

2003 CASI Project Concept

A project concept submitted to the OC-ALC TTA for funding consideration in CASI Program.

C/KC-135 Electrical Load Analysis (ELA) Evaluation

Submitted by:

Project Sponsor
Hamid Nikpoor
OC-ALC/LCRE
E-mail address
Phone Number

Technical Thrust Area Lead
Thomas J Ramsey
OC-ALC/LCR
E-mail Address
(405) 736-3064

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1.0 Background

The ELA's prepared for C/KC-135 fleet, were extracted from the original Boeing documents. Boeing documentation was based on theoretical values for equipment. The actual loads and locations of them were never verified. Every modification we add to the aircraft assumes that the ELA is correct and builds onto that baseline. We need to establish an actual baseline for future modifications.

2.0 Problem Statement

A methodology to evaluate loads on the C/KC-135 is needed for future modifications.

3.0 Anticipated Methodology/Tasks

Description

Review the documentation from C/KC-135 existing ELA documents and make determination for the validity of these documents.

Anticipated Major Tasks

Studies are as follows:

- Original ELA for E-Model aircraft, May 2001
- Original ELA for R-Model aircraft, Nov 1999

4.0 Anticipated Schedule

For the 2003 CASI program, the following schedules/periods of performance are allowed (you may wish to include this list and check all of the periods of performance that you would accept, i.e.):

- Execution and Completion of Project between June 1 and August 31, 2003.
- Execution and Completion of Project between June 1 and May 31, 2004
 - Executed as a single project, or
 - Executed in two or more phases with an intermediate set of deliverables and successful completion of the intermediate deliverables required before funding successive phase(s).

NOTE: CASI research phases will normally have completion dates that correspond to the academic researcher's semester schedule, i.e., August 15 or December 31.

- Execution and Completion of Project between August 15, 2003 and May 31, 2004

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- Executed as a single project, or
- Executed in two or more phases with an intermediate set of deliverables and successful completion of the intermediate deliverables required before funding successive phase(s).
NOTE: CASI research phases will normally have completion dates that correspond to the academic researcher's semester schedule, i.e., August 15 or December 31.
- Execution as the first phase of a multi-year project. NOTE: Due to funding mechanisms, only the effort between June 1, 2003 and May 31, 2004 can be funded by the 2003 CASI program. The project must produce a set of intermediate deliverables at the end of the 2003 funding cycle and funding of successive phases/years is contingent upon funding availability, project priority, and performance.

5.0 Anticipated Deliverables

The end result of the evaluation will be a methodology to evaluate electrical loads on the C/KC-135. A Final Report shall be submitted which includes the results as well as a description of any work associated with the project. A cost benefit analysis will be required and a final briefing will be held at the end of the project period. In addition, brief monthly status updates shall be submitted to the project manager for the purpose of project tracking.

6.0 Anticipated Benefits