DATE: March 12, 2014

TO: Center Directives Manager
Langley Research Center

FROM: J. F. Barthelemy
Deputy Director, Office of Strategic Analysis, Communication and Business Development

SUBJECT: MEMO Authorizing Continued Use of Expired Langley Directive
LMS-LPR-7510.1, Project Initiation and Proposal Procedural Requirements
Expiration date: March 19, 2014

REF A: NASA Requirement Waiver for NPR 1400.1 (3.5.2.6), NRW 1400-37

In accordance with reference A, I authorize the continued use of the expired subject directive.

LMS-CP-7510.1, Project Initiation and Proposal Procedural Requirements
Summary of required changes: 1. Document is out for review process
The directive was also assessed for the risk of continued use after expiration versus the risk of not having the directive available after expiration. The results of that risk assessment are: It is important that the use of the directive remain in effect after its expiration due to the fact that it provides a process for reviews used to plan projects, to submit proposals for new projects and to begin all new projects or portions of projects conducted by LaRC.
Justification for the delay is: Document will expire before approval signature can be acquired in review process.

Please refer any questions or concerns regarding the continued use of this directive to J.F. Barthelemy, Deputy Director, OSACB.

Deputy Director, OSACB (Date) 12 Mar 14

cc:
010/K.C.Suddreth

218/JFBarthelemy:slc 3/12/14 (42809)

LPR 7510.1

Effective Date: March 19, 2009

Revised: November 10, 2010

Expiration Date: March 19, 2014

Langley Research Center

Project Initiation and Proposal Procedural Requirements

National Aeronautics and Space Administration

PREFACE

P.1 PURPOSE

a. Langley Research Center (LaRC) conducts research and develops technologies for space exploration, for advancing the understanding of the Earth's climate, for understanding atmospheres on other planets, and for improving air transportation. All work is accomplished through projects of various sizes that are conducted for NASA's Mission Directorates, for other government agencies, for industry, and for academic institutions.

b. This procedural requirement describes four (4) reviews that will be used to plan projects, to submit bids for new projects and to begin all new projects or portions of projects conducted by LaRC.

c. For purposes of this procedural requirement, a "project" has defined requirements, a life-cycle cost, a beginning and an end, and requires an investment by LaRC.

d. The documentation recording decisions from the reviews shall be maintained by the sponsoring Product Unit.

e. Waivers to requirements outlined in this LPR shall be approved by the appropriate Decision Authority and shall be maintained by the sponsoring Product Unit.

P.2 APPLICABILITY

a. The 4 reviews identified in this process are required for the initiation of all projects to be conducted by LaRC. This Center procedural requirement supplements other NASA policies, procedural requirements, and regulations as well as Center level requirements.

b. The scope and content of the 4 reviews, as outlined in this procedural requirement, are appropriate for projects >$25M such as large space missions. At the discretion of and as outlined in writing by the appropriate Decision Authority, the content and structure of each review can be streamlined to best meet each project's requirements.

P.3 AUTHORITY

a. NPD 1050.1, "Authority to Enter Into Space Act Agreements"
b. NPD 1370.1, "Reimbursable Utilization of NASA Facilities by Foreign Entities and Foreign-Sponsored Research"
c. NPD 7120.4, "Program/Project Management"

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P.4 APPLICABLE DOCUMENTS

a. NPR 7120.5C, “NASA Program and Project Management Processes and Requirements”
b. NPR 7120.5D, “NASA Space Flight Program and Project Management Requirements”
c. NPR 7120.8, “NASA Research and Technology Program and Project Management Requirements”
d. NASA FMR Volume 16, “Reimbursable Agreements”

P.5 MEASUREMENT/VERIFICATION

For projects >$25M, APPO will provide a report on the Project Initiation process followed. This report will be provided to CLC following the project Center Commitment Review. This information will be used to verify the appropriate Center organizations involvement and the right scrutiny given the project to enable the Center to deliver on the project commitment.

