# Group/project:

*Group 4 /* Austere Field Light Attack Aircraft

**PM/SE peer review provided by: Group 5**

This document contains the peer review grading sheet for the Systems Engineering and Project Management items addressed in the Design Synthesis Exercise as listed in the title.

Instructions for peer review

Please provide peer review towards the PM/SE aspects of the DSE reports of your peers, as allocated to you. Per deliverable / criterion, provide at least 1 tip (improvement suggestion) and 1 top (accomplishment).

**Consider the following guidelines (but addressing points beyond these guidelines is expected, especially for the deliverables not covered in these explicit guidelines):**

* Functional Flow Diagram (FFD)
  + Does the FFD adhere to standard formatting and syntax?
  + Does the FFD include functions in a logical sequence?
  + Does the FFD include functions to a sufficient level of detail for understanding the project from a functional point of view?
* Functional Breakdown Structure (FBS)
  + Does the FBS adhere to standard formatting and syntax (e.g. proper grouping of functions)?
  + Is the FBS sufficiently detailed (at least up to 3 levels)?
  + Does the FBS translate generic functions to DSE-specific functions (i.e., is the connection with the specific DSE mission statement made, including flow down to detailed functions)?
  + Are the common functions of different mission phases grouped together?
* Requirements Discovery Tree (RTD) & requirements tree
  + Does the RDT adhere to standard formatting?
  + Is there a complete specification of mission and system requirements (either in the RDT or in a dedicated list of requirements)?
  + Do the requirements adhere to the ‘requirements on requirements’?
  + Are the customer-provided (user-)requirements properly analysed, and, if need be, extended with requirements from the functional, market, risk and sustainability analysis?
  + Are sub-system requirements given, provided they affect the top-level system choices?
* Design Option structuring (tree) - DOT
  + Is / are the DOT(s) logically arranged?
  + Is / are the DOT(s) used to think broadly about design generation, i.e., does it include feasible as well as ‘blue-sky’ concepts?
  + Is the initial screening (= trade off) provided, and are the concepts that will enter the mid-term phase provided?
* Market analysis
  + Does the market analysis include stakeholder identification, market segmentation and initial size estimation?
  + Does the market analysis include competitor analysis (including SWOT and/or competitive positioning of the own product)?

**5 – Functional Flow Diagram(s)**

Tip:

Top:

**6 – Functional Breakdown Structure**

Tip:

Top:

**7 – Requirements Discovery Tree & Requirement Structuring**

Tip:

* Both LAA-AER-WNG requirements suggest solutions already. You could state that lift has to be generated, but not how.
* LAA-SUS-MAT-1.2, while very thoughtful, is not verifiable due to the vagueness of “to keep to a minimum”

Top:

* This is a good and complete set of requirements for this stage of the design.
* The link to airworthiness documents is a good way to avoid a hugely convoluted list of requirements.
* Overall well thought out and structured.

**8 – Technical Resource Budgets**

Tip:

Top:

**9 – Technical Risk Assessment**

Tip:

Top:

**10 – Design Option Tree(s)**

Tip:

* The order in which the DOT’s are presented is very different from the order of the corresponding explanation, making for a difficult read without proper guiding to the locations of the trees.
* Not all options are equally elaborated or explained. Some explanation are very detailed while others are just mentions of the option. You should balance this a little.
* The trees are not pruned to eliminate clear non-options.
* You should present more than one concept.

Top:

* The design option trees are very complete and clearly explained in text.
* The concept that is in the report is very well elaborated on.

**11 – Contingency Management**

Tip:

Top:

**12 – Market Analysis**

Tip:

Top:

**25 – Sustainable Development Strategy**

Tip:

Top: