Command Module 1 Checklist
NS- 80

L-1day:

BITS (Bottom Plate)
- ✓ Confirm GPS configuration
- ✓ Confirm Transmission
- ✓ Confirm SD logging
- ✓ Confirm battery is charged, serial number: _011_, voltage: _~_ V

Habduino (Top Plate)
- ✓ Habduino serial number _14_
- ✓ Confirm habduino battery is charged, serial number: _010_, voltage: _8.30_ V
- ✓ Turn on radios, confirm they get GPS lock, confirm APRS packets are sent

Habduino (Bottom Plate)
- ✓ Habduino serial number _8_
- ✓ Confirm habduino battery is charged, serial number: _011_, voltage: _8.40_ V
- ✓ Turn on radios, confirm they get GPS lock, confirm APRS packets are sent

Cell Tracker (Top Plate)
- ✓ Confirm cell tracker battery is charged, serial number: _010_, voltage: _~_ V
- ✓ Turn on cell track, confirm it gets GPS lock, confirm text messages are sent
- ✓ Confirm positions are logged to SD

Equipment
- ✓ Confirm command kit is packed with:
  - ✓ Spare battery, serial number: _009_, voltage: _____ V
  - ✓ Spare habduino _012_
    - ___ Habduino serial number _____
    - ✓ Turn on radios, confirm they get GPS lock, confirm APRS packets are sent
  - ___ Spare empty micro SD card
  - ✓ MicroSD to SD card adaptor
  - ✓ USB-A to USB-B cable
  - ✓ USB-A to micro-USB cable
  - ✓ Spare mounting screws (x9)
  - ✓ Spare GPS antenna
  - ✓ Spare habduino antenna (x2)
  - ___ Spare LVC
  - ✓ Wrench (for SMA connectors)
  - ✓ Screwdriver (for balloonduino screw terminals)
  - ✓ Screwdriver (for mounting screws)
  - ___ Desiccants

Page Turn Over-->

Command Module Checklist
NS-_80_

Pre-Flight Checklist
Cell Tracker

- ✓ Tighten Cell Tracker GPS Connection
- ✓ Cell Tracker SD Card
- ✓ Tighten Cell tracker cellular connection
- ✓ Power connection
- ✓ Clear SD card

Habduino (Top Plate)

- ✓ Tighten Habduino GPS Connection
- ✓ Tighten 2M RF Connector (Out the back)
- ✓ Power connection

Habduino (Bottom Plate)

- ✓ Tighten Habduino GPS Connection
- ✓ Tighten 2M RF Connector(Out the front)
- ✓ Power connection

BITS

- ✓ Tighten Iridium Connection (bottom)
- ✓ Confirm GPS Configuration
- ✓ Clear SD card
- ✓ Power connection

Swithing Bottom to 009

both plates at 8.31v output

Systems Check
-Top Plate

- ✓ Top LVC Switched on
- ✓ Cell Tracker On
- ✓ Habduino On
- ✓ Receive Text from cell tracker
- ✓ Received Packets from Hab
- ✓ Place desiccants

-Bottom Plate

- ✓ Bottom LVC Switched on
- ✓ Habduino On
- ✓ BITS On
- ✓ Received Packets from Hab
- ✓ Received Packets from BITS
- ✓ Place desiccants

- ✓ Seal Box

Tracking/Communications

- ✓ Tracking Laptop
- ✓ Tracking Antennas
- ~~900s Ground station~~
- ✓ Radios
- ✓ Walkie-Talkies
- ✓ Wi-Fi hotspots
- ✓ Power Inverter
- ✓ Car magnets   — Power Strips
- ✓ Car battery

Recovery Vehicle:

Recovery

- ✓ Bow Saw
- ✓ Extension Pole
- ✓ Scythe
- ✓ Sling Shot
- ✓ Tarp (Small)

Kits/Buckets

- ✓ Recovery Bucket

Packing Checklist
Split Launch and Recovery
NS-80

Launch Vehicle:
- ✓ Inflation Equipment ✓ SD cards
- ✓ Balloons
- ✓ Helium tanks
- ✓ Tarp (Big)
- ✓ Parachute and Ring
- ✓ Command Module kit
- ✓ Broom
- ✓ Trash Bag
- ✓ Square Plywood Bases
- ✓ Scale for Measuring Payloads