P.6 CANCELLATION

a. LMS-CP-1901, “Program Office Response to External Requests and Proposals”

b. LMS-CP-1902, “Proposal-Based New Business Development”

c. LMS-CP-1905, “Obtaining Approval for New Business”

d. Capture Management process, dated November 2005

Original signed on file

Cynthia C. Lee
Associate Director

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1. INTRODUCTION

1.1 Decision Authority

a. The Langley Center Director or a person designated by the Center Director is the Decision Authority for projects valued at more than $25M. For projects valued at less than or equal to $25M, Product Unit Directors are the Decision Authority for projects within their respective areas.

b. The Directors for the Aeronautics Research Directorate (ARD), the Advanced Planning and Partnership Office (APPO), the Exploration and Space Operations Directorate (ESOD), the Science Directorate (SD), and the Systems Analysis and Concepts Directorate (SACD) are the Product Unit (PU) Directors at Langley Research Center (LaRC).

1.2 Overall Process

a. The overall Project Initiation process is depicted in figure 1, Overview: Project Initiation.

Figure 1. Overview: Project Initiation

Langley Research Center

Overview: Project Initiation Process

The reviews apply to all projects. Content, format, and attendance tailored based on project size, content and complexity.
Decision Authority is the Center Director for projects > $25M or the Product Unit Director for projects ≤ $25M

	Kick-off Meeting	Bid/No Bid Gate	Red Team Review	Center Commitment Review
What	• The initial planning meeting to form team and orient participants • The goal is to understand what the project must accomplish in order to be successful and identify the next steps for each organization	• Review project to concur that it continue to align with the Center business strategy • Concur that the project provides value to the Center and to the customer	• Review project with respect to cost, schedule, technical performance and risk management • Review for ability to implement project, responsiveness to customer, and compliance with customer requirements	• Final management review of project plan or proposal before authorization to submit to customer • Outcome is a recommendation to the Decision Authority as to the project's readiness to proceed
Who	• All organizations that will contribute to the project	• Entire CLC for projects > $25M • Team appointed by Product Unit Director for projects ≤ $25M	• Team of discipline experts, technical and mission support functions • Team approved by the Decision Authority	• Small team appointed by the Decision Authority • For projects > $25M, SMO, SMAO, Chief Eng, CFO, and appropriate engineering orgs based on project scope (RTD, SED, SACD, COD, SD)

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b. All projects shall perform each of the four reviews: Kick-Off Meeting, Bid/No Bid Gate, Red Team Review, and Center Commitment Review.

2. KICK-OFF MEETING

2.1 Purpose

a. The Kick-Off Meeting is the initial review in the Project Initiation process. It is used to formalize the team, and orient the meeting participants to a project that the Center will be undertaking. The goals are to develop a solid understanding among the organizations contributing to what the project must accomplish in order to be successful, and to identify how each organization will proceed after the Kick-Off Meeting.

b. A meeting should be scheduled as soon as the draft Broad Agency Announcement (BAA) is released or as soon as LaRC is aware there is an opportunity forthcoming (e.g., in working with the Constellation Office, LaRC learns that a lightweight structural component project will be needed, or The Boeing Company contacts ARD to initiate discussions on providing wind tunnel support for an advanced hypersonic transport project). The BAA includes Announcement of Opportunities (AO), NASA Research Announcements (NRA), and other forms of announcements approved by the Assistant Administrator for Procurement (Code HS).

2.2 Attendees

a. Meeting participants should include the Sponsoring PU Director (PUD), the Principal Investigator, the Proposal Manager and/or Project Manager.

b. Depending on the content and scope of the project other participants could include any Center organization, including the Science Team, representatives from the appropriate engineering organizations, and representatives from the appropriate Business organizations: Office of Procurement (OP), Office of Human Capital Management (OHCM), Center Operations Directorate (COD), Office of Chief Counsel (OCC), Office of the Chief Financial Officer (OCFO), etc).

