

# Flight Director Checklist

NS-58

Launch Location = Hagerstown Community College

Launch Date = Sept. 17, 2016

Attempt Number = #1

2000g Balloon

<b>Payloads:</b>	✓	<u>Helios</u>	~ 6.75lb
	✓✓	<u>Cmd</u>	~ 4.5lb
	✓	<u>Cloud 360°</u>	~ 1.6lb
	✓	<u>Tyron (mini bath's box)</u>	~ 1.1lb
	✓	<u>Irene</u>	~ 0.8lb
	✓	<u>Scorch</u>	~ 0.7lb
	✓	<u>MARS</u>	~ 0.7lb
	✓✓	<u>Data Pigeon A</u>	~ 2.5lb
		<u> </u>	
		<u> </u>	

## Comments:

Drivers: Tyler B. Dale W. - All day

Michael walker - own } 6  
Liddy Vehicle } Seats

## 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-58*
- 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) *Ready*
- 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
- Soldering Iron & wire
- Sling Shot
- Spare LVCs
- Radios/GPS

- Battery for Mount looking
- Power strip

- Tarp (Big and Small)
- Tracking Antennas
- Tree Climbing Gear
- Van Keys
- Walkie-Talkies
- 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 # HGR09/006
- Call Washington Center (2 hours prior): 703-771-3470
- Call HGR Tower 301-797-2039 at 7am

### Radios + Callsigns Checklist

Command Module: \_\_\_\_\_

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: 8:00am
- 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
- Zello 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)**