NASA Procedural Requirements

COMPLIANCE IS MANDATORY

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Subject: NASA Program and Project Management Processes and Requirements

Responsible Office: Office of the Chief Engineer

| TOC | Preface | Change_Log | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | AppendixA | AppendixB | AppendixC | AppendixD | AppendixE | AppendixF | AppendixG | AppendixH | AppendixI | AppendixJ | AppendixK | AppendixL | AppendixM | AppendixN | AppendixO | ALL |

Chapter 1. Overview of the NASA Environment

1.1 Introduction

1.1.1 This document defines the management requirements for formulating, approving, implementing, and evaluating NASA programs and projects [1]. Because NASA is a diverse organization whose mission was established for multiple scientific and engineering purposes under the *National Aeronautics and Space Act of 1958* (the "Space Act"), this document is intended to reflect the flexibility needed to serve the many types of NASA programs and projects. At the same time, it is intended to build a cohesive management approach, while retaining the creative freedom to innovate techniques that improve safety and quality, and reduce the cost of expanded knowledge and of delivered products and services.

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[1] For basic and applied research, the project-equivalent level of management is portfolio management.

1.1.2 NASA is an agency in the process of transforming itself. This transformation is largely being driven by the new, unifying Vision for Space Exploration, but it is also a response to the recognition of the need to manage more efficiently, and with greater management responsibility and accountability[2]. Not forgotten too, are the Columbia Accident Investigation Board (CAIB) recommendations for improving responsibility and accountability in the area of safety. The establishment of an Independent Technical Authority (ITA) represents a direct response to the CAIB recommendations [3], and a critical shift in NASA's program and project management strategy relating to safe and reliable operations. This document implements NASA's revised management strategy by defining responsibilities, accountabilities, and efficiency-enhancing measures in the form of program and project management requirements.

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[2] Specific recommendations in this area are described in the Report of the Roles, Responsibilities, and Structures ("Clarity") Team.
[3] Specifically, Columbia Accident Investigation Board (CAIB) recommendation R7.5-1.

1.1.3 This chapter provides an introduction to NASA's strategic framework for managing programs and projects, NASA's investment areas, manager roles and responsibilities, and management strategies. Subsequent chapters deal with program management requirements, project management requirements common to all projects, and investment area-specific management requirements.

1.1.4 In this document, a requirement is identified by *"shall,"* a good practice by *"should,"* permission by *"may,"* or *"can, "can,"* expectation by "will," and descriptive material by *"is."*

1.2 NASA's Strategic Framework

1.2.1 NASA's Strategic Management System, described in detail in the NASA Strategic Management Handbook (NPR 1000.2), consists of integrated activities that enable the Agency to establish and execute strategy, make decisions, allocate resources, formulate and implement programs and projects, and measure its performance. There are four parts in the strategic management process: Strategic and Performance Planning, Budget Formulation and Implementation, Implementing Strategies and Execution, and Performance Evaluation and Reporting. These activities involve all levels of the Agency, from the individual employee's performance and evaluation plans to Agency-level strategic planning and evaluation activities.

1.2.2 National priorities broadly dictate NASA's strategic direction. At the Agency level, strategic planning is documented in the NASA Strategic Plan (NPD 1000.1) and the associated Mission Directorate Strategies and Mission Support Office Functional Leadership Plans. The Strategic Plan specifies Agency-level goals derived from these priorities, objectives supporting each goal, and the themes responsible for achieving each of the objectives. The Mission Directorates and Mission Support Offices provide the details of how each organization will help achieve Agency mission and goals. Other top-level plans address Agency supporting capabilities that require a strategic approach-- for example; the Integrated Space Plan describes NASA's long-term strategy for space, while other Agency-level plans address human capital, information technology, and facilities. NASA also produces an Annual Performance Plan containing performance measures as part of the Integrated Budget and Performance Document (IBPD).