2.3 Entry Criteria

a. The Sponsoring PU has determined that the project aligns with the PU and the Center business strategy. It is preferred that the sponsoring PU will have presented the project idea at a Center Leadership Council (CLC) New Business Review, preferably at a quarterly New Business meeting when overall business strategy is presented.

b. A draft BAA has been released or the Center has been contacted about a potential business opportunity.

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c. The team has received approval from the sponsoring PU to begin work and to address the requirements for a Kick-Off Meeting.

2.4 Review Agenda/Description

a. The review should last no more than 4 hours.

b. The review should be led by the Project or Proposal Manager. Where the project will be in response to a competed opportunity, it is recommended that the Proposal Manager become the Project Manager when the Center wins the work.

c. The Principal Investigator and Project Manager should present (1) an overview of the BAA or the opportunity; (2) a description of the project LaRC will develop in response to the customer, including science/technical requirements, potential non-governmental partners, and potential conflicts-of-interest; (3) an outline of the Center resources and the requirements to develop a project plan, including planning team personnel, budget and space requirements; and (4) a plan for developing an approved cost estimate prior to the Center Commitment Review (CCR).

d. The sponsoring PU should present a completed Independent Cost Estimate (ICE) checklist. The purpose of the checklist is to assess the project's scope, complexity, and size. While there is not a clear delineation of when an ICE is required, the more boxes selected on the checklist, the more likely an ICE will be required. The ICE checklist includes:

(1) Is the project's life cycle cost >$25M?
(2) Are other Centers, government agencies, or international partners involved?
(3) Is the project critical to future business?
(4) Is the work on the critical path of a program or project?
(5) Are there hardware or software deliverables?
(6) Is more than one (1) Mission Directorate providing funding?
(7) Are there more than three (3) LaRC organizations involved in implementation?

2.5 Outcomes

a. The Lead for the Kick-Off Meeting will record meeting participant concurrences. Concurrence indicates that the Kick-Off presentation is approved as (1) definition of the remainder of the Project Initiation Process and (2) the project plan outline. A record will also be made of recommended changes to the plan. This record will be provided to the Decision Authority for recommended action.

b. The Project Initiation process requirements are specified (e.g., review structure and content, dates for reviews, Agency-level processes).

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c. The cost estimation process requirements are specified, including the tool that will be used for the project cost estimate and the process to validate the project cost estimate.

(1) For projects requiring an ICE, OCFO has responsibility for initiating the ICE.

(2) For projects > $2M and not requiring an ICE, the PU ensures the project cost estimate is validated, and is vetted through the OCFO.

(3) For projects ≤ $2M, the validation method is at the discretion of the PUD.

d. If the project is ≤ $25M, a recommendation can be made that the Decision Authority be elevated to the Center Director.

2.6 Circle-Back Process: Requests for Short Notice Cost Estimates

a. At times, LaRC receives requests for a project cost estimate that must be completed without enough time to complete the Project Initiation process before submittal. For those situations, the Center must provide an integrated response and should consider the general principles used to define the Kick-Off Meeting. Following submittal, the Project Initiation process should be assessed to determine what reviews should be held to ensure that the Center is knowledgeable about the project and can support the work the Center has offered to perform. This is referred to as a "Circle-Back" process and serves to complete the Project Initiation process.

b. Upon receipt of a request for a quick response Rough Order of Magnitude (ROM):

(1) The project will quickly get the information out to make others aware of the request. An alert e-mail (see Appendix B) should be immediately sent to the key parties. At a minimum, the e-mail should be sent to the sponsoring Product Unit Director, the appropriate engineering organizations, the Chief Financial Officer, the APPO New Business Team Lead, the Chief Engineer, and the Systems Management Office Director.

(2) If this request is from a non-NASA customer, an approved Estimated Price Report (EPR) shall be obtained prior to responding to the customer.

(3) The cost estimate should be clearly identified as a ROM that has not gone through the Center's official review process.

