

Launch Director Checklist

NS-67/68

Launch Location: Hagerstown Community College

Launch date: Saturday July 15th, 2017

Payload Lineup:

Helios Mini-Command

Command HTB-1

VIRDE SKY.0

TURTLENEST Space Plant

BOB'S BOX Space Pong

T.e.d. Filter

PHANTOM SKYNET

Water Balloon

SLAMPUNK

Balloon Size(s): 1600g x 2

Callsigns: W3EAX-8 † 12 NS-67

W3EAX-13 † 14 NS-68

- Command critical

- Charge Hot spots
- Charge car battery

Pre-Flight Checklist

Check Inventory of:

- BLT Bucket
- Inflation Bucket
- Recovery Bucket
- Launch Kit · hot glue gun
- Main tracking box

strings & things
- SWag in both vans

Launch Equipment

- Balloons
- Helium tanks
- Tarp (Big and Small)
- Parachute and Ring → Nassif
- Command Module kit
- Broom

Recovery

- Bow Saw
- Extension Pole
- Machete
- Scythe
- Sling Shot

Payloads

- Batteries (car battery)
- Payloads
- Soldering Iron & wire
- Spare LVCS

Tracking/Communications

- Tracking Antennas
- 900s Ground station
- Radios and GPS
- GPS receivers?

laptops

Water 5
4 PING
sky.0 3

✓ Magnets
- Tyler's Ground Station

- ✓ ~~igates~~ (move to main tracking box)
- ✓ ~~Radios/GPS~~
- ✓ 7 Walkie-Talkies
- ✓ 2 Wi-Fi hotspot(s)
- ✓ 2 Power Inverter(s)
- ✓ Power Strip(s)
- ✓ ~~Ratchet ties~~

SF-003

Launch Checklist

Launch/Inflation Setup

Hook lanyard from parachute around balloon neck before connecting to inflation tube.

- ✓ 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

- ✓ Tethers in Place
- ✓ Brief 2 tether handlers (See PAO)
- ✓ 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

- charge hotspots
- weigh tanks w/ caps
- trash bag

- _____ Tether handlers ready
- _____ Slowly raise payload string
- _____ Measure Total Free Lift = _____ (optional)
- _____ Countdown from 10 (Final Countdown Song Optional)
- _____ Release!

Release Time Mark = _____

Dr. Bowden Checklist

NS-____

Launch date: _____

Pre-Flight Checklist

- ____ Vehicle Rental
- ____ Helium Ordered
- ____ Print waivers

Launch Day Checklist

FAA Checklist

- ____ File NOTAM (6 hours prior)
- ____ Call NOTAM desk (866-225-7410 ext 9) to get NOTAM number:
NOTAM # _____
- ____ Call Washington Center (2 hours prior): 703-771-3470
- ____ Call HGR Tower (1 hour prior): 301-797-2039

BLT Engineer

NS-____

- ____ Brief 4 BLT anchors (see PAO).
- ____ Give instructions and gloves to volunteers.
- ____ Lay out BLT with inside facing up (Velcro side down). Immediately fold together to prevent moisture from getting inside the BLT.
- ____ Use broom to remove any excess particles.
- ____ When ready for inflation, place the balloon in the center with the neck facing one open end.
- ____ Fold around the balloon. The Velcro seam should be towards one side so it doesn't end up on the top when fully inflated.
- ____ Inform Launch Director that the balloon is ready to be inflated.

* Be wary of the balloon slipping out the side.

Public Affairs Officer Checklist

NS-67/68

Launch date: _____

Pre-Flight Checklist

Two Weeks Before

- ___ Send launch announcement
- ___ Tweet it!
- ___ Create Slack Channel
- ___ Create Zello Channel

Wednesday Before (or after Go/NoGo Meeting)

- ___ Send launch confirmation/postponement email
- ___ Tweet it!

Pre-Launch Checklist

- ___ Swag box
- ___ Flown turtles

Launch Day Checklist

Pre-Launch Meeting

- Everyone should have signed a waiver: new ones collected, sign-in sheet for other visitors
- Launch time goal: _____
- Ask for 6 volunteers – Direct to 4 to BLT Engineer and 2 to Launch Director
- Chase Vehicles will need to leave semi-immediately be ready to leave within 5-10 minutes of launch
- Everyone helps clean up, so we can get out efficiently
- People who are 'Nav's in each van/car should be in the Zello Channel

- Have short comms check (UMD NS-___)
- Make sure that no more than one person per van has Zello on

Post-Inflation

___ "Let the betting begin!"

___ "Betting is closed!" (at 20'000 ft)

Command Module 2 Checklist

NS- _____

L-1day:

Habduino (Top Plate)

- Confirm habduino battery is charged, serial number: _____, voltage: 7.3 V
- Turn on radios, confirm they get GPS lock, confirm APRS packets are sent

Cell Tracker

- Confirm cell tracker battery is charged, serial number: _____, voltage: 8.5 V
- Turn on cell track, confirm it gets GPS lock, confirm text messages are sent
- Confirm positions are logged to SD

Launch Day

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

Systems Check

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

Seal Box -