1.2.3 The NASA Strategic Plan is designed to find a balance between the constantly evolving state of space and aeronautical science, exploration, and current space operations on the one hand, with the stability needed to successfully accomplish the Agency's broad portfolio of programs and projects on the other. The Strategic Plan links broad national priorities with specific themes, programs, and projects. This simple flow down is more complicated in practice. Programs and projects can, for example, support multiple themes. The general flow of NASA's strategy is, however, reflected in the left side of Figure 1-1.

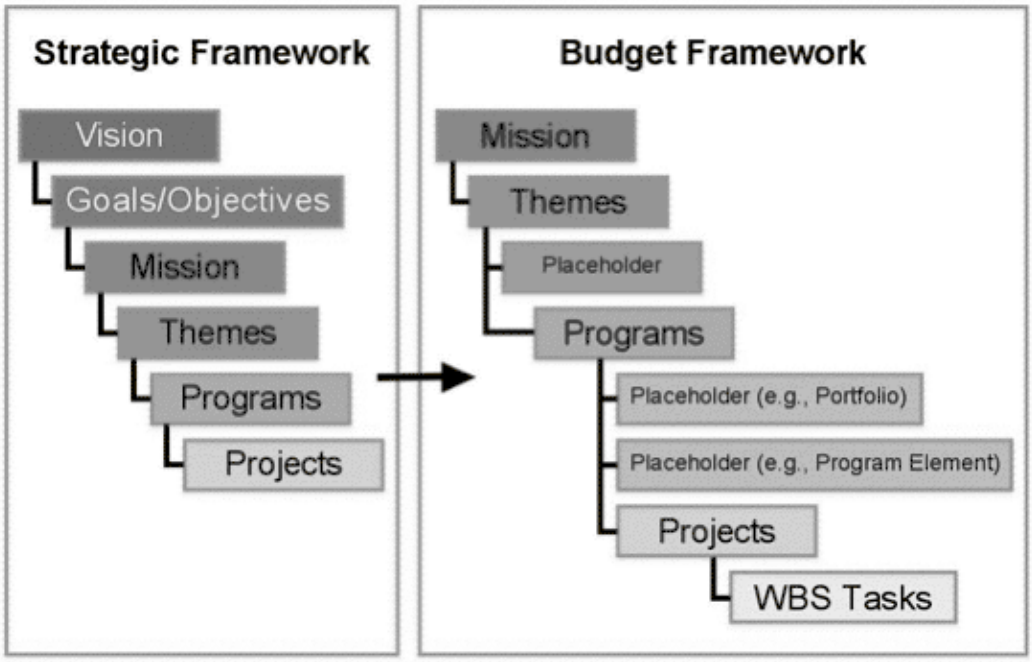

Figure 1-1: The Flow from Strategy to Implementation

1.2.4 The Agency's budget framework is derived from the strategic framework. NASA's budget planning process is a vehicle for integrating programs and projects among the themes and Mission Directorates. It also allows financial control of Agency investments and visibility into program and project execution. The budget framework, shown in the right side of Figure 1-1, is built into NASA's integrated financial management system and leads inextricably down to project work breakdown structures (WBS). Some placeholders are provided in the budget framework to allow managers the flexibility in creating operational financial structures that best match the nature of the work being performed. New knowledge and technological capabilities influence national priorities. Over a shorter timeframe, new scientific knowledge and engineering capability may require adjustments in projects, and over the longer term, in programs, themes, strategic goals, and national priorities for NASA investments.

1.2.5 The Strategic Plan's themes are addressed by a portfolio of programs and projects. As with any portfolio, the portfolio holder tasked with selecting how best to invest must choose an allocation of cost (resources) so as to

balance expected performance and risk. The NASA budget is closely linked to the Strategic Plan, and both are constructed in a manner that allows the policymaker to understand the costs, performance, and risks associated with the various thematic portfolios. This integrated picture of Agency investments is documented in the annual Integrated Budget and Performance Document.

