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|  |  | ***Acquisition Management System Guidance*** | |
| **Business Case Template for**  **(Name of Proposed Facility Upgrade Investment)**    **July 2017** | | |  |

Federal Aviation Administration

800 Independence Avenue SW

Washington, DC 20591

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| --- | --- | --- | --- |
|  |  | **Federal Aviation**  **Administration** | |
|  |  |  | |
|  |  | (Date) | |
| Final Business Case  for **(Name of Proposed Facility Investment)**  Enterprise Architecture Roadmap Statement # | | |  |

Approved by: Date:

Vice President (ATO) or Director Non-ATO) of

Sponsoring Service Organization or Line of Business

Contact Point

*Name*

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**APPENDICES**

Appendix A: Business Case Analysis Team Members

Appendix B: References

**SUPPORTING DOCUMENTS**

Shortfall Analysis Report

Facility Execution Plan (Project Level)

Life Cycle Cost Estimate

Cost Basis of Estimate

*The business case for a facility upgrade initiative is developed during final investment analysis using this template and instruction which may be tailored by the IP&A Business Case Review group. Requests for tailoring should be made very early in final investment analysis.*

*All guidance documents cited in this template can be found on the IP&A website at* [*www.ipa.faa.gov*](http://www.ipa.faa.gov) *or the FAA Acquisition System Toolset website at http://fast.faa.gov*

**EXECUTIVE SUMMARY**

*Summarize the key information in this document, highlighting those elements that are most relevant to the Joint Resources Council when making the final investment decision. Include the following: A brief summary of the operational shortfall or opportunity; a brief description of the proposed investment; a summary of the cost, schedule, and risk analyses; and the impact on FAA operational capability if the investment is delayed or not funded.*

# InVESTMENT DESCRIPTION

*Briefly describe the current facility and the proposed upgrade initiative.* *Summarize the benefit that will be obtained. Break down the investment initiative into key upgrade projects or activities. Use this breakdown as the basis for the cost analysis in section 4.1.*

# Problem statement

*Briefly describe the operational shortfall this facility upgrade is intended to address by updating the information in Section 1 of the Final Shortfall Analysis Report produced during concept and requirements definition. Explain why the current facility does not support the future operational environment. Express the information succinctly so busy executives can quickly understand the need for the initiative.*

# ****Assumptions****

*List the key assumptions and conditions having major influence on this business case analysis and its conclusions. The list should include as a minimum:*

* The assumed remaining service life and disposition date of the existing facility
* The assumed required implementation date for the proposed investment
* The assumed service life of the proposed investment
* The future operational environment

*See “Business Case Analysis Guidance, Appendix B” A on the IPA website at* [***http://www.ipa.faa.gov***](http://www.ipa.faa.gov) *for a definition of assumptions, constraints, and ground rules.*

# Business Case Analysis

*See Business Case Analysis Guidance, Appendix A, Table A-1 for analysis requirements by ACAT.*

## Cost Analysis

*Use the table (or appropriate variation) below to summarize the lifecycle costs for the facility upgrade initiative (does not include the cost of operating the current facility). Break down costs by individual project or activity defined in Section 1. Briefly summarize the cost analysis conducted to generate high-confidence, risk-adjusted lifecycle cost estimates. Reference the Lifecycle Cost Estimate and Cost Basis of Estimate from which these values were derived.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Facility Project Descriptor** | **F&E Cost** | **OPS Cost** | **Total Cost** |
| Project 1 |  |  |  |
| Project 2 |  |  |  |
| Project ‘n’ |  |  |  |

*Define a range of funding options that could address the operational shortfall. Briefly describe in the table below what is included in each option and the total cost.*

|  |  |  |
| --- | --- | --- |
| **Funding Option** | **Description** | **Total Cost** |
| 1 |  |  |
| *2* |  |  |
| *“n”* |  |  |

## Schedule Analysis

*Provide a risk-adjusted implementation schedule and key milestones for the proposed investment initiative in graph, table, or network format. Briefly explain the assumptions and analysis on which the schedule is based.*

*See “Guide To Conducting Business Case Schedule Evaluations” found on the IP&A website at* [***http://www.ipa.faa.gov***](http://www.ipa.faa.gov)*.*

## Risk and Sensitivity Analysis

### Risk Analysis

*Risk analysis is an objective assessment to determine the probability of an undesirable event occurring during implementation and the significance of the consequence of the occurrence. It is a process in which a group of programmatic, technical, and analytical specialists review the cost effectiveness analysis, as well as supporting ground rules, assumptions, and the basis of the estimates. If the analysis indicates an undesirable event may arise, the potential impact(s) resulting from such an occurrence is evaluated. At a minimum, the areas of risk to be analyzed are: costs, benefits, schedule, and technical. For identified risks, mitigation techniques are devised and their estimated costs are added to the appropriate WBS element.*

