

HARBOR Preflight Check List for Trailer Loading

Ground Support:

- Tool box
- Extension cords
- multi-outlet strips
- 12V to 120VAC inverters
- Gas generator
- Small red plastic gas can w/ fuel in can
- Two tables
- Garbage can
- Recycle can
- Broom
- Zip ties
- Small Parts Box
- Lawn chairs
- Tent stakes
- Coffee pot
- Toaster
- Food service: plates, utensils, napkins, etc.
- Solder kit w/box, soldering iron, soldering iron stand, 60/40 solder, flux paste, copper cleaner

HAM Radio Equipment:

- Two VX-8R handheld radios
- Three D710 vehicle radios each with 12V car power connectors
- Ham Radio Support box with cables, antennas, connectors, etc.
- Vehicle mount antennae for each D710
- USB GPS antennas for chase computer
- Screen for Raspberry Pi computer
- Fuses for each type of radio

Personnel Support:

- Water
- Snacks
- Ice chest (purchase ice in Duchesne)

PR Stuff:

- pins
- patches
- flyers

Expendables:

- Strapping Tape (narrow and wide)
- Duct Tape

- Clear Tape
- "Harmless Ham Radio" labels/tags
- AA Lithium Batteries (3 for each RATS (total =6), ___ for cameras, ___ for GoPros)
- 9V Lithium Batteries
- CR2032 button cell batteries for miscellaneous equipment such as the wind meter
- CR2354 Button Cell for Project Lifesaver Beacon
- LiPo Batteries
- LiPo Battery Charger
- String for between boxes
- Micro SD cards (blank--32KB 4 each)

Fill System:

- Tarp
- White and purple cloth sheets
- Nylon balloon cover "tarp" for launch
- Gloves
- Fill nozzles
- Fill hose
- Fill T hose with valves (built into trailer wall)
- Two gas regulators
- Large adjustable wrench for tanks
- One partial helium gas tank, we have three in Duchesne already.
- Ballast bag with ballast (use small water bottles)
- Ballast scale, heavy duty utility scale (DYMO 4040)
- Small mass scale for equipment (DYMO 5lb Postal Scale)
- Digital, handheld, spring scale (Muslrad, blue in cloth case)
- Compressed gas cylinder cart
- hose clamps for fill hose at nozzle, T, etc.

Balloons:

- _____ 200 gram
- _____ 600 gram
- _____ 900 gram
- _____ 1200 gram
- 2 1500 gram
- _____ 2000 gram
- _____ 3000 gram

Cut Down:

- Page Cut Down (2 each)
- Cut Down support box with spare heater wire
- 9 volt DC lithium batteries (Also noted above)
- Remove Before Flight Ribbon
- Housing
- Special melting string

- Checklist

Parachute:

- Red/White parachute with lines
- Four screw gate links
- Hoop
- Box of all spare parachutes

AtmoSniffer:

- AtmoSniffer
- 7.4 volt, 1100 mAhr LiPo battery
- 7.4 volt, 1000 mAhr LiPo battery
- Flight Box Housing
- Checklist

Still Cameras:

- Cameras
- Camera battery pack extension
- SD cards
- Checklist
- Camera flight box

Video Cameras:

- GoPro Cameras
- GoPro Max 360 camera
- GoPro Max 360 camera external battery pack
- GoPro Max 360 flight frame
- Camera battery pack extensions
- SD cards
- Checklist

Tracking:

- Two RATS (MT1000)
- SBATS programming cable (Byonics, Micro-Trak-AIO)
- all spare RATS
- Lithium AA batteries for SBATS (also noted above)
- LO-Jack (beacon)
- CR2354 Battery for LO-Jack(beacon)
- Beacon Tracking Radios and antennae (make sure batteries are charged check prior to preload into trailer/prelaunch)

Drone M600:

- M600 Drone w/batteries, power supply, flight controller all in travel case
- M600 drone spare parts/repair kit

Ozonesonde:

- Ozonesondes (2)
- Radiosondes (2)
- Laptop (Checklist is on laptop)
- Yagi antennas (2)
- Automated Tracking Antenna and D710
- Tripod
- Yagi antenna preamps (2)
- Batteries for preamps
- Kenwood Radio with power supply
- Kenwood Radio hand mic
- Cables and connectors to go from antenna to radio
- Audio cable to go from radio to laptop
- Ozonesonde support box
- Ozonesonde chemicals
- Weather station with humidity, temperature, pressure
- ARTIE automated tracking antenna system
- RF cables box