**SEE REFERENCE LITERATURE**

# Functional Analysis

Introduction of functions that sys must perform

* ADS functions
* ACS functions
* GNC functions

Difference between probe and orbiter

* Probe is limited to EDL only
* Orbiter primarily for on-station life

# Requirements

* Summary of requirements from baseline
* Update TBDs here
* Indicate if new requirements are added/ discovered
  + Maneuver rates
  + Slew maneuvers

# Calculations and model

Functional results:

* Actions based on heritage (MSL/ phoenix for entry, MRO for orbiter)
* GNC process (sense data with IMU, create estimation, transmit to earth, receive ephemeris data)
* ACS process

Process discussion:

* Describe flow chart
  + Key steps of this design phase
  + Inputs – action – output
  + Steps for later design phases
    - Control logic
    - Refined inputs
* Initial sizing based on heritage
* LOD to that of SMAD/ Elements (first order sizing)
  + Due to limited knowledge of required maneuvers and s/c geometry
* Sizing based on worst-case situations:

Model Limitations:

# Risk

# V&V

# Compliance matrix

Table of requirements that are met

# Recommendations