

# **Mission Plan**

## **Intern Space Program**

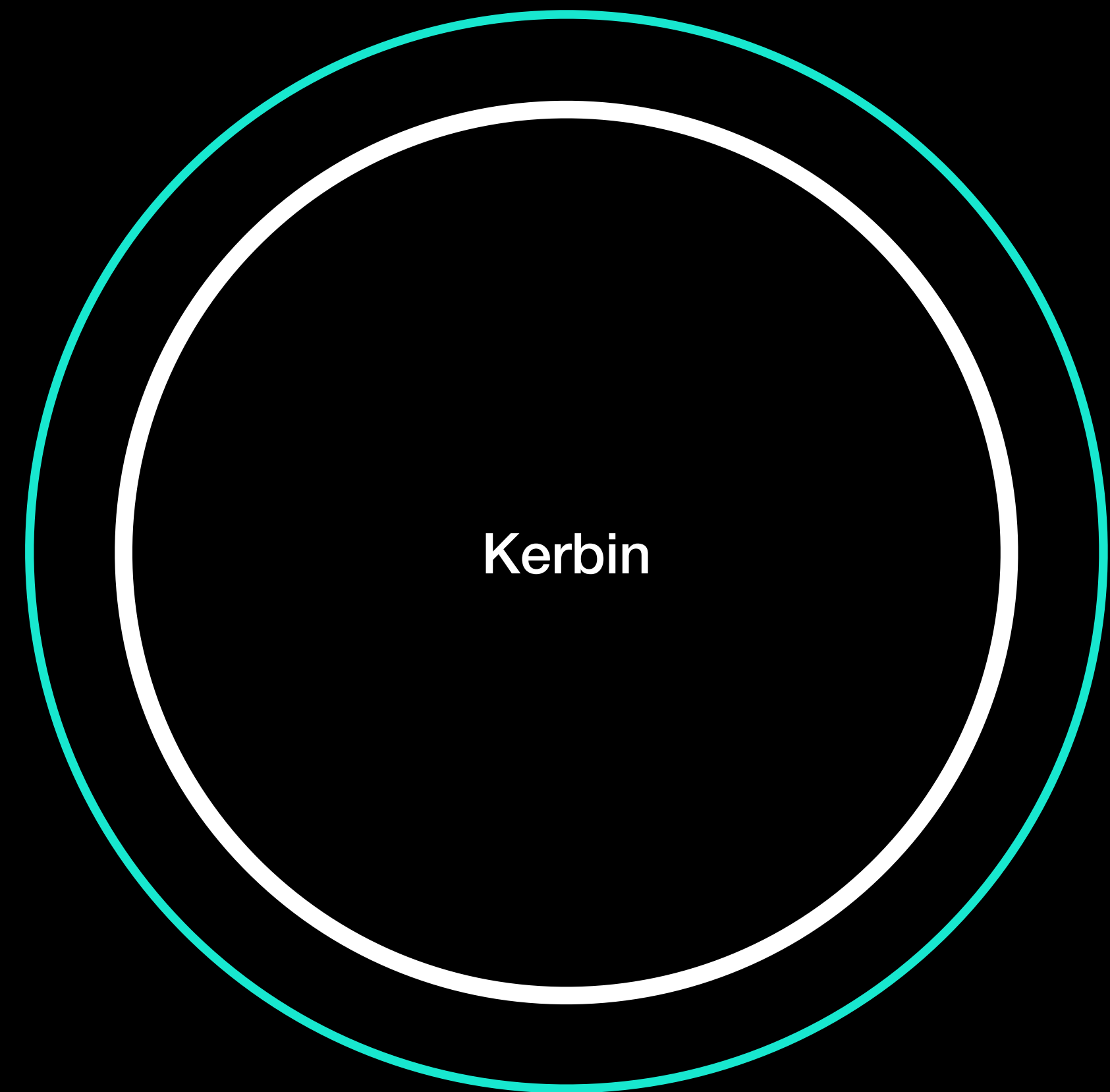
**Mike Bernard, 2020-06-24**

# Team Control Sequence

Sequence Number	Sequence Description	Controlling Team
1	Kerbin Ascent	Ascent/Entry
2	Orion Trans-Munar Injection	Orbit
3	Orion-Gateway RPOD	RPOD
4	HLS-Gateway Separation	RPOD
5	HLS Deorbit	Orbit
6	HLS Landing	Landing
7	HLS Ascent	Orbit
8	HLS-Tug RPOD	RPOD
9	HLS-Gateway Orbital Intercept	Orbit
10	HLS-Gateway RPOD	RPOD
11	Orion-Gateway Separation	RPOD
12	Orion Trans-Kerbin Injection	Orbit
13	Orion EDL	Ascent/Entry