1.2.6 Although a broad corporate strategy and the creation of theme-based collections of programs and projects are important Agency planning practices, they do not replace the critical importance of superior program and project management. Further, program and project management philosophy at NASA must reflect NASA values. Accordingly, NASA does the following:

a. Emphasizes the safety of the public, its flight crews, workforce, and critical assets.
b. Emphasizes the protection of the environment of Earth, other planets, and space.
c. Relies upon individual and organizational commitment to responsibility and accountability for doing the job right the first time.
d. Invests in and empowers an extraordinarily talented workforce to successfully execute programs and projects.
e. Encourages innovation in program and project management to foster greater efficiency consistent with safety and sound engineering and management practices.
f. Continually learns and implements valuable lessons from previous programs and projects.
g. Strives to achieve maximum reasonable safety and reliability in the design and operation of NASA systems and missions.
h. Fosters an environment that is supportive and conducive for individuals to raise and address issues of technical conscience.
i. Integrates the principles and practices of a model diversity and equal opportunity workplace, including fairness, equity, integrity, excellence, and a respect for diversity of ideas and perspectives.

1.3 Defining Programs and Projects

1.3.1 Programs and projects are different, and require different skills and professional resources. The following definitions are used to distinguish the two:

a. **Program** - a strategic investment by a Mission Directorate or Mission Support Office that has defined goals, objectives, architecture, funding level, and a management structure that supports one or more projects. A *program* has the following five attributes that help distinguish it from a project:

1. Output - a program initiates projects that deliver discrete products and services to its stakeholders. A program integrates and manages these projects over time, and provides ongoing enabling systems, activities, methods, cross-cutting technologies, and feedback to projects and stakeholders.
2. Size - a program usually contains several projects. [4] Basic and applied research programs usually contain several portfolios of investigations.
3. Synergy - generally, projects within a program enjoy some form of synergy that relates to the program's scientific or technical goals. Synergy can also flow from similar implementing strategies. [5]
4. Longevity - programs are generally created with a long, indefinite time horizon in mind. NASA must occasionally rebaseline programs or combine related programs to increase effectiveness, but usually the original reason for creating the program survives. Contrarily, projects have a definitive beginning and end.
5. Composition - a program is often composed of multiple project types, referred to in this document as investments areas or product lines (see the next section). A program could be designed with elements of basic and applied research portfolios, flight systems and ground support projects, and institutional elements. [6]

a. **Project** - a specific investment identified in a *Program Plan* having defined goals, objectives, requirements, lifecycle cost, a beginning, and an end. A project yields new or revised products or services that directly address NASA's strategic needs. [7] They may be performed wholly in-house, by government, industry, academia partnerships, or through contracts with private industry.

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[4] The single-project program construct is used in special situations usually associated with long development and/or operations periods, with a very significant investment level, and where extensive interaction and integration with many contributors is required. In such cases, the manager may perform a dual role, and is responsible for completing both program and project activities.
[5] The Discovery Program, for example, aims to build a discrete series of modest spacecraft with fast development times, each managed under a cost cap.

[6] The Explorer Program is a good example of an especially long-lived investment with many components. Explorer Program funds have supported basic research in astronomy and space physics, the development of evolutionary technologies in support of the Explorer series of spacecraft, as well as the Explorer spacecraft development projects.
[7] Project-equivalent basic and applied research portfolios are level-of-effort investments in investigations. While portfolios continue, funding for specific investigations within the portfolio may be limited to a specific number of years.

1.3.2 The Office of the Chief Engineer (OCE) and Office of the Chief Financial Officer (OCFO) maintain the official database of NASA programs and projects (including basic and applied research portfolios) known as the Master Management Mapping (M3). This list includes the designated project category as defined in Section 1.5. The database forms the structure for program and project status reporting across all Mission Directorates, Mission Support Offices, and the NASA Office of Education. (See paragraph 1.7.7.)

