

# Detailed Report Content

| Sections                         | Section Definition   |
|----------------------------------|--|
| Executive Summary<br>(5 Pts)     | Maximum of 2 pages   |
|                                  | Summary description of selected design and why it best meets the mission               |
|                                  | Describe key mission requirements and associated design features                       |
|                                  | Format, completeness, readability  |
| Management<br>Summary<br>(5 Pts) | Describe the organization of the design team   |
|                                  | Chart of design personnel and assignments areas  |
|                                  | Milestone chart showing planned and actual timing of major elements                    |
|                                  | Format, Completeness, Readability  |
| Conceptual Design<br>(10 Pts)    | Describes mission requirements (problem statement)                                     |
|                                  | Translate mission requirements into design requirements                                |
|                                  | Review solution concepts/configurations considered                                     |
|                                  | Describe concept weighting and selection process and results                           |
| Preliminary Design<br>(20 Pts)   | Describe design/analysis methodology   |
|                                  | Document design/sizing trades  |
|                                  | Provide estimates of the aircraft lift, drag, propulsion and stability characteristics |
|                                  | Provide estimates of the aircraft mission performance                                  |
|                                  | <b>Provide estimated performance table</b>   |
|                                  | Format, Completeness, Readability  |
| Detailed Design<br>(35 Pts)      | Document dimensional parameters of final design  |
|                                  | Document structural characteristics/capabilities of final design                       |
|                                  | Document systems and sub-systems selection/integration/architecture                    |
|                                  | Document Weight and Balance for final design   |
|                                  | Document flight performance parameters for final design                                |
|                                  | Document mission performance for final design  |
|                                  | 3-View Drawing package   |
|                                  | Format, Completeness, Readability  |
| Manufacturing<br>(10 Pts)        | Document the process selected for major component manufacture                          |
|                                  | Manufacturing milestones chart: plan and actual  |
|                                  | Format, Completeness, Readability  |
| Testing<br>(15 Pts)              | Test Objectives and schedule   |
|                                  | Fail Safe Scenario, Test and flight check lists  |
|                                  | Describe the test performance of key subsystems  |
|                                  | Compare predictions, explain differences and improvements made                         |
|                                  | Describe the test performance of your complete aircraft solution                       |
|                                  | Format, Completeness, Readability  |
| Total Report Score: 100 Pts      |  |