(4) After a response has been sent to the customer, the sponsoring Product Unit will determine what portion of the Project Initiation process was not covered in the quick response. The sponsoring Product Unit for this activity is responsible for ensuring that these reviews are adequately addressed, enabling the Center to ensure that the project team did not overlook anything in the quick response to the customer.

c. A recommended draft for the alert e-mail is provided in Appendix B. The e-mail subject line should include the following phrase so that the e-mail is easily identified as an urgent action: URGENT COST ESTIMATE ACTION: Cost Estimate Due (list date mm/dd/yyyy) to Directorate/Center/Key Individual. The alert e-mail (as shown in the Appendix B draft) should identify:

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(1) needed resources (fabrication, wind tunnels, non-governmental partners, procurements, etc.)
(2) the NASA Mission Directorate or external customer funding the work
(3) the assumptions made related to the project
(4) if this is a sensitive request or if there is competition sensitivity for the project
(5) the lead person responsible for the project and the resources point of contact (POC) for this estimate
(6) any guidance given by the Decision Authority

3. BID/NO BID GATE

3.1 Purpose

a. The purpose of the Bid/No Bid Gate is to review the project and decide if it continues to have value to the Center and the Customer and that it is a valuable and viable candidate offer for the business opportunity.

b. There are two additional purposes for this gate:

(1) Cross-cutting check: The project should have worked known issues with the appropriate organizations prior to this review. This review allows for final consideration of impacts across the LaRC organizations. (e.g., Are there workforce or other resource issues that the project team may have overlooked?)
(2) Awareness/Advocacy: When the project is approved to proceed, the Decision Authority and the organizations involved in the review are responsible for advocating for the approved project. This gate provides the Decision Authority and the organizations in the review the background knowledge and understanding of the project, so that when asked about the project they can respond positively and with knowledge about the work.

c. The timing for this gate is immediately after release of a BAA or immediately after notice that a customer is willing to fund a business opportunity.

3.2 Attendees

a. This review should be given to Center Leadership Council for projects where the Decision Authority is the Center Director. For projects where the PU Director is the Decision Authority, the PU Director will appoint a team.

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3.3 Entry Criteria

a. The project aligns with the PU and the Center business strategy. It is recommended that the PU provide updates on the project during the CLC New Business Review meetings and include this in the PU business strategy during quarterly revenue reports.

b. The BAA has been released or the Center has received information that the customer has funding for the business opportunity.

c. The project team has completed a rough order of magnitude cost estimate based on a conceptual plan.

3.4 Pre-Review Requirements

a. Material should be provided to familiarize the review team members with the structure and scope of the customer requirements (e.g., Web site and summary of BAA).

b. The schedule for the reviews as established by the sponsoring PU should be provided.

c. The alignment of this project with LaRC and the PU's business strategy should be described.

3.5 Review Agenda/ Description

a. This review is typically a 60 min presentation with an additional 30 minutes for discussion.

b. If there are multiple responses to an opportunity, there should be a determination on the need to treat these as competition sensitive. If the responses are considered competition sensitive, the review team should be reminded that this means that the information provided is not to be shared with other teams at Langley or elsewhere. Each project team will be given a separate time to present their material to the review team. Project team members are not to be present during another team's presentation. Where there are several competing opportunities, discussions should include the impact one team might have on another, including win ability and resource requirements.

c. The project presentation should include an overview of the proposed total project and Langley's specific role. The intent is to provide the review team with an understanding of the programmatic and technical rationale for submitting the proposal. Topics to consider for the presentation are: the science and/or technical impact, customer advocacy, why should LaRC be involved, (what is the expected revenue to the Center and how does this align with the LaRC strategy), mission design, technology

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content, roles and responsibilities, schedule, workforce and budget requirements, and win ability. The presentation should also summarize the business case including (1) an assessment of what the value would be to the Center when the project is won and (2) identification of the resources that will be required to win the project work.

d. The review team should review the project from the position of the benefit to LaRC and evaluate the project's readiness to develop a viable project plan. This should include (1) a sound team approach, (2) a sound Project Management plan, (3) a sound technical concept, (4) LaRC's ability to deliver on the intended commitment, and (5) a reasonable assessment of the ability of the project to win funding. The discussions should also consider strategic implications and economic costs and benefits.