1.4 NASA's Investment Areas

1.4.1 Although NASA's Mission Directorates and Mission Support Offices operate under a single Strategic Plan, management practices must be designed to match the various types of NASA investments. This document distinguishes four investment areas or product lines:

a. Basic and Applied Research - NASA's basic and applied research is funded using competitively awarded grants to universities, in-house NASA researchers, and other research institutions. When NASA funds basic and applied research intended to directly support a project, it uses cooperative agreements and contracts, or appropriate funding mechanisms for in-house NASA researchers. NASA scientists also perform research for others under the Space Act and other similar agreements. This product line is also the source of fundamental breakthroughs in our knowledge and understanding of science, and many new technologies that are used in space systems, aeronautics, and terrestrial applications, and in meeting NASA's own operational and infrastructure requirements. Basic and applied research is generally funded on a level-of-effort basis with periodic progress reviews. Results are typically peer-reviewed and reported in journals and technical reports.

b. Advanced Technology Development - Across NASA, a substantial amount of work is done to translate new ideas generated in the laboratory into new systems that can be used to improve the performance of aircraft and spacecraft. Managers in this area typically employ spiral development or rapid prototyping practices to mature new technology in a stepwise fashion. Some of the work associated with this product line may be performed in-house with contractor support; some portion may be accomplished through grants and contracts.

c. Flight Systems and Ground Support - This product line results in a variety of advanced aircraft, atmospheric vehicles, spacecraft, suborbital vehicles, launch vehicles, space networks, ground networks, deep space networks and ground systems in direct support of a theme or program. NASA Program and Project Managers lead the development of these flight and ground products [8], and sometimes this means working with unprecedented designs, unknown environments, and new technologies. [9] These flight and ground products are often developed via contracts with industry. Following a successful flight system and ground support investment, a spacecraft may enter a protracted period of operations and sustainment. Some of NASA's largest investments are made in this area. [10] During operations and sustainment, managers are sometimes required to oversee the work of a large number of government and contractor professionals. Flight systems and ground support projects are extremely important from a strategic point-of-view because they typically lay the foundation for future investments and desired capabilities. With the substantial opportunity for human impact, this product line most often requires an Independent Technical Authority for technical requirements to ensure safe and reliable operations.

d. Institutional Infrastructure- To support its diverse activities, NASA invests in a complex set of supporting infrastructure developments and enhancement efforts. For example, NASA personnel manage the construction and renovation of buildings, the development of advanced communication systems, and the creation of new institutional control systems. [11] NASA personnel also manage efforts to improve the public's understanding and appreciation of science, technology, engineering, and mathematics (STEM). Institutional projects are planned, executed, and managed by NASA's Mission Support Offices. Institutional projects can be funded directly by mission programs, or indirectly through mission support budget accounts (overhead). Program and Project Managers must account for directly funded institutional projects in the estimation of life-cycle funding requirements.

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[8] In some cases, Principal Investigators from industry and academia act as Project Managers for development efforts with NASA personnel providing oversight.
[9] Within large programs, sophisticated ground systems such as a new launch complex may be developed. These ground systems should be considered part of this product line. To meet mission goals, the delivery of a new flight product in many instances, also relies on other product lines, such as the timely maturation of an advanced

technology.
[10] Specific examples are Space Shuttle and International Space Station operations
[11] The new Integrated Financial Management System (IFMS) is an excellent example of a major mission support investment. The effort to renovate the Vehicle Assembly Building at the Kennedy Space Center is an example of a major facility project that occurs over a long period of time.

1.4.2 Accurately placing a project in the correct investment area is important when using this document because different management requirements and oversight techniques will apply according to product line. Investment area-specific management requirements are found in subsequent chapters. The cognizant Program Manager is responsible for identifying the appropriate product line for each project.

1.5 Categorization of NASA Projects

1.5.1 NASA strives to execute all projects with excellence, but management requirements and Agency attention and oversight should track with the investment's magnitude and Agency priority.

