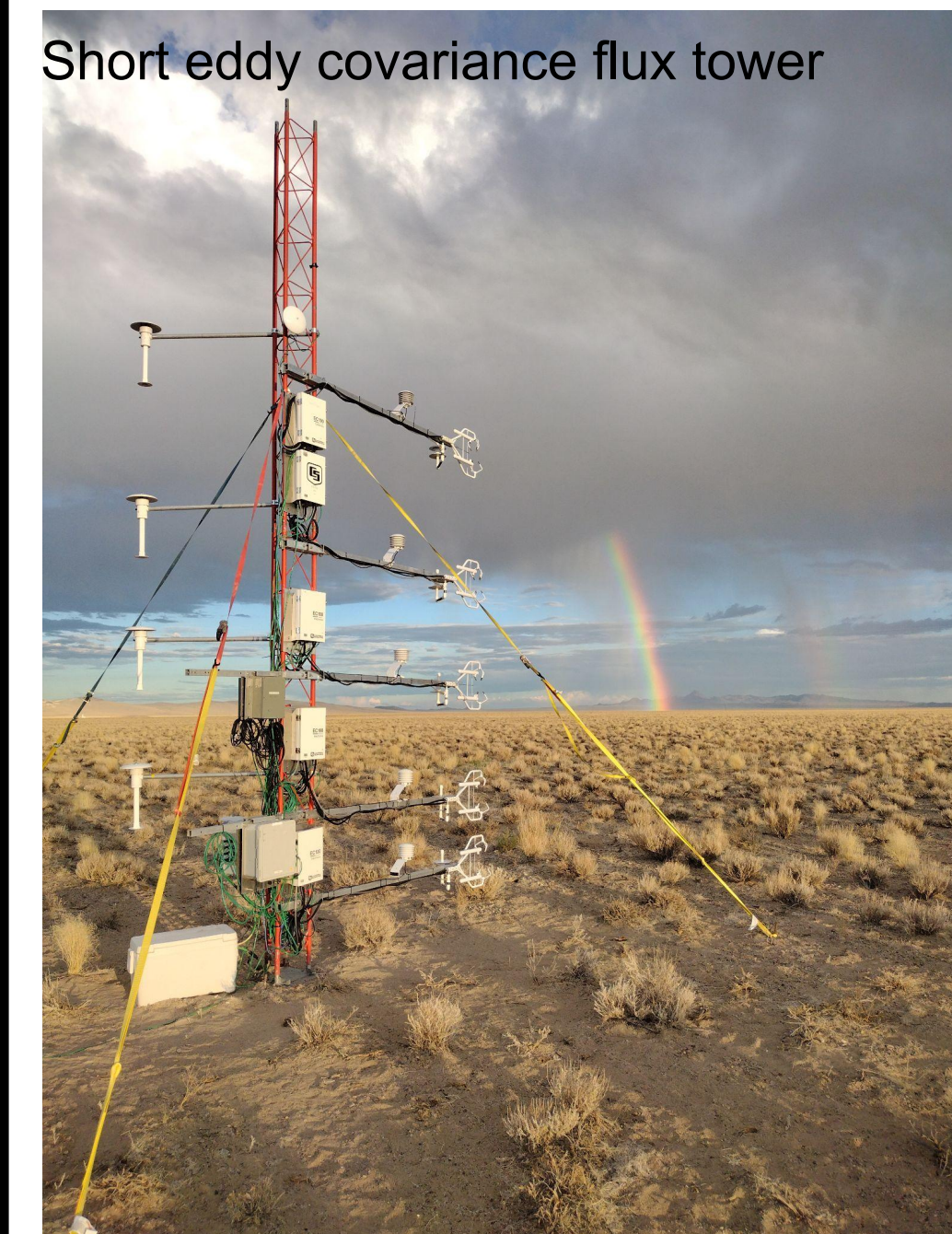
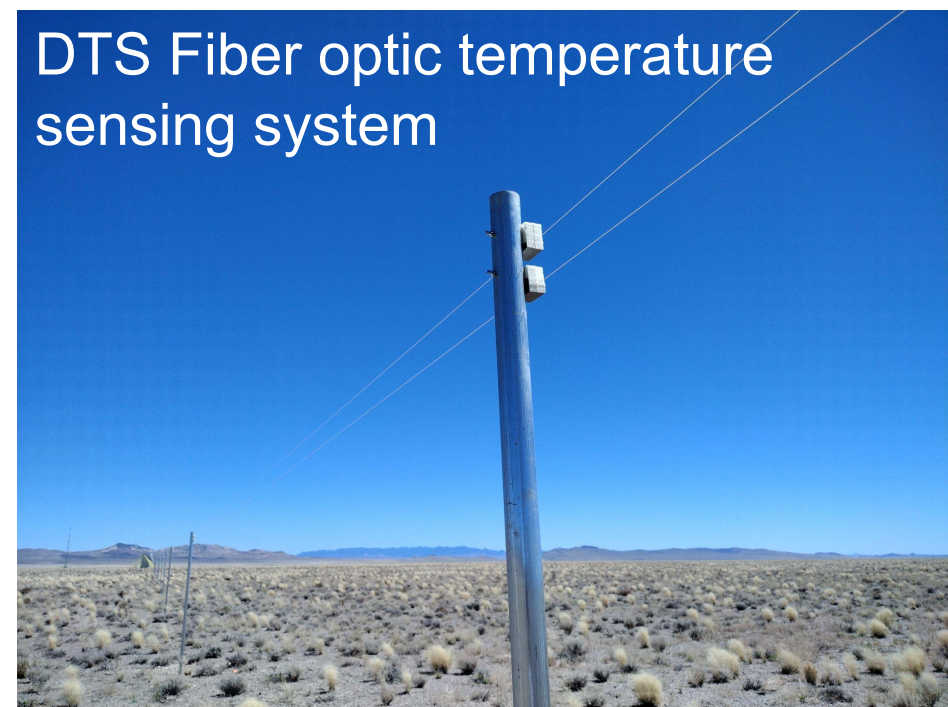
