

NEPA ENVIRONMENTAL CHECKLIST AND RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project/Program Name: WB-57 Aileron Project		
Project Number:	Project Start Date:	11/1/2009
Project FY: 2010	Completion Date:	12/31/2010
Location/Building No: NASA Ellington Field	Duration:	11 months
	Estimated Cost:	\$1.6MM
Project/Program Contact Name: CC411/ Shelley Baccus	Phone No:	x4-9807
	Email:	shelley.baccus-1@nasa.gov
JSC Environmental Office Contact Name: JE/ D. Hickens	Phone No:	x3-3120
	Email:	david.hickens-1@nasa.gov

The Project Manager must complete the following items with assistance from the JSC Environmental Office as needed:

- PART I: Description of Proposed Action
- PART II: Determine if the Action Qualifies for a CatEx
- PART III: Environmental Impacts Checklist
- PART IV: Review and Approval

PART I: Description of Proposed Action

1. Describe the proposed project or program (action):

The objective of this project is to perform Phase One to manufacture/refurbish 4 sets of ailerons to support operations & phase inspections for NASA's WB-57 high altitude research aircraft. Phase I includes Honeycomb Panel Procurement & Mfg, Trim Tab Procurement & Mfg, and Leading Edge Engineering. The manufacturing will be done at offsite subcontractor facilities.

2. Describe the purpose and need for the proposed action

Currently there is no source of spare or replacement ailerons for the WB-57 aircraft. The WB-57 is a heavy-lift, high altitude research aircraft. There are only two WB-57s flying in the world and both reside at Johnson Space Center. An aileron is a control surface located on the trailing edge of the wing that controls the aircraft in the roll axis. If the ailerons on either of NASA's WB-57 aircraft fail or are damaged, the aircraft down time required for repair would be unacceptable from an operations and schedule perspective. A similar delay to phase inspections would result

3. Attach a location map and a sketch/drawing for the proposed action.

PART II: Determine if the Action Qualifies for an Exemption

1. Determine if the proposed action meets one of the following criteria for a Categorical Exclusion (CatEx)* and check the appropriate category, if any.

Research and development activities in

- (a) Space science, other than specific spacecraft development and flight projects
- (b) Space and terrestrial applications, other than specific spacecraft development and flight projects
- (c) Aeronautics and space technology and energy technology applications, other than experimental projects that have the potential for substantial environmental impacts
- (d) Space transportation systems engineering and scientific and technical support operations, routine transportation operations, advanced studies
- (e) Enhanced space tracking and data systems

Facility planning and design (funding)

Minor construction of new facilities, including rehabilitation, modification, and repair

Continuing operations of a NASA installation at a level-of-effort, or altered operations, provided the alterations induce only social and/or economic effects but no, or minimal, natural or physical environmental effects

Internal modifications or equipment additions (e.g., computer facilities and relocating interior walls) to small structures or buildings

Ordinary maintenance or replacement of equipment or small structures (e.g., utility pole structures, microwave facilities, and valves)

Testing work (e.g., test borings or coring and water test wells)

Storage of non-hazardous materials (i.e., those that are not ammunition, explosives, pyrotechnics, radioactive, or other hazardous or toxic materials)

Routine repair and maintenance of buildings, roads, airfields, grounds, and equipment that do not increase or alter existing functions

2. Is the proposed action covered under an existing Environmental Assessment (EA)** or Environmental Impact Statement (EIS)***? If so, complete the following:

Name and Date of EA or EIS: NO.

3. Complete the following Environmental Impacts Checklist to verify that there are no unique or unusual circumstances that may require an assessment and to identify any permits, plans or other studies that may be required for the proposed action, even if it qualifies for an exemption.

*A category of actions that does not individually or cumulatively have a significant effect on the environment, that has no such effect in procedures adopted by a Federal agency in implementation of regulations, and for which neither an Environmental Assessment nor an Environmental Impact Statement is generally required. The JSC Environmental Office makes CatEx determination. Substantial environmental or cultural resource concerns identified during the planning phase at a CatEx action may indicate that an Environmental Assessment be completed regardless of category.