3.6 Outcome

a. The Decision Authority will determine if the project is to proceed, proceed with changes, or not to proceed. Any comments, recommendations, or required actions will be provided the team and will include a due date and POC.

b. A determination on Space Flight project and AS9100 requirements, including the level of Earned Value Management (EVM) that will be expected and if project will be considered critical or complex. This determination will address the level of project plan required.

c. The project cost estimate will transition to the use of the APPO tool determined at the Kick-Off Meeting and should capture the basis of the estimate.

d. A determination to proceed will require the OCFO to proceed with the ICE recommendations determined at the Kick-Off Meeting.

4. RED TEAM REVIEW

4.1 Purpose

a. The Red Team review is conducted by discipline experts who are not directly involved in the project. The entire project should be reviewed for the ability to execute with respect to cost, schedule, technical performance and risk, for compliance with the customer requirements, and for the ability to persuade the customer to select this project.

b. Typically this review is conducted about two-thirds the way between the Bid/No Bid Gate and the CCR.

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4.2 Attendees

a. The Decision Authority will assign the Red Team Manager. The Red Team Manager should identify a list of candidate members and finalize members with the Decision Authority.

b. The Red Team members should consist of discipline experts with relevant skills and experience in reviewing similar types of projects. Internal NASA reviewers should not be affiliated with the current project. If practical, external reviewers should be included on the team to provide a more independent perspective. Possible members could include: outside proposal professionals, customer specialists (i.e., individuals that know the customers requirements and concerns), and subject matter experts.

4.3 Entry Criteria

a. A draft project plan is complete and, when appropriate, a draft proposal is complete.

b. The project team grass-roots cost estimate has been developed using an APPO basis of estimate (BOE) tool.

4.4 Review Guidelines

a. The time required for this review is typically a function of the level of effort required by LaRC to implement the project. The Red Team manager will recommend the timeline for the review.

b. The APPO coordinates with the Decision Authority and supports the sponsoring PU in the management of Red Team reviews.

c. The typical Red Team is responsible for:
   (1) evaluation of the proposal/project technical, management, and cost sections,
   (2) recommendation of improvements or changes, and
   (3) evaluation of the project against guidelines provided by the customer or against the evaluation factors listed in the solicitation.

d. Tasks for Red Team Manager typically include:
   (1) Establish the Red Team review timeline and a list of candidate members. Review this with the Decision Authority.
   (2) Finalize the review timeline and members.
   (3) Review the entire proposal and/or project with the Red Team members for compliance with the customer request.
   (4) Review written proposals with the Red Team members for the proposals ability to persuade the customer to select it.

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(5) Review the entire proposal and/or project with the Red Team members for the Center's ability to execute with respect to cost, schedule, technical performance and risk.
(4) Conduct an in-depth review of each section with the Red Team, noting strengths and weaknesses, identifying areas that require clarification, providing recommendations, and for proposals, scoring an evaluation form.
(5) Compile the review team comments into a single response.
(6) Debrief the project team.
(7) Coordinate with the project team to complete the actions from the Red Team review.
(8) Attend the CCR to discuss disposition of Red Team comments.