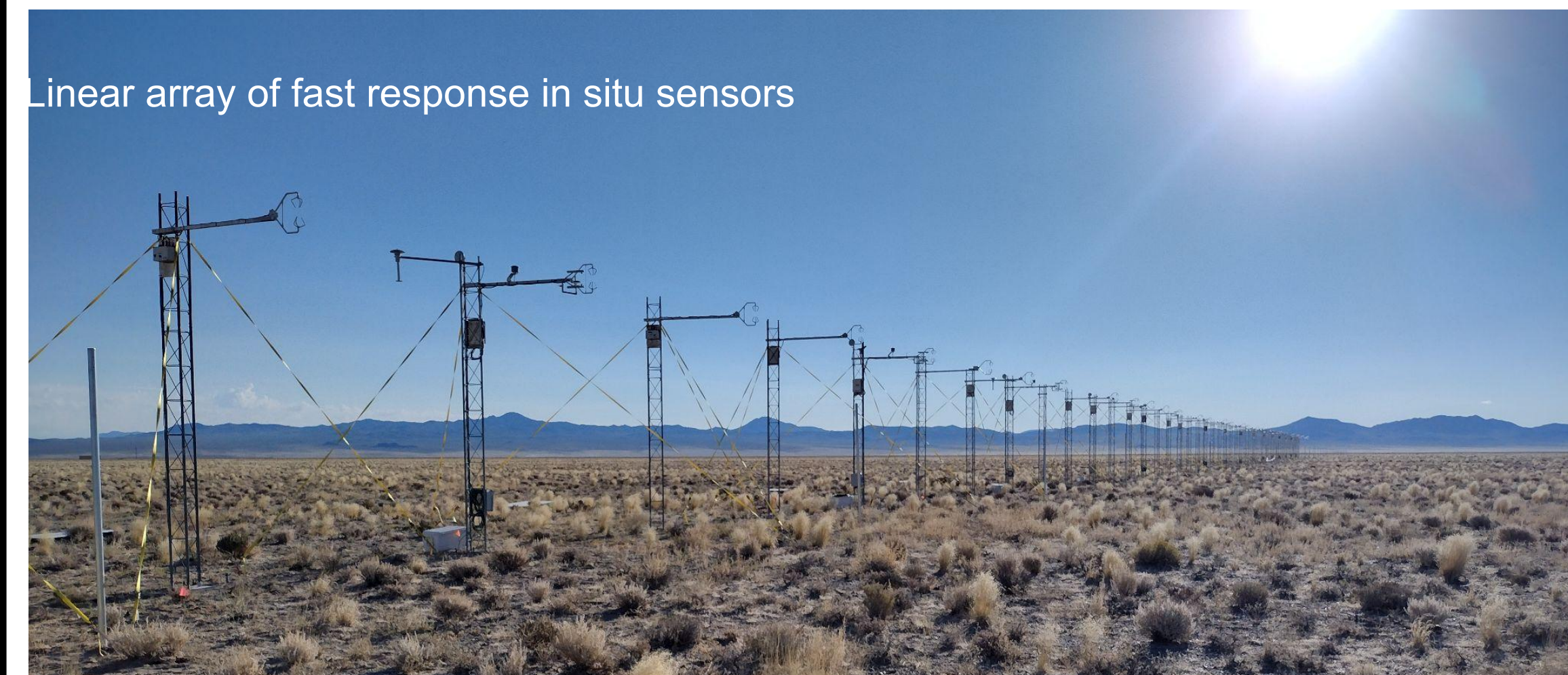
Kimberly Gonzalez and Shane D Mayor  
Department of Earth and Environmental Sciences  
California State University Chico