1.5.2 Project categorization will be used extensively in the chapters that follow. [12] Most importantly, categorization defines Agency expectations of Project Managers by determining both the oversight committee and the level of detail that must be present in Program and Project Plans. This document provides a simple schema, shown in Table 1-1, to assist the Program Manager in determining the project's category from the magnitude of project's financial investment and priority. [13] In connection with the project category determination, the Project Manager is responsible for providing defensible estimates of the project's life-cycle cost and priority levels, whereas the Program Manager is responsible for concurrence. The Mission Directorate Associate Administrator (MDAA) or Mission Support Office Director (MSOD) approves the categorization of projects. Independent review teams will later confirm these estimates as the project reaches initial progress milestones.

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[12] In this document, the term project should be taken to mean project or portfolio, the latter label being preferred for the basic and applied research product line.
[13] There is a separate NASA-wide definition of software classes within projects that complements the project categories described in this section. Software cuts across a number of systems and subsystems of varying criticality, so a project may contain one or more software classes. The requirements for the classification of NASA software are described in NPR 7150.2.

1.5.3 For purposes of project categorization, project cost is measured in real-year (i.e., budget) dollars. [14] For flight systems and ground support projects, project life-cycle cost includes launch vehicle costs. Project priority depends on a number of factors:

a. Importance of the activity (project in-line with the critical paths of the Strategic and Capability Roadmaps).
b. Extent of international participation or joint effort with other government agencies.
c. Uncertainty surrounding the application of new and untested technologies.
d. Presence of nuclear materials on board.
e. Systems being developed for human spaceflight.
f. Spacecraft development classification (see NPR 8705.4, *Risk Classification for NASA Payloads*).
g. Criticality in terms of human safety, mission success visibility, and critical NASA assets.

Priority	Life Cycle Cost		
	LCC < $100M	$100M ≤ LCC < $500M	LCC ≥ $500M
High	Category II	Category I	Category I
Moderate	Category III	Category II	Category I
Low	Category III	Category III	Category II

Table 1-1. Project Categorization Schema

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[14] For (level-of-effort) basic and applied research, portfolio cost is measured from two years prior to five years from the current year.

1.6 Roles and Responsibilities

1.6.1 The roles and responsibilities of senior management are defined in NPR 1000.2, the *NASA Strategic Management Handbook,* and NPD 1000.3, The NASA Organization. This document, along with NPD 7120.4, *Program/Project Management,* define the responsibilities for all program and project managers, except if in conflict with statutory or regulatory requirements. Other NASA-wide policy directives (NPDs) and procedural requirements (NPRs) have been developed for specific management, science, and engineering disciplines. Similarly, Mission Directorates, Mission Support Offices, and Centers have developed lower-level management and discipline-specific policies and procedural requirements. Program and Project Managers are responsible for reviewing these and ensuring that subordinate managers and engineers are in compliance with applicable documents.

1.6.2 As part of the strategic management process, NASA Program Managers are appointed by the Mission Directorate Associate Administrator (MDAA)[15] or Mission Support Office Director (MSOD) in consultation with the Center Director if applicable.[16] The Program Manager may report to the MDAA (or MSOD) or to a Center Director, but in either case must work with the Mission Directorate or Mission Support Office staff in performing assigned responsibilities. It is the responsibility of the Program Manager to develop an accurate and complete Program Plan to ensure agreement among participants on program requirements, and technical, budget, and management commitments. The Program Manager is then responsible for implementing the program.

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[15] Sometimes Program Manager appointments can be made by a Theme Director with the concurrence of the MDAA. Both Theme Directors and Program Managers may be assigned to Centers or to NASA Headquarters at the discretion of the MDAA.
[16] For programs dedicated solely to basic and applied research, this position usually carries the title "Program Scientist."

1.6.3 Project Managers and Project Scientists are appointed by the Mission Directorate, Mission Support Office, or Center Director in consultation with the applicable Program Manager and Program Scientist. The Project Manager is responsible for developing an accurate and complete Project Plan, and then for implementing the project. The Project Scientist (or Technologist) is responsible for developing and implementing the Science and Technical Science Requirements Document.