4.5 Proposal Evaluation Form

a. When a proposal is to be submitted in response to a BAA, the Red Team Manager should develop an opportunity-specific evaluation form based on the requirements outlined in the solicitation. When a written plan is to be submitted to a customer, following best practices means including the evaluation in the Red Team review. In general, the evaluation form should include the following factors:

(1) Organization and Emphasis
  (a) Does the content and organization align with the outline in the customer's solicitation?
  (b) Are all the main ideas upfront in each section? Are they summarized at the end of each section?
  (c) Is the text logical and easy to follow?
(2) Win Themes and Strategies
  (a) Does the proposal effectively present the value of our solution?
  (b) Does the response emphasize our strengths and mitigate our weaknesses?
  (c) Does the response ghost (or address) the competition's weaknesses?
(3) Compliance and Responsiveness
  (a) Is every requirement in the solicitation requirement addressed?
  (b) Do the answers echo the customer's language?
  (c) Does the document comply with any page count limitations?
(4) Appearance and Presentation
  (a) Is the document's appearance professional?
  (b) Is all of the information presented correctly (dates, names, etc.)?
  (c) Are the figures and tables correctly numbered?
  (d) Do all of the page numbers and figure/table numbers cross-reference?
(5) Consistency and Brevity
  (a) Have extraneous words, sentences, paragraphs, visuals, or data been eliminated?
  (b) Were consistent terms and abbreviations used?
  (c) Do the writing styles match? Does it seem as though one person wrote the entire proposal/plan?

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(6) Visuals
  (a) Do visuals and text complement one another?
  (b) Are visuals simple and uncluttered?
  (c) Are visuals at the appropriate level for the expected reviewer?
  (d) Does each visual have a clear message?
  (e) Was each visual introduced in the text before it appears?
  (f) Do they illustrate the major benefits for the customer emphasized in the bid?
  (g) Do they reflect the overall proposal strategy?

4.6 Outcome

a. The findings of the Red Team shall be documented and provided to the project team and to the Center Commitment Review Chairperson (see Figure 1, Overview: Project Initiation, and Chapter 5, of this LPR, Center Commitment Review).

b. The documented findings shall include changes recommended to the project plan, areas in need of clarification, and improvements recommended to any written proposal.

5. CENTER COMMITMENT REVIEW (CCR)

5.1 Purpose

a. The CCR is the final management review in the Project Initiation process and provides recommendations to the Decision Authority on the readiness of the project to be implemented.

b. Typically the review should be conducted at least one (1) week before the submission date of the proposal or project.

5.2 Attendees

a. The CCR Chairperson will be appointed by the Decision Authority and will usually represent the organization that will be responsible for managing the project during implementation. For example, if Flight Projects Directorate (FPD) is to implement the project, then FPD would chair the CCR Board.

b. Recommended members of the CCR Board:
  (1) Directors from the sponsoring Product Unit (or their representative)
  (2) Directors from the appropriate engineering directorates
  (3) Director of the Systems Management Office
  (4) Director of Safety and Mission Assurance
  (5) Chief Engineer

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c. Other organizations recommended as invitees:
(1) Chief Financial Officer
(2) Office of Procurement
(3) Office of Chief Counsel
(4) Other engineering directorates
(5) Advanced Planning and Partnership Office

d. The Chairperson may choose to add additional CLC members to the Board or as participants depending on the scope and the nature of the project.

5.3 Entry Criteria

a. Prior to reaching the Center Commitment Review, the project team shall have:
(1) Passed a Bid/No Bid Gate.
(2) Conducted a Red Team or equivalent review of the technical and management approaches/plans, schedule, and cost estimate.
(3) Developed a validated project cost estimate using the method approved at the Kick-Off Meeting.
(a) If an ICE was required, a reconciliation of the ICE and the project cost estimate shall be completed.
(b) If an ICE was not required and the project is >$2M, the project cost estimate shall be validated, and vetted through the OCFO.
(4) Developed a procurement plan for major acquisitions that has been reviewed by the Office of Procurement.
(5) Drafted any Space Act or other agreements appropriate to the project and received at least an initial review by OCC.
(6) Discussed the detailed workforce requirements with the appropriate Branches or Directorate management.
(7) Completed a draft project plan and, when appropriate, a proposal.