**A concise public document, prepared by the Project Manager (via an environmental contractor), that (1) provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding Of No Significant Impact (FONSI); (2) is proof of an agency's compliance with NEPA when no Environmental Impact Statement is necessary; and (3) facilitates preparation of a statement when one is necessary. The EA shall briefly describe the need for the proposed action, of alternatives to the action, the environmental impacts of the proposed action and alternatives, lists the agencies and persons consulted, and identifies regulatory requirements and mitigation required during implementation of the project or program.

***A document that is prepared by NASA HQ EMD for an action that may have significant impact on the quality of the environment or that has the potential for controversy in environmental effects. The primary purpose of an EIS is to provide full and fair disclosure of significant environmental impacts, and shall inform decision makers and the public of the alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment. An EIS is filed with the Environmental Protection Agency, published, and distributed widely for public comment.

PART III: Environmental Impacts Checklist

A "yes" response may require an Environmental Assessment or permits, plans, or additional studies. For assistance completing the Checklist, consult the JSC Environmental Office.

A.	Geology:	Yes / Maybe / No
a.	Will the project result in more than a 10% change in topography (slope) or ground surface relief features?	No
b.	Any increase in wind or water erosion of soils, either on or off site?	No
c.	Changes in deposition, siltation, or erosion that may modify the streams or waterways?	No
<i>Explain all "yes" and "maybe" answers:</i>		
B.	Air:	Yes / Maybe / No
a.	Will there be any air emissions or possible releases (e.g. CO, NO _x , O ₃ , Pb, PM, SO ₂ , VOC)?	No
b.	The creation of objectionable odors or smoke?	No
c.	Alteration of air movement, moisture, temperature, or any changes in climate, either locally or regionally?	No
d.	Will there be any combustion sources such as generators, backup generators, paint booths, parts cleaning, solvent cleaning or any other items that may require a Standard Exemption Air Permit?	No
<i>Explain all "yes" and "maybe" answers:</i>		
C.	Water, Wastewater, Storm Water:	Yes / Maybe / No
a.	Will the project result in surface water runoff (e.g. roofs, parking lots, covers) or change drainage patterns?	No
b.	Will the project result in storm water discharges?	No
c.	Will the project require storm water detention ponds?	No
d.	Will the project result in wastewater discharges (e.g. sanitary sewer or industrial operations and maintenance chemical waste)?	No
e.	Will the project have any discharges to the ground?	No
<i>Explain all "yes" and "maybe" answers:</i>		
D.	Cultural Resources:	Yes / Maybe / No
a.	Will the project affect any historical landmarks (e.g. B30 Control Center or B32 Vacuum Chamber)?	No
b.	Will the project alter a building that is 50 years or older?	No
c.	Is the project located in an area of suspected archaeological resources?	No
<i>Explain all "yes" and "maybe" answers:</i>		

E.	Biological Resources:	Yes / Maybe / No
a.	Construction/grading/filling within or adjacent to potential wetlands or areas with standing water?	No
b.	Construction/grading/filling within open space or grasslands area?	No
c.	Impacts to any threatened or endangered species and/or impact to any critical habitat?	No
d.	Impacts to any trees?	No
e.	Construction during bird nesting season?	No
f.	Introduction of new species or plants into an area, or impacts the normal replenishment of existing species?	No
g.	Propose new landscaping or modify existing landscaping?	No
<i>Explain all "yes" and "maybe" answers:</i>		
F.	Noise:	Yes / Maybe / No
a.	A noise increase greater than 10% from an existing operation?	No
b.	Exposure of people to severe noise levels (above 80 dBA)?	No
c.	Increase existing noise contours surrounding Ellington Field?	No
<i>Explain all "yes" and "maybe" answers:</i>		
G.	Land Use:	Yes / Maybe / No
a.	Substantial alteration of the present or planned land use?	No
b.	Interfere with the use or operations of existing facilities (e.g. construction of a noisy facility next to a facility that conducts sleep studies)?	No
c.	Impact any park or recreational area?	No
d.	Activities resulting in a change in total employment levels greater than 10 percent (More than 1,000 people)?	No
<i>Explain all "yes" and "maybe" answers:</i>		
H.	Hazardous, Toxic and Radioactive Materials and Wastes:	Yes / Maybe / No
a.	Acquisition, use or storage of any chemicals or toxic, radioactive or hazardous substance?	No
b.	Generation of medical (biohazard), hazardous, toxic, or radiological wastes?	No
c.	Generation of ionizing or non-ionizing radiation?	No
d.	Acquisition, use or storage of Class I ozone-depleting substances (CFCs, TCA, halons)?	No
e.	Use, disturbance or disposal of PCBs?	No
f.	Use of solvent cleaning stations?	No
g.	Use of pesticides, including insecticides, herbicides, fungicides or rodenticides?	No
h.	Installation or use of any chemicals or underground storage tank?	No
i.	Installation or use of any above ground storage tank?	No
j.	Use of any drum storage area?	No
<i>Explain all "yes" and "maybe" answers:</i>		