1.6.4 The Headquarters Office of the Chief Engineer (OCE) is responsible for conducting independent reviews and for leadership of the Agency's independent assessment (IA) activities, including leadership of the Independent Program Assessment Office (IPAO) and the coordination of policy development and implementation with Center Systems Management Offices (SMOs), all of which conduct reviews. The OCE will work in coordination with the appropriate MDAA or MSOD to establish and execute independent review within the Mission Directorate or Mission Support Office. These reviews are expressly designed to provide Program and Project Managers with a source of unbiased examination and plainly articulated feedback. Review teams have a responsibility to provide Program and Project Managers with candid results, and to provide senior managers with a fair assessment of a program's or project's planning and execution. The OCE is available to answer program and project management questions, and training is available to ensure that NASA's procedures are thoroughly communicated and the necessary management skills are developed.

1.6.5 The NASA Chief Engineer, per NPD 1000.3, *The NASA Organization,* is the Technical Authority for the Agency, and is responsible for leading and implementing Independent Technical Authority (ITA) policies and practices per NPD 1240.4, NASA Technical Authority, and NPR 1240.1, *NASA Technical Warrant System.* The NASA Chief Engineer implements ITA through experts, called Technical Warrant Holders (TWHs), who are issued warrants delegating the technical responsibility, accountability, and authority to establish technical requirements so as to ensure safe and reliable operations. The purpose of ITA is to establish the technical baseline, once the high-level requirements have been defined by the Mission Directorate (or Mission Support Office). Accordingly, the TWH approves technical requirements and any variances thereto. For matters involving safe and reliable operations as related to human safety, the ITA has final decision authority. The Program or Project Manager, Independent Technical Authority, and Safety and Mission Assurance all have important roles with respect to safety, reliability, and quality of the products generated by a program or project. The individual perspectives that these three parties provide throughout a program or project establish a balance that ensures that all aspects of safety and reliability are adequately addressed.

1.7 Overview of Management Process

1.7.1 The management of programs and projects is a four-part process consisting of:

a. Formulation - the assessment of feasibility, review, and analysis of concepts, initial risk reduction activities,

assembly of teams, development of operational concepts and acquisition strategies, establishment of high-level requirements and success criteria, selection of an ITA (if applicable), and preparation of detailed plans, budgets, and schedules that are essential to the success of a program or project.

b. Approval - the ongoing effort by responsible officials above the program and project management level to review plans and performance at key milestones and authorize continuation of the effort and progression to the next phase.

c. Implementation - the execution of approved plans for the development and operation of products and services, and the establishment of required control systems to ensure performance to plan.

d. Evaluation - the ongoing independent (i.e., outside the advocacy chain of the program or project) evaluation of the performance of a program or project, and incorporation of the evaluation findings to ensure adequacy of planning and execution according to plan.

1.7.2 To initiate individual programs, a responsible manager, usually designated by the MDAA or MSOD, must first prepare a program Formulation Authorization Document (FAD). A MDAA (or MSOD) has the authority to invest resources in the preparation of a program FAD. The FAD authorizes a Program Manager to initiate the planning of a new program and to perform the analyses required to formulate a sound Program Plan that contains project elements, schedules, risk assessments, and budgets. Because the creation of a new program represents a major commitment of the Agency, the FAD requires the approval of the MDAA (or MSOD). The program FAD does the following:

a. Contains a statement of purpose for the proposed program.

b. Defines the relationship between the program and the Agency's strategic goals and objective.

c. Establishes the scope of work to be accomplished, including identification of all planned products and services to be delivered, highlighting those elements that are critical to achieving the stated purpose of the program.

d. Provides an initial estimate of required resources and associated high-level schedule that includes a description of reviews required during formulation.

e. Identifies program participants (with special emphasis on relationships with organizations external to NASA, including proposed international partnerships).

1.7.3 Another key management document is the Program Commitment Agreement (PCA). The PCA is the agreement (essentially a contract) between the MDAA (or MSOD) and the NASA Deputy Administrator that documents the program's objectives, technical performance, schedule, cost, safety, and risk factors, internal and external agreements, and independent reviews. The PCA can be considered an executive summary of the Program Plan. Project implementation within a program is not authorized until a signed PCA is on file within the OCE. A Project Manager developing a new Project Plan is acting within the structure of the Program Plan and under the authority of the PCA.