**Part 1:** M<sup>2</sup>HATS was an NSF-funded research field experiment conducted in from July to September of 2023 near Tonopah, Nevada, to collect atmospheric turbulence data to test a recently developed theory.

The project was conducted in a broad and flat, high desert valley to simplify the environment in which data were collected.



**Part 2:** Many meteorological observing systems were deployed at M<sup>2</sup>HATS. Below we show photos of some.



The project resulted in terabytes of data from 65 days of continuous observations.

(Not shown: 449 and 915 MHz Doppler radars)

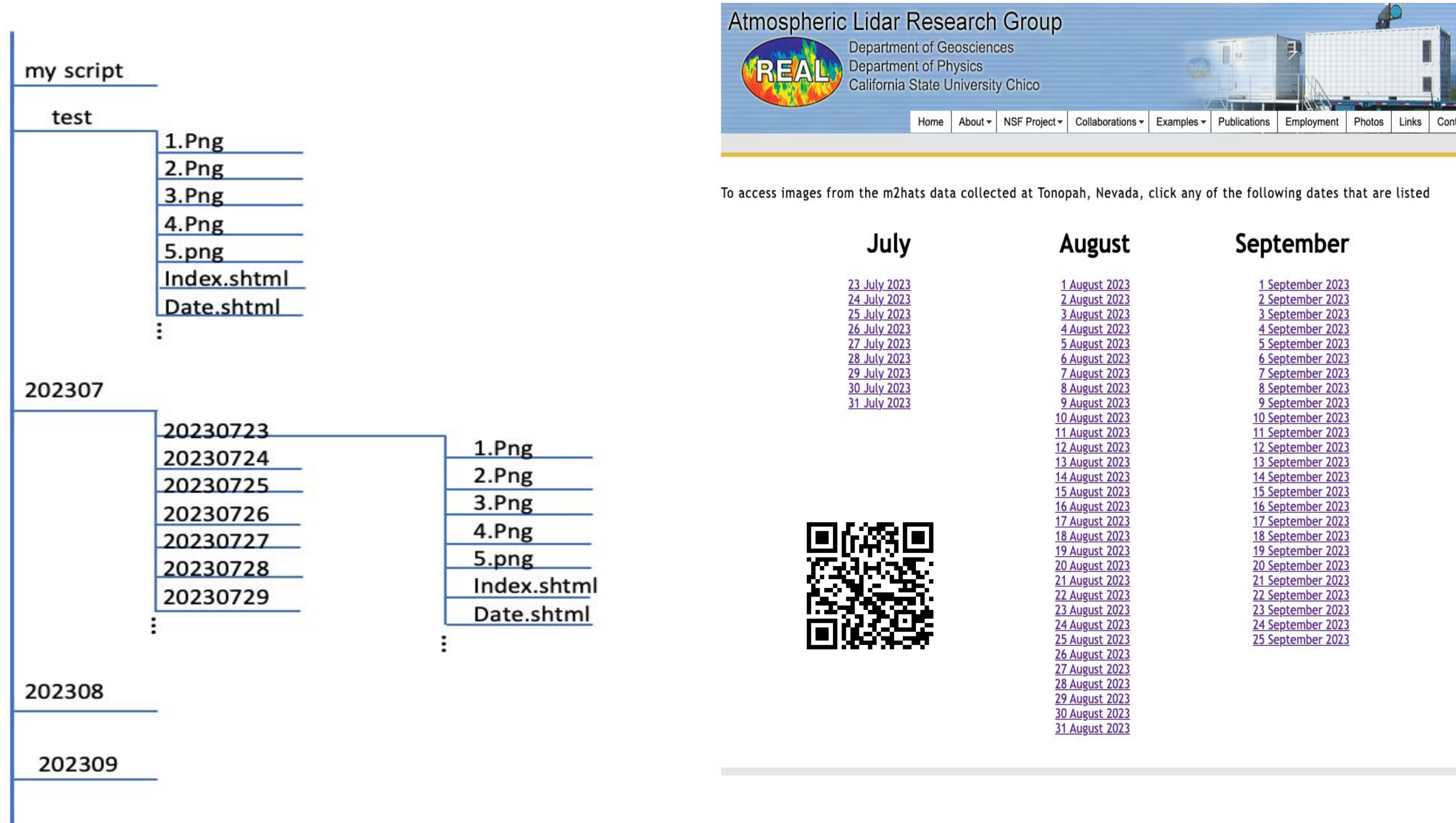
**Part 3:** Goal: Create a set of public web pages that curate the M<sup>2</sup>HATS data set images to facilitate the exploration and analysis of the data set by any scientist.

Objectives

1. Create one page per day of the experiment
2. Provide a consistent and fast presentation of data from each day
3. Minimize the number of custom web pages.
4. Host the pages on the Chico State Lidar Research Group server

Methodology

1. Create a test folder and a script to copy a single html file into 65 folders (one per day)
2. Include a custom date.html file in each folder and included it into the index.html
3. Rename the graphic files to consistent generic names. ex: 1.png
4. Edit the index.html in the test folder only to control layout of all 65 days



