**Flight Director Checklist**

**NS-65**

**Launch Location = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Launch Date = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Attempt Number = \_\_\_\_\_\_\_\_**

**Payloads:   Helios**

**CMD**

**VIRDE**

**Bach’s Box**

**TED**

**TurtleNest**

**PHANTOM**

**VR**

**Skynet (second balloon)**

**Comments:**

**-3000g for main payload string (1600g backup)**

**-800g for skynet string (skippy or 300g backup)**

**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

\_\_\_ 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) Size of balloon 1: 3000g Size of balloon 2: 800g

\_\_\_ Batteries (check if charged)

\_\_\_ Bow Saw

\_\_\_ Extension Pole

\_\_\_ Functioning Radios and GPS

\_\_\_ Helium

\_\_\_ igates

\_\_\_ Machete

\_\_\_ Parachute and Ring + Assembled Command Module kit

\_\_\_ Payloads

\_\_\_ Phone Chargers

\_\_\_ Power Inverter

\_\_\_ Scythe

\_\_\_ Soldering Iron & wire

\_\_\_ Sling Shot

\_\_\_ Spare LVCs

\_\_\_ Tie in complete Exempt payloads: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_ Tarp (Big and Small)

\_\_\_ Tracking Antennas

\_\_\_ 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 # \_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_ 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: \_\_\_\_\_\_\_
* 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 seem 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)**