ACD Subsystem

Introduction/Summary

This is the section of the text to explain introduction and general descriptions, and other mother-hood materials (i.e. applicable documents, assumptions, etc..)
The introduction/summary is also a good place for:

1. Science objectives
2. Subsystem block and functional diagrams
3. Schedules
4. Summary of problems and concerns, including risk analysis

Requirements and compliance

This section should contain the flow down of specification, design overview, and objectives which includes the following:

1. Performance requirements and budgets
2. Electrical (power budget, EMI/EMC, data format, etc…)
3. Mechanical requirements (mass, dynamics, thermal, etc..)
4. Design verification
5. Software requirement (if applicable)

Mission sequence

This is the “how it work” section.

Functional description & interface

Describe each “major” components and respective interface.

1. Description of the interface requirement including layouts, mechanical & electrical or more detailed Block Diagrams
2. Power distribution and grounding
3. Design approach and trades

Component design

Detail description and trades for “major” components.

1. Heritage and design baseline
2. Modeling, test, and simulation
3. Component design verification
4. Reliability and redundancy
5. Parts selection & qualification
6. FMEA

Integration & test

This section should highlight the integration, test and verification of the subsystem.

1. Design verification, test flow and calibration/test plan
2. Producibility and manufacturing
3. Ground support equipment design
4. Contamination
5. Quality control, material and processes control
6. Safety

Appendix

Preliminary parts list
Reports of modeling and simulation
Test Reports