I.		Health and Safety:	Yes / Maybe / No
	a.	Risk of exposure to asbestos or lead containing materials in existing facilities?	No
	b.	Risk of exposure to medical (biohazard), hazardous, toxic, or radiological materials?	No
	c.	Require any confined space entry?	No
<i>Explain all "yes" and "maybe" answers:</i>			
J.		Construction Activities:	Yes / Maybe / No
	a.	Will construction activities disturb any soil?	No
	b.	Will there be any backup generators or air emissions during construction?	No
	c.	Will there be any chemicals or chemical products and/or hazardous materials stored on-site during construction?	No
	d.	Will there be any dewatering activities during construction?	No
	e.	Result in the exposure or disturbance of contaminated soil or groundwater near ESTA, B9, B222?	No
<i>Explain all "yes" and "maybe" answers:</i>			
K.		Transportation/Circulation:	Yes / Maybe / No
	a.	Generation of substantial vehicle trips (over 620 per day)?	No
	b.	Affect existing parking facilities or demand for new parking?	No
	c.	Substantial impact upon existing transportation systems?	No
	d.	Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	No
<i>Explain all "yes" and "maybe" answers:</i>			
L.		Services & Utilities:	Yes / Maybe / No
	a.	Require energy? How much (e.g. high energy consumption due to type of equipment or operations)?	No
	b.	Require water? How much (e.g. large consumption due to type of operations such as cooling)?	No
	c.	Affect or result in need for new or altered fire protection services (e.g. use/storage of flammable materials or is there a high risk of fire due to the type of operations)?	No
	d.	Affect or result in need for new or altered security services?	No
<i>Explain all "yes" and "maybe" answers:</i>			
M.		Environmental Justice:	Yes / Maybe / No
	a.	Does the project have the potential to disproportionately affect low-income populations or minority populations in the surrounding areas?	No
<i>Explain all "yes" and "maybe" answers:</i>			

PART IV: Review and Approval

This part is completed by the Project Manager, in consultation with the JSC Environmental Office.

1. Based on the information above, the proposed action (check A or B)

A. will not require an EA because the proposed action is:

- adequately covered in an existing EA, or EIS, or
- qualifies for a Categorical Exclusion and has no significant environmental impact, as documented by the checklist in Part III.

List any necessary environmental permits, plans, studies or other activities that will be necessary prior to, or during the project to ensure compliance.

- air permits
- hazardous, toxic, radioactive waste permit modifications
- storm water pollution prevention plan modifications
- sedimentation and erosion controls
- spill prevention control, and countermeasures (SPCC) plan modifications
- wastewater collection and management
- other:

B. will require an EA.

Describe at least three reasonable alternatives for the proposed action with one alternative being the "no action". Include reasons for selecting your preferred alternative. The environmental consultant will evaluate these alternatives during the EA.

(ie: the facility could be located at a different site but the research staff would not have access to other needed facilities OR the facility could be constructed with a different orientation to avoid a drainage swale but will not allow for the necessary square footage for research facilities)

Jointly Approved By:

Name: David Hickens
(Person Completing this Checklist if Other than Project Manager)

Signature: DAVID HICKENS

Date: 11/23/2009

Phone: x3-3120

Name: Shelley Baccus
(Project Manager)

Signature: SHELLEY BACCUS

Date: 11/24/2009

Phone: x4-9807

Name: David Hickens
(JSC Environmental Office)

Signature: DAVID HICKENS

Date: 11/23/2009

Phone: x3-3120