Payloads
- ✓ Battery box
- ✓ Battery Charger
- ✓ Payloads
- ~~Spare LVCs~~
- ✓ Tyler's Weather Ground Station

Kits/Buckets
- ✓ BLT Bucket
- ✓ Inflation Bucket ✓ = Strings and Things
- ✓ Launch Kit
- ✓ Main tracking box
- ✓ Launch Solder Kit

L-0 Pre-Departure Checklist
✓ Conduct head count against van roster
✓ Signed waivers from all participants
___ Verify all convoy vehicles have Zello
✓ Radio check

L-0 Launch Site Checklist

Launch/Inflation Setup Checklist
✓ Pre-launch setup meeting (See PAO)
✓ Tarp setup (indicate full or half configuration)
✓ Place BLT in optimal launch location
✓ Indication direction of payload string from balloon
✓ Parachute-to-balloon lanyard configured
✓ Parachute and ring untangled
___ Command Module in place
___ Harmless payload stickers on each payload
✓ Payload string lined up and assembled

Pre-Inflation Checklist
___ *Hook lanyard from parachute around balloon neck before connecting to inflation tube*
✓ Tethers in place
✓ Brief 2 tether handlers (See PAO)
✓ Did Dr. Bowden call the tower? (See Dr. Bowden)
___ Balloon in BLT ready to go (See BLT Engineer)

Pre-Release Checklist
✓ Check payloads are ready
✓ Final communications check

Countdown & Release

___✓ Inform payload PoCs to hold payloads above the launch pad

___— Tether handlers ready

___✓ Slowly raise payload string

___⌐ Measure Total Free Lift = _____ (optional)

___ Countdown from 10 (Final Countdown Song Optional)

___✓ Release!

Release Time Mark = _____

L-0 Post-Launch Checklist

___✓ Ensure all materials are stowed in correct boxes/kit

___✓ Stow all materials in lab

___✓ Ensure vans are cleaned out

___✓ Download APRS logs from aprs.fi and upload to server

___✓ Remind payload designers to upload data to server

L-3 Day Checklist

[✓] Verify all payloads have submitted launch readiness forms

L-2 Day Checklist

[✓] Conduct ground track meeting
[—] Print van inspection forms
[✓] Create van position roster

L-1 Day Checklist

[✓] Pick up vans
[✓] Conduct van inspections (attach checklists)
    [✓] Van 1 (Callsign: _____)
    [✓] Van 2 (Callsign: _____)
    [✓] Van 3 (Callsign: _____)
    [✓] Van 4 (Callsign: _____)
[X] Inspect all payloads against payload requirements document
[✓] Charge batteries
    [✓] Portable car battery
    [✓] Wi-fi hotspot (AT&T)   ✓ Wi-fi hotspot (Sprint #2)
    [✓] Wi-fi hotspot (Sprint)
[✓] Verify AT&T hotspot is paid
[ ] Inventory launch supplies (checklists in respective boxes)
    [✓] BLT Bucket
    [✓] Inflation Bucket
    [✓] Recovery Bucket
    [✓] Launch Kit
    [ ] Main tracking box
    [✓] Launch Solder Kit
[✓] Verify completion of Command Module L-1 day checklist (attach checklist)
[ ] Pack (attach checklist)

Launch Director Checklist
NS-_80_

Launch Location: _Hancock High School_

Launch date: _11/14/18_

Payload Lineup:

Payload Name	POC Name	Passed Inspection	Inspector Initials
Command Module	Blaire W.		
TARS	Haylin O'N.		
HAPI	Zach B.		
QUIDDITCH	Sarah N.		
CHARM	Michael S.		
BOWSER	Christian O.		
TAPS	Blaire W.		
Area 51	Dale M.		

Balloon Size(s): ~~XXXXgms~~ 1600 g

Callsigns:

W3BAX-8, -14