5.4 Pre-Review Requirements:

a. The draft project plan and/or proposal shall be distributed to the CCR Board in its final form. The material should be ready for review and final in all particulars (scope, schedule, budget, workforce, and facilities) to enable Center commitment.

b. The CCR presentation shall be distributed to the CCR Board in a form that completely addresses each item on the agenda.

c. The material should be distributed at least 3 working days in advance of the CCR for opportunities with a ≤ $25M and at least 5 working days in advance for opportunities with a value > $25M).

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5.5 Review Agenda/Description

a. The typical review is a 2-hour presentation followed by a 1-hour discussion period.

b. The project team will provide an overview of the project including

(1) importance of the project to the Center business strategy.
(2) clarity and understanding of the stakeholder goals and requirements.
(3) clarity and maturity of any partnerships.
(4) clarity of roles and responsibilities.
(5) project's planned compliance with or expected deviation from NASA and LaRC requirements.
(6) adequateness of identified resources required for implementation (workforce, facilities, schedule, and funding).
(7) availability of identified resources and the impact on other projects when the resources are provided.
(8) the project implementation schedule, the recommended project pricing, and the strategy for the pricing.
(9) identification of major and significant risks and a sound risk mitigation plan that has been incorporated into the project plan.
(10) a report on the reconciliation of the project cost estimate with the second validation estimate.
(11) actions that Center management needs to take to support this project prior to or subsequent to the customer giving their Authority to Proceed (ATP).
(12) disposition of the Red Team comments:
(a) a summary of changes since the Red Team review, along with how these changes address issues and recommendations from the Red Team, and
(b) a review of all issues or suggestions that are not reflected in changes.

c. The OCFO will report on the cost estimation and validation process, including the ICE.

d. For projects >$25M, APPO will report on the Project Initiation process. It is recommended that this report include a statement on which organization will oversee life cycle reviews of the project. It should also include the expected timing for funds to arrive at the Center and identification of the organization who will notify the oversight organization when the work is awarded and the funds arrive at the Center.

e. The applicability of space flight standards to project implementation should be discussed and a recommendation made to the Decision Authority on the applicability of the standards to the project.

f. The Center organizations who will be involved in project implementation, should speak on their readiness to implement the project when the work is awarded. This would include a statement that they are ready to staff, commit facilities, and provide other resources on the schedule proposed.

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g. A closing discussion should be held to reach consensus on the recommendation to the Decision Authority.
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5.6 Outcomes

a. A written recommendation from the CCR Chairperson to the Decision Authority on the disposition of the project as determined during the closing CCR discussion. The recommendation can be one the following actions:

1. The Board is fully satisfied, and recommends the project receive authority to submit; possibly with recommendation for supporting action by Center management, or

2. The Board has some reservation, but recommends the project receive authority to submit, with recommended remedial actions to be completed by the project or the Center after the proposal is submitted, or

3.The Board has significant reservations, and recommends action(s) to be completed by the project and/or Center, prior to submittal of the proposal, or

4.The proposaland/or plan is sufficiently deficient that the Board recommends that it not be submitted without significant corrective action.

b. A written record of the meeting, findings and recommendations. Generally this is arranged by the CCR Chairperson.

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APPENDIX A: ACROYNMS

AO	Announcement of Opportunity
APPO	Advanced Planning and Partnership Office
ARD	Aeronautics Research Directorate
ATP	Authority to Proceed
BAA	Broad Agency Announcement
BOE	Basis of Estimate
CCR	Center Commitment Review
CLC	Center Leadership Council
COD	Center Operations Directorate
CP	Center Procedure
EPR	Estimated Price Report
ESOD	Exploration and Space Operations Directorate
EVM	Earned Value Management
FPD	Flight Projects Directorate
GFTD	Ground and Flight Testing Directorate
ICE	Independent Cost Estimate
LaRC	Langley Research Center
LMS	Langley Management System
LPR	Langley Procedural Requirement
NPD	NASA Policy Directive
NPR	NASA Procedural Requirement
OCC	Office of Chief Counsel
OCFO	Office of Chief Financial Officer
OHCM	Office of Human Capital Management
OP	Office of Procurement
POC	Point of Contact
PU	Product Unit
PUD	Product Unit Director(s)
ROM	Rough Order of Magnitude
RTD	Research and Technology Directorate
SACD	Systems Analysis and Concepts Directorate
SD	Science Directorate
SED	Systems Engineering Directorate
SMAO	Safety and Mission Assurance Office
SMO	Systems Management Office

