

NAO 216-108

REQUIREMENTS MANAGEMENT

Iss: 10/31/05; Eff: 10/24/05

SECTION 1. PURPOSE AND SCOPE.

.01 This Order establishes the National Oceanic and Atmospheric Administration's (NOAA) policy for managing mission requirements from identification and validation through solution selection and execution (including major project assessment). The policy identifies roles and responsibilities and authorizes the issuance of related guidance for implementation.

.02 The goal of the Requirements Management policy is to execute NOAA's responsibilities:

- a. to satisfy the highest priority needs of NOAA's customers;
- b. to improve resource utilization;
- c. to continuously and systematically assess internal and external environments to anticipate future opportunities and challenges; and
- d. to strengthen the implementation of enterprise-wide solutions.

.03 With this policy NOAA will:

- a. establish and maintain a mission requirements baseline (this is accomplished in the Planning phase of the Planning, Programming, Budgeting and Execution System (PPBES) and will provide clear direction for remaining phases);
- b. establish a validation process that engages management at the appropriate level;
- c. improve portfolio management during all phases of the PPBES through a NOAA-wide decision-making process; and
- d. provide a mechanism to ensure solutions continue to meet requirements through their life cycle.

.04 This policy applies to all NOAA activities. Specific types of projects (e.g., facility construction and repair, major systems acquisition, and Information Technology project acquisition) are subject to additional polices and guidelines.

.05 This policy supports applicable Department of Commerce (DOC) and Office of Management and Budget (OMB) policies for acquisition of major capital assets and provides flexibility to tailor oversight for projects not meeting this definition.

SECTION 2. BACKGROUND.

Federal guidance mandates efficient and effective use of resources tied to an agency's mission, goals, outcomes, and objectives. The Federal Acquisition Streamlining Act of 1994, Title V, requires agencies to establish measurable cost, schedule, and performance goals for all major acquisition programs. The OMB Circular A-11 requires that new investments be justified on the basis of addressing shortfalls, and that projects must demonstrate satisfactory progress towards cost, schedule, and performance goals.

SECTION 3. POLICY.

.01 NOAA's policy is to validate mission requirements and establish consistent and systematic, agency-wide reviews to ensure optimal solutions are identified for achieving desired outcomes and results. The following guidelines apply to the identification and validation of mission requirements and the selection of solutions.

a. Mission Requirement Identification. Any NOAA organizational unit or individual may propose adding a new NOAA mission requirement, modifying an existing validated mission requirement, or removing a mission requirement. The mission requirements are driven from internal or external sources. The mission requirements will identify user needs, enabling science and technology developments, and/or other opportunities that support NOAA's mission and goals. Program managers shall review and propose additions, deletions, or modifications to the existing mission requirements baseline as part of the annual planning phase of PPBES.

b. Mission Requirements Validation. All mission requirements will be reviewed annually in the planning phase of the PPBES. Proposed new mission requirements will be validated through a review to ensure they are derived from a compelling requirement driver, are consistent with NOAA's mission, have clear benefits and performance impacts with identified customers and stakeholders, and are scientifically and technically feasible. Mission requirements will be removed when it is determined they are no longer responsive to a compelling requirement driver.

c. Shortfall and Alternative Identification. As part of the annual planning phase of PPBES, program managers shall assess the ability of their program to meet mission requirements, identify existing or emerging shortfalls in terms of performance requirements, and propose alternative solutions to address those shortfalls. The proposed alternatives are developed further in the programming and budgeting phases of PPBES into prioritized plans, projects, and

programs. The appropriate solution, or set of solutions, to an identified shortfall is selected and resources are determined, funded, and implemented through NOAA's PPBES.

.02 The PPBES provides an annual review and assessment of the progress toward implementing NOAA's mission. The progress of selected solutions toward eliminating performance shortfalls is evaluated and changes in scope and direction are proposed, as appropriate. Major projects (i.e., those that require significant resources and have high risk and external visibility) require more periodic and thorough corporate review and assessment than the annual PPBES, and will follow the guidelines below to ensure common application of the requirements management policy across NOAA.

a. Project Management. All projects (major and non-major) will have a designated project manager. The project manager is responsible for translating mission requirements into a project to ensure a satisfactory solution is delivered. Mission requirements for an existing project should not change during the course of project execution; if new requirements emerge they will be validated as specified in this Order. The project manager shall establish and maintain a process to manage change throughout the project's life cycle. The project manager is responsible for preparing documentation to support the continuous and systematic review of progress as it relates to Key Decision Points (KDPs) and meeting mission requirements.

b. Key Decision Point (KDP) Reviews. Reviews will be conducted at the end of each project phase to ensure project deliverables continue to meet valid mission requirements. A KDP represents the completion of a project phase and is commonly marked by a review of significant deliverables and project performance. KDP reviews determine whether a project should proceed to the next stage. During the review, mission requirements will be confirmed and the project's ability to progress within the defined scope will be assessed. Multiple KDP reviews may be combined into one review as appropriate for projects.

