

Flight Designation: HAR210715 = HARbor yy mm dd

Flight Mission Details:

We will be flying a guest payload with cameras as our primary payload. (The Violin Mission)

The Science Mission:

- The ozonesonde/radiosonde will be on both the balloon and drone. The drone is limited to 400 feet at the start and end of the balloon's flight.
- We are also looking for evidence of ozone intrusion levels from the stratosphere working downward to the troposphere.

Equipment Testing:

- The MSA will be flying with very little to protect it. We want to do as much data logging as possible. At ground level the batteries last about 4 to 6 hours, it will be interesting to see what happens in flight.
- We are also testing the GoPro Max 360 camera system with external battery pack.
<https://gopro.com/en/us/shop/cameras/max/CHDHZ-202-master.html>

Target Flight Schedule:

Considerations:

Weather forecasts indicate that the best time to launch is mid morning. Our NOTAM allows us to launch 8:00 a.m. through 2:00 pm MDT. We will target approximately 9:00 a.m.

Wednesday:

9:00 a.m. Prep equipment for loading.

10:30 a.m. Load the HARBOR trailer

11:00 a.m. Leave WSU.

12:00 p.m. Lunch in Heber City

3:00 p.m. Arrive at the Duchesne Airport. We'll camp in the pilot's lounge or in tents/vehicles near the hanger. Start equipment prep and trailer unloading.

5:00 p.m. Trip to Pinn Willies or the grocery store for dinner or dinner supplies.

6:00 p.m. Dinner along with discussion of flight predictions and logistics.

7:00 p.m. Continue flight prep. Make sure all equipment is flight ready, tested, and prepared for launch. Secure everything for launch deployment before bed.

Thursday:

6:00 a.m. Wakeup call and breakfast. (Sohl will have picked up bagels the day before.)

7:00 a.m. Head to flight operations location and start flight prep.

9:00 to 10:00 a.m. Launch.

11:30 to 12:30 a.m. Landing and recovery mission.

1:00 p.m. Team lunch

2:30 p.m. Return to the airport to prep for the return home.

4:00 p.m. Base operations complete and trailer loaded start return trip to Ogden.

5:30 p.m. Dinner in Heber City.

8:00 p.m. Return to WSU. Unload the trailer and store all flight equipment. Return the trailer to the trailer yard.

9:00 p.m. Mission complete.

Team Planning:

Food:

Most of your main meals will be covered as part of the trip. You will want to have some cash/cards with you to buy snacks and drinks while on the road and during chase.

I strongly recommend that you bring some robust snacks with you for munching. Chocolate melts, make sure your snacks will survive abuse by both tossing them into vehicles and by heat.

We will have a toaster and coffee pot you can share.

Travel:

We will have three “official” vehicles: two campus SUVs (the “Mobile Mission Command” or “Millennium Falcon” and “Razor Crest” the Mandalorian’s ship) and the Sohl van (“Death Star”). You may choose to drive independently, but you are on your own for mileage and logistics. There is plenty of room in these vehicles.

Lodging:

We will be staying at the Duchesne Airport. There is a pilots’ lounge that you can sleep in. The lounge can be uncomfortably hot. The airflow in there isn’t great either. Most people prefer to sleep outside in a vehicle, bivi bag, or tent.

FORECAST FOR THIS TRIP:

Chance of scattered rain on Wednesday day, partly cloudy after that with chance of scattered thunderstorms Thursday afternoon. Highs in the upper 80s °F and lows in the mid 60s °F.

With that forecast the lounge might be comfortable. Personally, I’d bring a bivi bag.

There are NO showers.

We will be able to (neatly) leave all our gear at the airport while we are in the field. This includes spare clothes, sleeping pads, etc.

Clothing:

In the early morning it might be surprisingly cool. During the days it will be very hot with zero chance for shade! There maybe some rain.

- Light jacket, thin gloves, and a hat.
- Light colored loose clothing for daytime.
- Hat with a brim or large bill to keep the Sun off you.
- Comfortable shoes for hiking across the desert.
- If your light jacket is also a rain shell, that would be best. Some sort of light rain gear would be wise to have with you.

Personal Gear:

- Small daypack to carry your gear.
- Hydration bag that fits in your pack. Water bottles are not even close to being as good as a hydration bag system.

- Sleeping system: light sleeping bag or sack, sleeping pad (inflatable ones are best as they take up less space while in transit), small tent or bivi bag if you don't want to sleep in a vehicle or the lounge. Plan your accommodations among yourselves!! If all of you plan on sleeping in the SUV, that just will not work. Sharing a tent would be best, plan ahead.
- NOTE: There is limited room to haul lots and lots of camping gear. Inflatable pillows or a pile of spare clothes takes up less space than 12 full size pillows. Still, bring what you need to be comfortable.
- Personal travel stuff such as toothbrush, toothpaste, personal medications, etc.
- A multitool (such as a Leatherman tool) is extremely helpful to have with you all the time. A pocket knife is better than nothing.
- Headlamp. Your phone's flashlight just isn't enough.
- A way to charge your phone, computers, tablets, etc. We will have AC power available most of the time.
- Sunglasses.
- Lip balm.
- We have sunscreen in the trailer, but if you want higher quality stuff, then bring it. We have some bug spray in the trailer as well, but if you have something you prefer, then bring it.
- A GPS app for your phone for tracking the payload and hiking into the field is handy. The GaiaGPS app is good but most important is that you are familiar with the app you choose to use.
- A travel mug is handy in the vehicles and while at the airport.

Miscellaneous:

- No Alcohol or other recreational "medications."
- If you feel that you must carry a firearm, then plan on driving yourself. The team vehicles are just too crowded and dynamic to take the risk.
- Fire danger is high. No fires.