

HARBOR Flight Summary Data Sheet, Flight Designation (HARyymmdd): HAR 210715

Balloon: 1500 grams, Balloon Date: August 2018

Fill Ballast Weight: 18.8 pounds

Size of Tank #1:

Tank #1 Starting Pressure: 1150 psi; Ending Pressure: _____ psi

Flow meter reading at end of tank #1 usage: _____

Size of Tank #2:

Tank #2 Starting Pressure: _____ psi; Ending Pressure: _____ psi

Flow meter reading at end of tank #2 usage: _____

Size of tank #3:

Tank #3 Starting Pressure: _____ psi; Ending Pressure: _____ psi

Flow meter reading at end of tank #3 usage: _____

Total "psi used" _____ (Actual volume depends on tank size.)

Cylinder capacities if full: 200 tanks = 5663 L, 300 tanks = 8495 L

Cylinder volumes: 200 tanks = 43.9 L, 300 tanks = 49.8 L

Ideal gas law example: $V_2 = V_1 * (P_1/P_2) = 49.8 \text{ L} * (2500 \text{ psi}/12.27 \text{ psi})$

(12.27psi is ambient at 5000 ft)

Calculated volume from tank 1: _____ Liters

Calculated volume from tank 2: _____ Tank 3: _____

Total helium volume used: _____ Liters = _____ m³

Cut Down System. Design/Type = Page. See below for settings.

Parachute Description: Large Orange/White, 134-inches

Payload #1 Description:

GoPro Max 360 full surround video camera with external battery.

Payload #2 Description:

Guest Payload with cameras and violin.

LoJack tracking beacon.

Payload #3 Description:

Ozonesonde/radiosonde: Frequency = 403 MHz

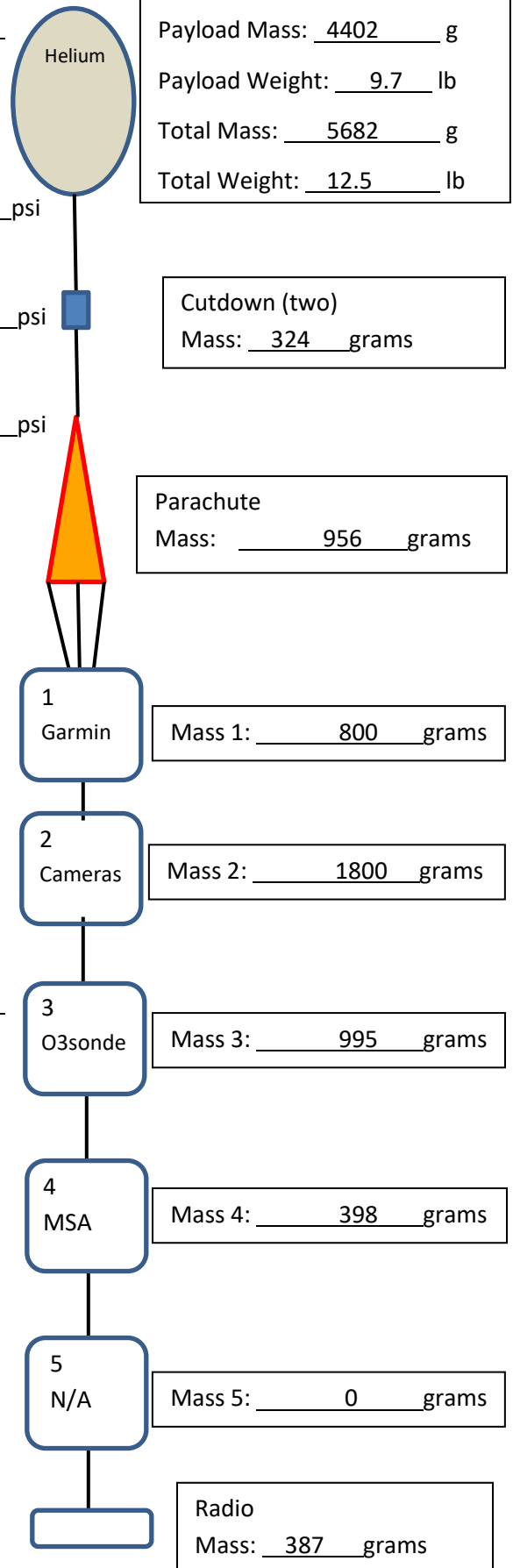
Payload #4 Description:

Multi-Sensor Array (MSA). 2nd test flight for version 2.0 in Rubbermaid housing. BATTERIES MUST BE SECURED.

Payload #5 Description:

N/A

RATS call signs KE7ROS-11 and KD7ICN-11



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Launch Site Location: Duchesne Airport (U69) , North: 40.1913 West: -110.3859

Arrival Time at Launch Site: _____

Launch site wind speed and direction:

Cloud cover and type:

Fill start time: _____ Fill stop time: _____ Total time for fill: _____ minutes.

Cut Down Flight Pin Pulled Time (start of timer) = _____

Cut Down Duration: _____ Estimated Cut Down Time: _____

Cut Down Terminal Altitude(s): _____

Approximate Balloon Dimensions at launch: Diameter: _____ meters, Height: _____ meters **Not meas.**

Launch Time: _____

Average Ascent Rate: _____ ft/min = _____ m/s

Burst Altitude: _____ ft = _____ m

Burst or Cut Down Time: _____

Landing Time: _____

Average Descent Rate: _____ ft/min = _____ m/s

Landing Location: _____ , North: _____ West: _____

Notes:

1. Say the following to the FAA:
"Flight level 180 (18K ft), Range X-nautical miles, Radial XXX degrees from MTU, magnetic"
2. Call at the following attitudes: 18K ft, 30K ft, 43K feet, then reverse direction when the balloon pops
3. FAA POC: AREA C (801 320-2362) and Area B (801 320-2563)

Maps (to be filled in post-flight):