SECTION 4. RESPONSIBILITIES.

.01 The Under Secretary of Commerce for Oceans and Atmosphere, the Assistant Secretary of Commerce for Oceans and Atmosphere, and the Deputy Under Secretary for Oceans and Atmosphere provide top management support for implementation of this Order. The Under Secretary approves the NOAA Programs' budget submissions and determines whether a major project may proceed to the next phase of development. The Deputy Under Secretary approves recommendations for major project designations. In addition, the Deputy Under Secretary may designate any project as a major project in accordance with criteria covered in Section 6.06 of this Order. For each major project, the Deputy Under Secretary selects a Council or the Transition Board to provide oversight and approves the project manager.

.02 The NOAA Executive Council (NEC) provides information and counsel to the Under Secretary throughout the requirements management process.

.03 The NOAA Executive Panel (NEP) provides information and counsel to the Deputy Under Secretary and the NEC throughout the requirements management process.

.04 The Assistant Administrator for Program Planning and Integration (PPI) will:

- a. conduct an annual requirements review to determine mission requirement additions, modifications, and removals; to solicit input from Line and Staff Offices, Goal Teams, Councils, and the Transition Board; and to recommend mission requirements changes to the NEP;
- b. assign responsibilities for validated mission requirements to a Mission Goal or Sub-Goal Team Lead;
- c. manage the identification of major projects; recommend the appropriate council for review; and, for matrixed programs, endorse the proposed project manager; and,
- d. issue guidance for implementation of this policy.

.05 NOAA Councils and the Transition Board will:

- a. provide cross-cutting assessments of proposed additions or modifications to mission requirements, the removal of mission requirements, or the identification of major projects, and will forward recommendations to PPI; and
- b. review assigned major projects at and between Key Decision Points and forward recommendations to the NEP on whether to proceed to the next project phase.

.06 Mission Goal and Sub-Goal Team Leads will:

- a. provide recommendations to PPI on mission requirements proposed by assigned programs;
- b. assist in the identification of major projects and, as appropriate, of project managers; and
- c. participate in PPBES and KDP reviews.

.07 The Director, Office of Program Analysis and Evaluation (PA&E), will:

- a. support the validation of proposed mission requirements and the determination to modify or remove mission requirements;
- b. assist in the identification of major projects; and
- c. provide the NEP and NEC with NOAA program and project analysis on which to base decisions at KDPs.

.08 NOAA Chief Financial Officer will provide the NEP and NEC with an assessment of a selected solution's or project's ability to achieve mission requirements within defined scope and within NOAA's Financial Program.

.09 NOAA Line and Staff Offices will:

- a. coordinate with Goal Team Leads on proposed mission requirement additions, modifications, and removals;
- b. manage selected solutions, and execute programs and projects within assigned organizational scope using decision criteria for non-major projects similar to those required for major projects, providing recommendations as part of annual PPBES;
- c. coordinate on identification of major projects and, in coordination with Goal Team Leads and program managers, nominate project managers for major projects to the Deputy Under Secretary;
- d. participate in major project KDP reviews within assigned organizational scope; and
- e. assign/approve project managers in conjunction with program managers and Goal Team Leads as appropriate for non-major projects.

.10 Program Managers will:

- a. prepare program charters and baseline assessments that:
 - 1. identify the mission requirements;
 - 2. analyze and propose modifications to the validated mission requirements baseline;
 - 3. assess the ability of the program to meet validated mission requirements; and
 - 4. identify existing or emerging shortfalls in terms of performance requirements and propose solutions to address shortfalls; and
- b. assist in the identification of major projects and, as appropriate, project managers;
- c. participate in the development of program and project plans to ensure mission requirements are addressed; and
- d. review assigned major projects at KDPs and, in conjunction with applicable Goal Team Leads and Line/Staff Office(s), make recommendations.

.11 Project Managers will:

- a. prepare and coordinate the project plan;
- b. provide required project information for PPBES;

c. execute assigned projects within defined scope and performance goals, explaining variances as necessary; and

d. prepare and present KDP reviews.

.12 Detailed responsibilities of the officials and entities identified in Section 4 of this Order will be described in the NOAA Business Operations Manual.

SECTION 5. SUPPLEMENTAL GUIDANCE.

.01 The NOAA Business Operations Manual provides detailed descriptions of the processes that support this Order. Those processes apply to all NOAA.

.02 The NOAA Acquisition Handbook prescribes the policies, procedures, and guidelines for NOAA's acquisition program. The Handbook also is intended to provide daily guidance and instructions to all NOAA personnel having frequent contact with either developing or processing acquisitions, including acquisition aspects of major and non-major projects.

SECTION 6. DEFINITIONS.

.01 Capital Asset: Defined by OMB Circular A-11 as "land, structures, equipment, intellectual property (e.g., software), and information technology (including IT service contracts) that are used by the Federal Government and have a useful life of two or more years."

.02 Development: The systematic application of knowledge or understanding, directed toward the production of useful materials, devices, systems, or methods, including design, development, and improvement of prototypes and processes to meet specific requirements.