# Kerbin Ascent

- Start:
  - Vehicle: SLS
  - Position: KSC Launchpad
- Finish:
  - Vehicle:
    - Orion CM/SM & ICPS
  - Orbit:
    - Body: Kerbin
    - Ap: 100,000 m [100 m]
    - Pe: 100,000 m [100 m]
    - Inclination: 0 deg [0.1 deg]

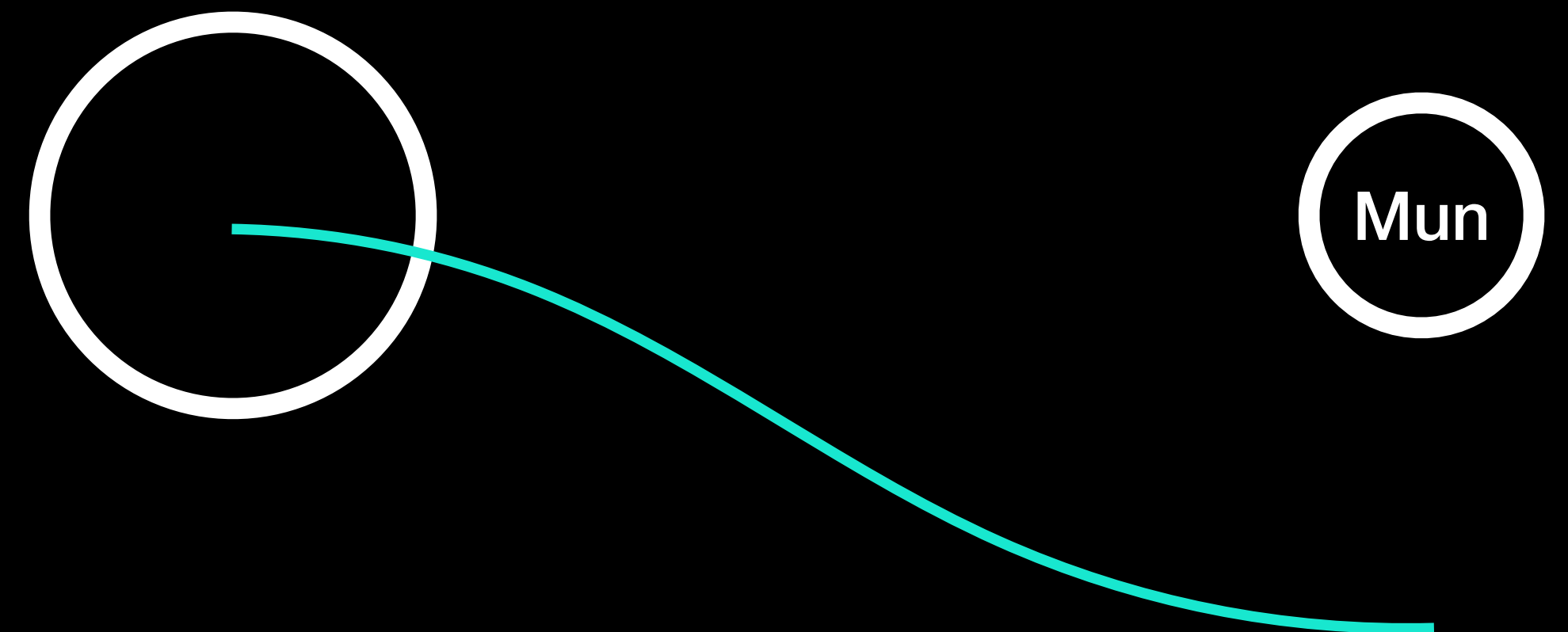


# Kerbin Ascent Event Sequence

Event Number	Event Description
1	RS-25 Ignition
2	Simultaneous SRB Ignition & Launch Clamp Release
3	Begin Gravity Turn
4	SRB Jettison
5	MECO
6	SLS Core Stage Separation
7	SES-1
8	SECO-1
9	Atmosphere Escape
10	SES-2 (Circularization Burn)
11	SECO-2

# Orion Trans-Munar Injection

- Start:
  - Vehicle: Orion CM/SM & ICPS
  - Orbit:
    - Body: Kerbin
    - Ap: 100,000 m [100 m]
    - Pe: 100,000 m [100 m]
    - Inclination: 0 deg [0.1 deg]
- Finish:
  - Vehicle:
    - Orion CM/SM
  - Orbit:
    - Body: Mun
    - Ap: 2,000,000 m [1,000 m]
    - Pe: 2,000,000 m [1,000 m]
    - Inclination: 90 deg [0.1 deg]



# Orion Trans-Munar Injection Event Sequence

Event Number	Event Description
1	Trans-Munar Injection Burn
2	Enter Mun Sphere of Influence
3	Correction Burn