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APPENDIX B: NOTIFYING PARTIES OF QUICK TURNAROUND COST ESTIMATE

SUBJECT of e-mail: URGENT COST ESTIMATE ACTION: Cost Estimate Due mm/dd/yyyy to Directorate/Center/Key Individual

All,

This is to inform you of an urgent request to submit a Rough Order of Magnitude Cost Estimate for XXXXX. This estimate was requested by XXXXX of Mission Directorate/Center and is **due to XXXXX by COB mm/dd/yyyy**. *(If the Mission Directorate isn't the one who is requesting the cost estimate, add "If this project is selected to go forward, it will be funded by the XXXXX Mission Directorate.")*

XXXXX will be the project person responsible for development of the estimate with support from XXXXX, resources point of contact for this estimate. Due to the short turnaround required, after completion of the cost estimate, the project person responsible will conduct a "circle back" meeting to inform all parties of the actions taken and assumptions made in developing this estimate.

Below is some key information (background and assumptions) being used in this estimate:

- Background
  - Give context to why the quick turnaround and why we are being asked to do the estimate. ***Example:*** Requested by XXXXX to determine if it would be cost effective to change the manufacture of XXXXX from the contractor to in-house.
- Assumptions
  - Identify any major facilities and/or capabilities required (special laboratories, wind tunnels, fabrication, aircraft, simulators, etc.).
  - Identify in-house/out-of-house assumptions
  - Any guidance from OD that needs to be considered (**example:** are we following new business process? If not, why?).
  - The potential funding source(s) for this effort.
  - Identify whether the project will be a space flight project (Langley LPR 7120.5 applies) and whether the quality standards of AS9100 apply.

Due to the urgent nature of this request, it is important for all to recognize that not every question can be answered with the desired/required specificity and a "best estimate" is all that is required at this time. We must all be flexible in making assumptions in order to effectively meet the deadline for this request. Therefore, all of our desired checks/balances may not be able to be completed prior to the delivery of the estimate.

Please assist in making this process as smooth as possible by identifying any key personnel who may need to be involved in this estimate, keeping in mind that this action

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is sensitive in nature and should be shared only with those personnel who have a need to know.

Distribution for all:

TO: New Business Team Lead, Advanced Planning and Partnership Office (APPO)
Cost Analyst Lead, APPO
Basis of Estimate Tool Developer, APPO
CFO Budget Strategist, Office of the Chief Financial Officer (OCFO)
CFO Cost Analysis Officer, OCFO
FPD Business Manager, Flight Projects Directorate (FPD)

CC: "alternate" for CFO Cost Analysis Officer, OCFO
"alternate" for CFO Budget Strategist, OCFO
"alternate" for New Business Team Lead, APPO
Information purposes – Director and Deputy Director, FPD

In addition to the above, TOs and CCs for emails based on funding:

Aeronautics Research Mission Directorate Funded Work

TO: Lead Aeronautics Analyst supporting ARD, OCFO
RM Analyst supporting ARD

CC: Information purposes - Director, Aeronautics Research Directorate

Exploration Mission and Space Operations Mission Directorate(s) Funded Work

TO: Deputy Director for Resources, Exploration and Space Operations Directorate (ESOD)
RM Analyst supporting ESOD

CC: Information purposes - Director, ESOD
"alternate" for Deputy for Resources, Business Manager, ESOD

Science Mission Directorate Funded Work

TO: Deputy Director for Resources, Science Directorate
RM Analyst supporting SD

CC: Information purposes - Director, SD

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