.03 Full Operational Capability (FOC): The full attainment of the specific characteristics of the product or service approved at KDP-4. FOC delivers the ability to use effectively a NOAA service, product, and/or system when operated by a trained, equipped, and supported workforce.

.04 Key Decision Point (KDP): A significant milestone in project implementation documenting an agency investment decision. The KDPs are as follows (for systems acquisitions, Department Administrative Orders (DAOs) may provide more specific requirements or definitions):

a. KDP-1--Needs Identification and Definition: identification and definition of shortfalls, their relative priority within NOAA, and the general magnitude of life cycle costs that may be needed to address them;

b. KDP-2--Solution Alternatives Identification: selection of one or more alternatives to be advanced for further analysis (including research and pilot testing);

- c. KDP-3--Solution Selection: selection of an approach, including project scope, review procedures, and commitment as appropriate to full-scale research and development; and
- d. KDP-4--Acquisition/Implementation Approval: commitment to full acquisition and/or operational implementation with explicit approval of baseline objectives and project scope to include life cycle cost, schedule, and performance goals.

.05 Life Cycle Cost: Defined by OMB Circular A-11 as “The overall estimated cost, both government and contractor, for a particular project alternative over the time period corresponding to the life of the project, including direct and indirect initial costs plus any periodic or continuing costs of operation and maintenance.” Life Cycle Costs includes the total cost to the government over the full project life, including (as applicable) the cost of research and development, investment in mission and support equipment (hardware and software), initial inventories, training, data, facilities, operations, maintenance, support, and retirement or disposal.

.06 Major Project: Any project with life cycle costs greater than the NOAA-established threshold (currently \$250 million FY 2005 constant dollars), unless otherwise directed by DOC or higher authority. The life cycle cost determination should be computed over the service life for physical assets and over 10 years for other projects. The Deputy Under Secretary may also designate any project as a major project based on any of the criteria found in OMB Circular A-11, regardless of its life cycle costs. These criteria include:

- a. importance to the agency's mission;
- b. high development, operating, or maintenance costs;
- c. high risk;
- d. high return; and/or
- e. significant role in the administration of the agency's programs, finances, property, or other resources.

.07 Mission Requirement: A validated NOAA responsibility resulting from one or more requirements drivers. Mission requirements should be understandable, outcome-oriented, concise, and actionable, and should identify the need but not prescribe specific solutions.

.08 Non-Major Project: Any project that does not meet the definition of a major project.

.09 Program: An organizational unit within NOAA's strategic planning structure that aggregates similar mission requirements, works with other programs to address broad mission

requirements, and aligns activities to achieve NOAA's goals. A program may provide oversight and integration for a number of related projects or may support a broad agency project.

.10 Project: Any undertaking (e.g., research, assessment, prediction, acquisition, or stewardship effort) to create a service, product, system, and/or system upgrade in support of a validated NOAA Mission Requirement. A NOAA project is intended to address a shortfall within defined budget and schedule constraints and terminates when the service, product, or system achieves full operational capability (FOC), when the capability shortfall is resolved, or, in coordination with other programs, when directed by the program manager or higher authority.

.11 Project Manager: An individual formally assigned authority to lead and manage a project and who is accountable for achieving approved performance goals and delivering approved objectives within the project scope established at the most recent KDP.

.12 Requirements Driver: Legislation, regulation, Executive Order, policy decision, interagency or international agreement, or other official action that establishes a NOAA responsibility.

.13 Shortfall: The difference between current capabilities and additional capability needed to meet a mission requirement.

SECTION 7. REFERENCES.

.01 OMB Circular A-11, Preparation, Submission, and Execution of the Budget.

.02 DAO 208-3, Major Systems Acquisitions.

.03 DAO 201-45, Department Oversight of Major Systems.

.04 Federal Acquisition Streamlining Act of 1994.

.05 NOAA Acquisition Handbook, as authorized by NOAA Administrative Order (NAO) 208-1.

.06 NAO 208-3, Major Systems Acquisitions (see Section 8 of this Order).

.07 NAO 216-105, Transition of Research to Application.

.08 NAO 217-104, Facility Capital Planning and Project Management Policy.

.09 NOAA Strategic Plan (most recent version).

.10 NOAA Business Operations Manual.

SECTION 8. EFFECT ON OTHER ISSUANCES.

This Order includes policy and procedural changes that impact information in NAO 208-3, Major System Acquisitions, dated September 21, 1994, as amended. The Acquisition and Grants Office intends to update NAO 208-3, and will include information directing those interested in pursuing a major system acquisition to abide by the policy and procedural requirements of this Order as a precursor to initiation of the procurement. Until such time as NAO 208-3 has been updated, the Acquisition and Grants Office will ensure that parties pursuing major systems acquisitions have complied with the requirements of this Order prior to such acquisitions.

Under Secretary of Commerce
for Oceans and Atmosphere

Office of Primary Interest:
Program Planning and Integration