Mission Design Review

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Mission - Recording sound of HEPTA during flight

- Human use many senses to sense our environment, but satellite sends only numerical data and photo.

- Numerical data is takes time for human to analyze. Photo takes time to be downlinked. Sound is easy to send and tells us more about satellite's current situation.

- MISSION: Analyze the activity of HEPTA during launch, deployment, and landing using a condenser microphone. The recorded sound will be sent at real time and stored to microSD.
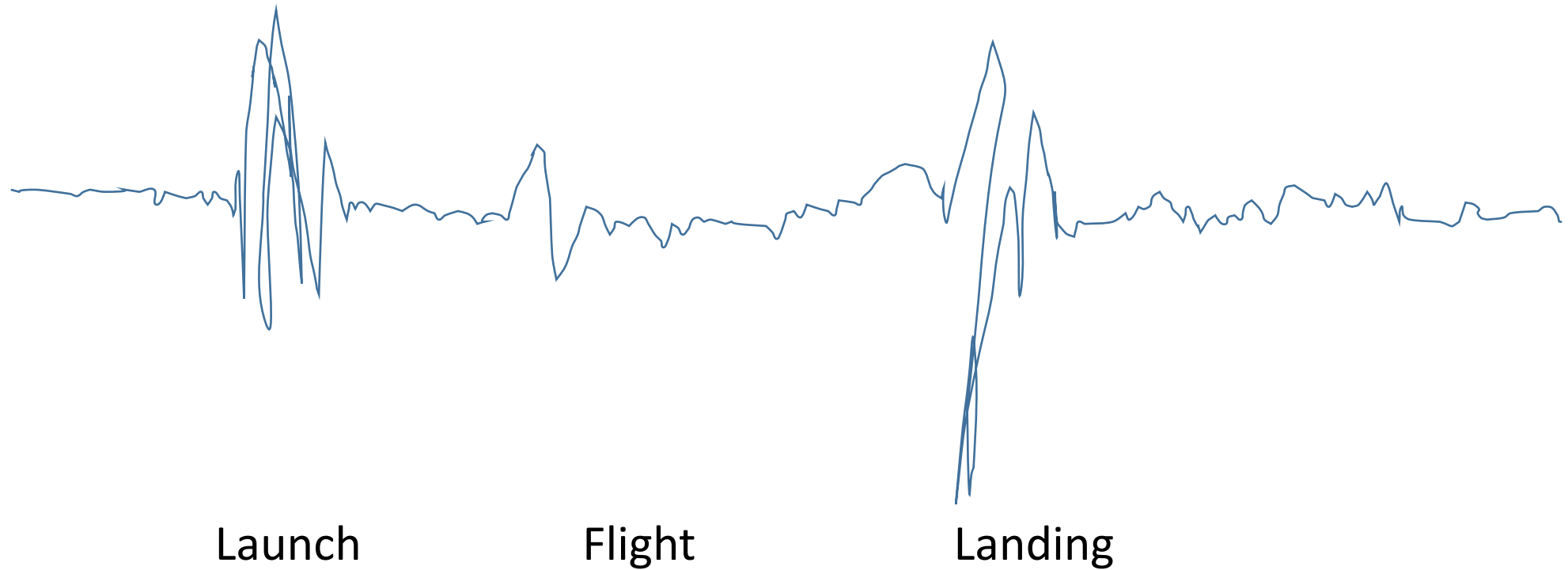
Criteria

- Minimum Success
  - Record the volume of sound only (non-audible; sampling rate 〜2000Hz).
- Full Success
  - Identify the point of launch, deployment, and landing from the acquired data.
- Maxiumum Success
  - Record and send audible sound of the whole launch sequence (sampling rate 4000Hz〜; c.f. phone uses sampling rate of 8000Hz).

Situation of Satellite can be analyzed from sound data.

Launch   Flight   Landing

Circuit