1.7.4 To ensure the appropriate level of management oversight, NASA has established a hierarchy of Program Management Committees (PMCs). One of these committees, referred to as the Governing PMC (GPMC), is assigned primary responsibility for evaluating the cost, schedule, safety, and technical content of a particular program or project to ensure that it is meeting the commitments specified in the key management documents described above. The Agency PMC is responsible for evaluating proposed programs, assessing the performance of approved programs and projects, and providing recommendations to the Deputy Administrator. The Agency PMC convenes two types of meetings: (1) decision review meetings, in which recommendations are made to the Deputy Administrator regarding whether a proposed program or project will be authorized to proceed, and (2) Quarterly Status Reports (QSRs), in which the Agency PMC is updated by each Mission Directorate (and Mission Support Offices for designated programs and projects).

1.7.5 Other PMCs are established and executed by Mission Directorates, Mission Support Offices, and Centers. As programs and projects are approved and move into implementation, the Agency PMC may delegate evaluation authority/responsibility to one of these PMCs. That decision is documented in the PCA and Program Plan. Regardless of where the GPMC resides (e.g., Agency, Mission Directorate, Mission Support Office, or Center), it is responsible for evaluating the program or project, and for providing recommendations and direction to the Program or Project Manager and, as applicable, the Center Director. For projects, the GPMC is determined by the established project category. This relationship is shown in Table 1-2.

Project Category (From Table 1-1)	Governing PMC	Review Team Lead
Category I	Agency PMC	IPAO
Category II	Mission Directorate PMC (or MSOD)	IPAO and/or SMO
Category III	Center PMC*	SMO**

* or Mission Directorate SMC for basic and applied research
** or external scientific exports for basic and applied research

Table 1-2 Governing PMCs and Review Team Leads

1.7.6 A NASA-led independent review process has been designed to help assure mission success and the continued ability of programs and projects to meet commitments. This review process is described in more detail in Section 2.5 for programs and in Section 3.5 for projects. Results of these independent reviews are reported to the Agency, Mission Directorates, Mission Support Offices, Center PMCs and, where appropriate, the NASA Science Council, the Mission Directorate Science Management Council (SMC), and the Institutional Committee (IC). Table 1-2 establishes the lead Independent Assessment (IA) organization based on project category. Figure 1-2 depicts the relationship of mission and mission support investments, and the oversight of these programs and projects. Programs can contain some or all of the product lines defined in Section 1.4.