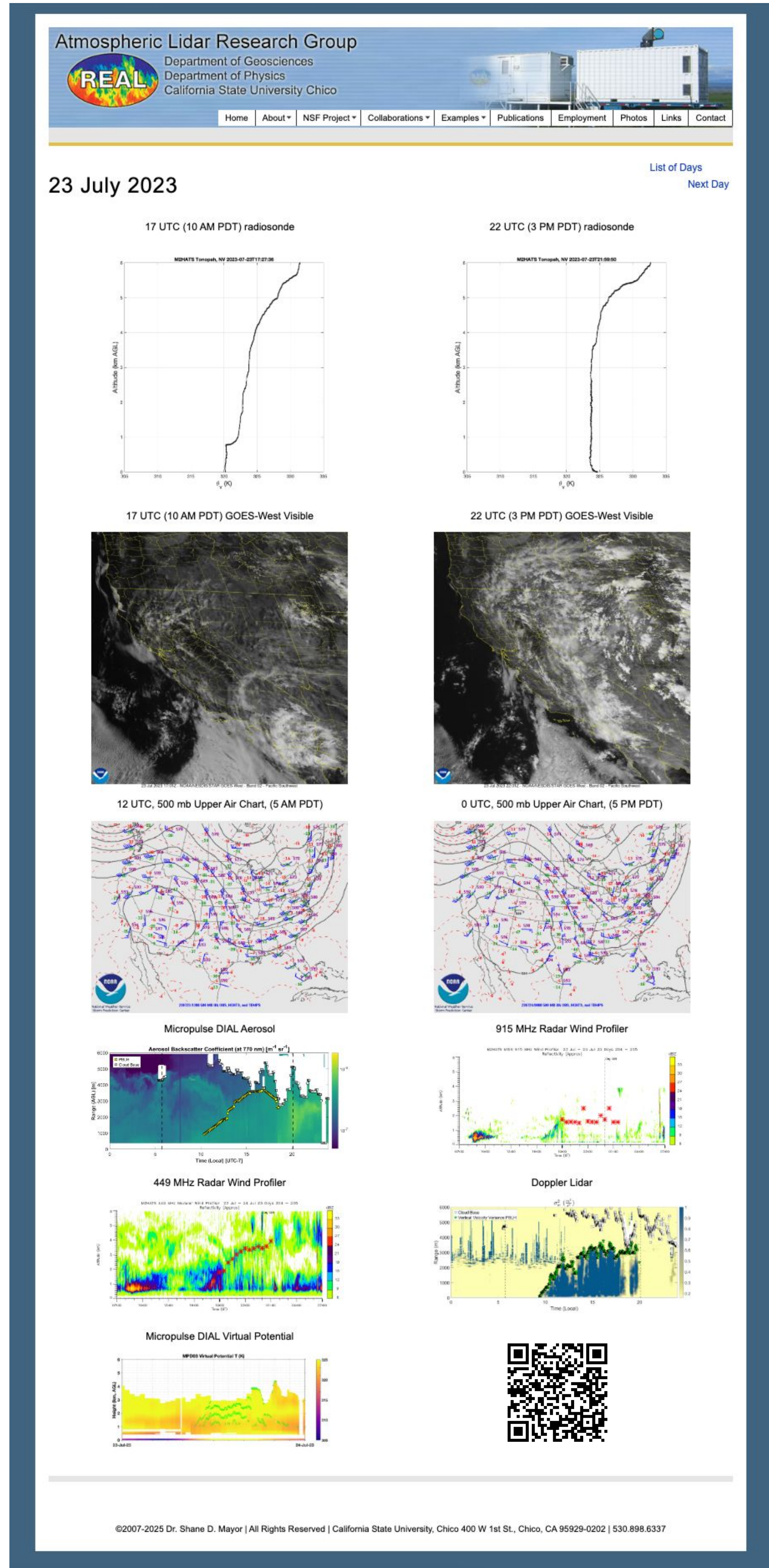
Script used to copy index.html into folders

```
my script
test
1.Png
2.Png
3.Png
4.Png
5.png
Index.shtml
Date.shtml
:
202307
20230723
20230724
20230725
20230726
20230727
20230728
20230729
:
202308
202309
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```

**Part 4: Results: Working public webpages**

Each daily webpage (see below) showcases graphs and images from various observing systems deployed at M<sup>2</sup>HATS. So far, we have included radiosonde soundings (2 per day, 10 AM and 3 PM local), GOES visible satellite images, 500 mb upper air charts (12 and 0 UTC), and full-day time-versus-height images from an NCAR micropulse DIAL, two vertically pointing radars, and one Doppler lidar.



**Part 5: Acknowledgements**

This work was supported by Adelante. We thank our collaborators from Montana State University and NCAR for providing data images. Also, NOAA for the satellite images and upper air charts.

**Part 6: Future work**

In the future, we will add additional products to the daily pages. These may include sky photographs, time-lapse animations from the REAL, and time-series data from the in situ sensors.