

Flight Director Checklist

NS-56

Launch Location = Clear Spring Elementary School

Launch Date = Saturday July 23, 2016

Attempt Number = #1

Payloads:

<u>Helios</u>	(1.7 lb)
<u>Cmd</u>	(4.5 lb)
<u>Boch's Box</u>	(2 lb) (2.5)
<u>Cloud 360</u>	(1.3 lb)
<u>IRFIVE</u>	(0.9 lb)
<u>GANONDORF (attached payload drop)</u>	(0.7 lb)
<u>Doves Pigeon</u>	(1.6 lb)
<u>Scorch</u>	(0.6 lb)
<u>HABscope</u>	(3.5 lb)

Comments:

well, oops...
we didn't go that far..

One Month in Advance:

- Vehicle Rental (check that outlets work)
- Helium Ordered
- HAM Radio Club notified about using UMD's call sign

Launch Week

Pre-Flight Planning Checklist

- Send the launch announcement email
- Create Zello station UMD NS-56
- Print waivers
- Preliminary weather check
- Preliminary ground track check
- Payloads determined and ordered
- Vehicles identified and configured for tracking

Pre-Flight Systems Checklist

- BLT Bucket (check Inventory) ✓
- Inflation Bucket (check Inventory) ✓
- Recovery Bucket (check Inventory) ✓
- Launch Kit (check Inventory)
- Balloons (2)
- Batteries (check if charged)
- Bow Saw
- Clean Up Bucket (Broom, Dust Pan, Garbage)
- Extension Pole
- Functioning Radios and GPS
- Helium
- Machete
- Parachute and Ring + Assembled Command Module kit
- Payloads
- Phone Chargers
- Power Inverter
- Scythe
- Sling Shot
- Radios/GPS
- Tarp (Big and Small)
- Tracking Antennas
- Van Keys

- soldering iron & equipment
- Spare LVCs
- Steve's climbing gear
- Test Zello (oops)

- Walkie-Talkies ^{2/3}
- Wi-Fi hotspot
- 900s Ground station

FAA Notification 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 301-797-2039 at 7am

Radios + Callsigns Checklist

- Command Module: W3EAX-8 W3EAX-12
- Main tracking van: _____
- Second tracking van: _____
- Specific payloads: _____
- _____
- _____

Others: _____

PRE-LAUNCH MEETING / PRE-LAUNCH DAY

Launch Confirmation/Postponement Email

Pre-Launch Meeting

- Everyone should have signed a waiver: new ones collected, sign-in sheet for other visitors
- Launch time goal: 8:00 am
- Assign/prepare for jobs (BLT, Comms, Nav, etc.)
- 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

Final Checks

- Waiver Check
- Weather Check
- Ground Track Check

Launch Day

On launch pad

- Parachute to Balloon lanyard configured
- Parachute and Ring assembled
- Command Module in place
- Payload string lined up and assembled
- Harmless payload stickers on each payload
- Payload string weighed: Necessary Free Lift = _____
- Antennas in place
- No sharp edges or weak links

Pre-Inflation Checklist

- Helium Tanks uncovered and regulator hooked up
- Hook lanyard from parachute around balloon neck before connecting to inflation tube!***
- Instructions and Gloves to BLT anchors
- Instructions given to tether handlers & tether in place
- Full payload string laid out and ready to go
- Balloon in BLT ready to go

Inflation

BLT Instructions: (Always use BLT!!!)

- Lay out BLT with inside facing up (Velcro side down). Immediately fold together to prevent moisture from getting inside the BLT.
- When ready for inflation, Place 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
- Designate people to hold BLT down. (At least 4 people)

Start inflating at max flow rate

Inflation Complete: Measure Total Free Lift = _____

Pre-Release Checklist

- Check payloads are ready
- Good final communications check

Countdown & Release

- All Payloads turned on
- Raise Stack above pad in full flight configuration
- Telemetry and Downlink good
- Tether handlers ready
- Countdown from 10
- Release

Release Time Mark = _____

Initial Heading of Flight = _____

Post launch (during chase)