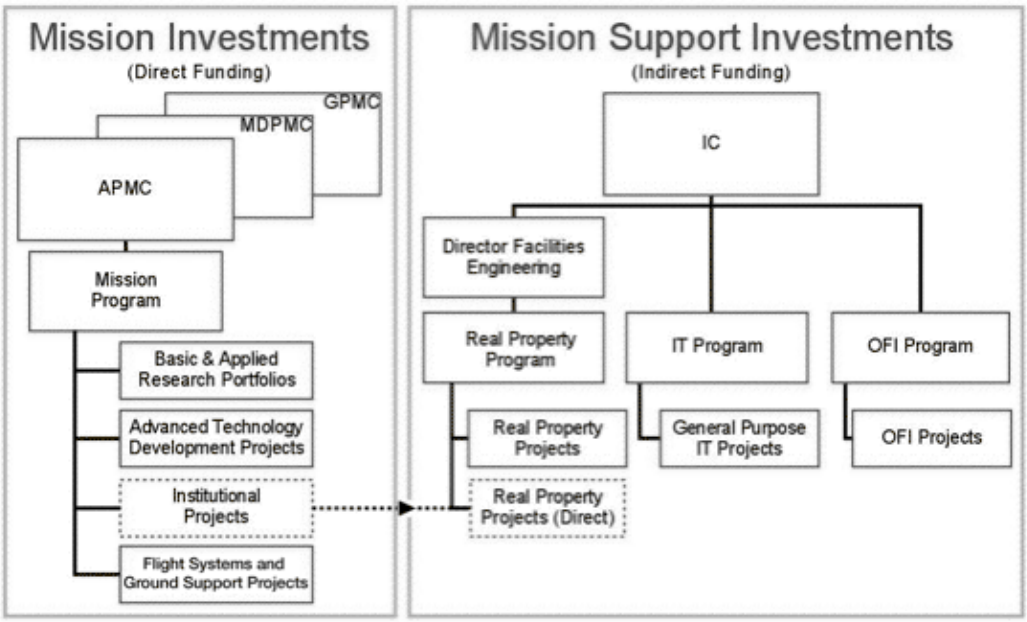

Figure 1-2. Program and Project Oversight Structure

1.7.7 Another step to improve direct interaction between Program and Project Managers and senior Agency managers is the use of an Agency wide electronic "dashboard" (currently Erasmus) to report program and project status in terms of cost, technical, schedule, management, safety, and performance parameters. This ensures that consistent status information is communicated across management interfaces. [17]

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[17] Anyone within NASA can access the system to review the status of any Theme or program, and that of many projects.

1.8 Document Structure

1.8.1 Requirements for programs organized into the four-part management process of paragraph 1.7.1 are detailed in Chapter 2. Some institutional programs have modified program management requirements identified in Chapter 7.

1.8.2 Common requirements for projects organized into the four-part management process of paragraph 1.7.1 are detailed in Chapter 3. Project Managers must also refer to their respective investment area chapter for product line-specific requirements. Flight systems and ground support Project Managers, for example, will use Chapters 3

and 6. Basic and applied research projects and some institutional projects have modified project management requirements identified in Chapters 4 and 7, respectively.

1.8.3 Each of the following chapters has the same structure and each discusses the context for the four-part management process: formulation, approval, implementation, and evaluation. In the larger chapters, both formulation and implementation are broken into major activities, for example, systems engineering. These major activities have separate subsections that convey the purpose of the activity and the activity requirements. (See Figure 1-3.) This document recognizes that many of the major activities, like systems engineering, are undeniably lifecycle processes. It also recognizes that these major activities have detailed process requirements that are fulfilled at different stages of the project cycle--that is, the tasks and focus of the activity may shift through the project cycle. Consequently, for expositional purposes, this document identifies the activity requirements under the more applicable section.

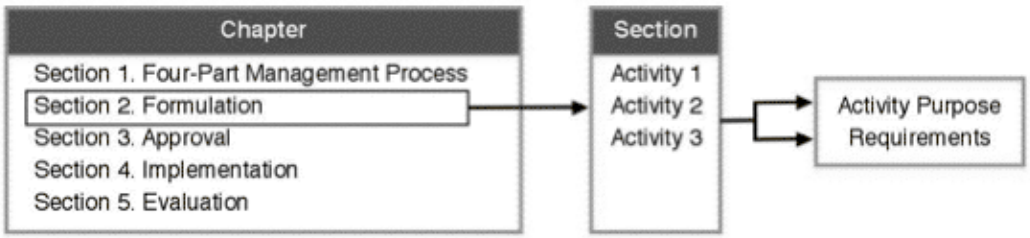

Figure 1-3. Chapter Structure with Detail for Formulation Section

1.8.4 Applicable controlling legislation, circulars, policy directives, and procedural requirements relevant to program and project management activities are cited in Appendix L.1. Although the applicable documents may not be specifically cited in the text of this document, they are provided as the authoritative sources of policy and requirements on the relevant subject. Other references are provided in Appendix L.2 for information only.

| TOC | Preface | Change_Log | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | AppendixA | AppendixB | AppendixC | AppendixD | AppendixE | AppendixF | AppendixG | AppendixH | AppendixI | AppendixJ | AppendixK | AppendixL | AppendixM | AppendixN | AppendixO | ALL |

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