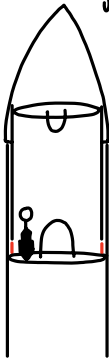
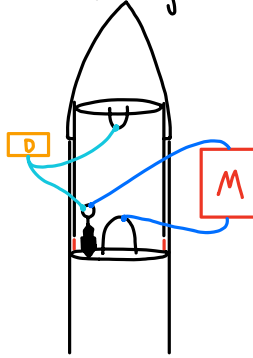


Packing

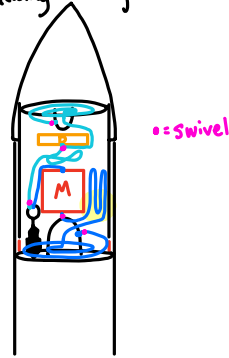
Hardware Diagram



Lines Diagram



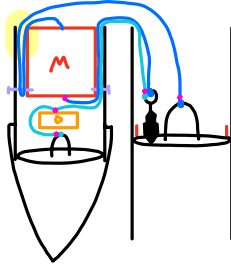
Packing Diagram



• = swivel

Timeline

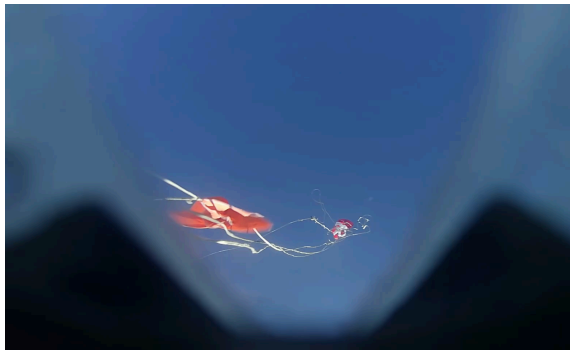
- 0:00 - Launch
- 0:28.7 - Apogee (Kate)
 - Piston Actuation
 - Nose Cone separates



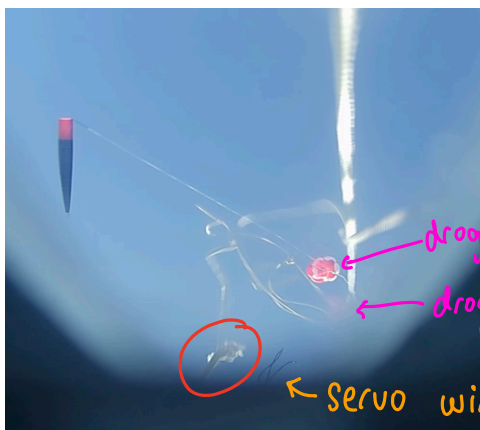
- Main bag gets caught on shear pins
- Both parachutes + bags in Nose Cone
- Main bag retention line keeps Nose Cone very close to MPT

- 0:31.73 - BP1 goes off
- 0:33.73 - BP2 goes off
 - Potentially melts abrasion tape on main retention line which causes it to fuse with Droque and Main MPT rises
 - More likely that the lines tangled and friction cause abrasion tape to melt slightly

- 0:46 - Droque first seen on video



- 0:46 - Sheared main line



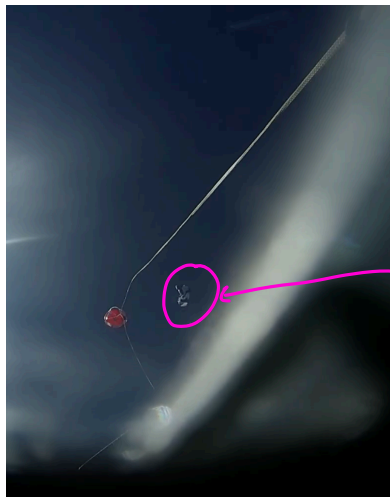
drogue

drogue bag

← servo wires

0:49 - Main flies away, drogue fully inflated

- Main MPT line sheared on lip of NC shoulder after separation (section where shear occurred)
- Main parachute flies away once deployed → never inflated while attached to rocket so sheared line occurred before main deployment



main parachute

0:50 - Rocket begins to stabilize

- Footage orients downward
- MPT oscillates



0:56 - Rocket is fully stable on drogue



2:28.59 - Tender Descender separates nominally

- NC and MPT remain on drogue
- Drogue and Main MPT lines tangling and fusing with Main Bay retention line caused MPT to remain attached to drogue after all hardware separated



2:41.9 - Drogue lands in free with NC, MPT impact the ground
• Drogue remains attached to MPT through landing