*Summarize the risks associated with implementing this investment initiative. Include the overall risk rating supported by a 5 X 5 risk matrix.*

See “*Guide to Conducting Business Case Risk Assessments*” *found on the IP&A website at* [***http://www.ipa.faa.gov***](http://www.ipa.faa.gov)*.*

### Issues and Opportunities

*Summarize the major issues that have been analyzed and incorporated into the business case, as well as any opportunities that would have a positive impact on FAA operations and services. For ATO initiatives, reference the PMO Risk, Issues, and Opportunities (RIO) Management Plan.*

### Sensitivity Analysis

*Sensitivity analysis involves changing key parameters in the cost model to test their effect on cost variation. In order for sensitivity analysis to reveal how the cost estimate is affected by a change in a single assumption, the cost estimator must examine the effect of changing one assumption or cost driver at a time while holding all other variables constant. Be sure to perform sensitivity analysis on key design cost drivers to determine their impact on cost.*

*Sensitivity analysis includes:*

* *Testing the sensitivity of cost elements to changes in input values and key assumptions*
* *Determining the effect of changing quantities or schedule on the overall estimate*
* *Determining which assumptions are key cost drivers and which cost elements are affected most by changes*

*Use the following table to identify the key parameters on which a sensitivity analysis was performed and summarize the impact on cost.*

|  |  |
| --- | --- |
| **Parameter** | **Cost Impact** |
|  |  |
|  |  |

*See GAO Cost Estimating and Assessment Guide, Chapter 13 for a discussion on sensitivity analysis found on the IP&A website at* [***http://www.ipa.faa.gov***](http://www.ipa.faa.gov)*.*

# Affordability Analysis

*Send the lifecycle cost estimate for this Facility Upgrade initiative to FAA Finance. This organization assesses the budget impact and relative contribution to Agency goals of this initiative against other investment programs in the FAA financial baseline. When a solution cannot be funded within the capital investment baseline, FAA Finance may propose offsets from lower priority programs. The budget impact assessment shapes subsequent deliberations of the business case analysis team.*

*Summarize findings and recommendations of the affordability assessment here.*

# Related Assessments

*Depending on the nature of the investment, all or some of the following assessments may be appropriate:*

* *Human Engineering and Operability Assessment*
* *Information and System Security Assessment (See AMS Policy Section 4.11 on FAST)*
* *Environment and Occupational Safety and Health Assessment*
* *Other Specialty Engineering Assessments*

*See the IP&A website for information on the above assessments.*

*Summarize results here.*

# Recommendation

*Describe the facility upgrade you are recommending and provide supporting rationale (i.e., affordability, cost savings, schedule, risk, capability, etc.). Use the table below (or appropriate variation) to summarize and prioritize the major activities or projects of the facility upgrade initiative and their operational impact, criticality, immediacy, and cost. This presentation will allow decision-makers to consider different funding trade-offs, assess how differing levels of funding may impact overall program effectiveness, and ultimately balance the cost of the initiative against annual budget threshold limitations.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Facility Project Descriptor** | **Operational Impact** | **Critically** | **Immediacy** | **Cost** |
| Project 1 |  |  |  |  |
| Project 2 |  |  |  |  |
| Project ‘n’ |  |  |  |  |

# Impact if Not Funded or Delayed

*Briefly state what will happen if this effort is delayed or not funded (Reference the Legacy Case Risk Assessment in the Shortfall Analysis Report). Summarize the impact on other initiatives or operational assets dependent on this facility upgrade.*

# Procurement/Contracting Strategy

*Identify the recommended contracting approach, if any, and summarize the rationale for the recommendation.*

**APPENDICES**

**Appendix A: Business Case Analysis Team Members**

*Identify the organization and briefly define the role of each business case team member in the following table.*

|  |  |  |
| --- | --- | --- |
| **Name** | **Organization** | **Role** |
|  |  |  |
|  |  |  |

**Appendix B: References**

*Use the following table to list references and documents used in this business case analysis. Examples include basis of estimates for cost and schedule and related assessments.  Each reference should include document title, originating organization, and date.*

|  |  |  |
| --- | --- | --- |
| **Document Title** | **Originating Organization** | **Approval Date** |
|  |  |  |
|  |  |  |

**SUPPORTING DOCUMENTS**

**Final Shortfall Analysis Report**

**Facility Execution Plan (Project Level)**

*A Facility Execution Plan (project level) is required for facility projects costing more than $15M involving either new construction or having complex or politically sensitive aspects (Sub-ACAT F1).*

**Life Cycle Cost Estimate**

**Cost Basis of Estimate**