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**NASA**  
**Procedural**  
**Requirements**

**NPR 3010.1**  
Effective Date: September 09,  
2003  
Expiration Date: September  
09, 2008

**COMPLIANCE IS MANDATORY**

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## **Strategic Workforce Management Process**

**Responsible Office: Office of Human Capital Management**

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# Preface

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## P.1 Purpose

To ensure long-term mission success, a key human capital goal of NASA is planning for the optimal utilization of the Agency's human resources, including transitions between project assignments and maintenance of workforce competencies. This goal shall be accomplished through the NASA Strategic Workforce Management Process.

**P.1.1 Long-Term Workforce Planning.** NASA shall plan for its future workforce requirements as part of its strategic planning and integrated budget development processes. Annually, the Agency shall validate current core competencies, identify the workforce competencies required for future mission success, and provide projections of human resources competencies and quantities for programs and functions 5 years into the future. These projections shall be used to help plan for recruitment, redeployment, training and development, succession, and other human capital management processes. Additionally, NASA shall anticipate and document workforce requirements extending 6 to 10 years into the future.

**P.1.2 Project Workforce Transition.** NASA shall establish civil service workforce transition practices that allow organizational flexibility in accommodating workforce changes associated with significant project adjustments, such as terminated, newly started, and/or rescoped projects. The Agency shall appropriately balance program and project milestone performance, mission capability, Full-Time Equivalent (FTE) levels, workforce competencies, diversity, and employee needs. The Agency shall acknowledge and attempt to ameliorate civil service workforce transitional issues when assigning work and shall maintain a balance between permanent and nonpermanent employment to provide appropriate flexibility in the civil service workforce.

**P.1.3 Continual Workforce Renewal.** NASA's workforce is its greatest strength. The civil service workforce must be constantly infused with diverse new talent, challenging work, and new learning opportunities. To maintain the skilled workforce required to successfully meet current requirements and timely prepare for future requirements, the Agency goal is to hire at a rate that is approved in the budget, with entry-level hiring constituting at least one-third of full-time permanent hires. For the existing civil service workforce, NASA shall tailor training and development activities that support program and project needs and shall provide work experiences, including opportunities for hands-on work in support of in-house development efforts, where appropriate, that build capabilities necessary to support strategic requirements.

**P.1.4 Total Workforce Balance.** NASA shall establish and implement workforce strategies to achieve optimal long-term workforce assignment flexibilities, including an appropriate mix of civil service workforce and other workforce components. The civil service workforce shall include a mix of permanent employees, term employees, temporary employees, and other innovative employment arrangements. The contractor workforce and approved partnering arrangements shall also be appropriately integrated into the broader workforce strategy consistent with Federal and Agency policy.

## P.2 Applicability

a. This NPR is applicable to NASA Headquarters and NASA Centers, including Component

Facilities.

b. This directive does not apply to the Office of the Inspector General (IG), which has independent authority pertaining to the management of IG human resources under Public Law 95-452.

## **P.3 Authority**

- a. NPD 3010.1, Strategic Workforce Management
- b. 42 U.S.C. 2473 (c)(1), Section 203(c) of the National Aeronautics and Space Act of 1958, as amended.
- c. 5 U.S.C., Parts II and III, Subparts A through G.

## **P.4 References**

- a. NPD 1392.1, Conduct of the NASA Education Program
- b. NPD 3000.1, Management of Human Resources
- c. NPR 3300.3, Appointment of Personnel To/From NASA.
- d. NPD 3310.1, Distinguishing Between Contractor and Civil Service Functions
- e. NPR 3330.1, NASA Career Transition Assistance Program (CTAP)
- f. NPR 3335.1, Internal Placement of NASA Employees
- g. NPR 3351.1, Reduction in Force for NASA Employees
- h. NPD 3410.2, Employee and Organizational Development
- i. NPD 3713.2, Federal Equal Opportunity Programs of NASA
- j. OMB Circular A-11, Preparation, Submission, and Execution of the Budget, dated 2003
- k. OMB Circular A-76, Performance of Commercial Activities, dated 2003
- l. President's Management Agenda, dated 2002

## **P.5 Cancellation**

None.

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**/s/ Vicki A. Novak**  
**Assistant Administrator for Human Resources**

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# CHAPTER 1: Long term Workforce planning

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1.1 The civil service workforce shall be managed strategically through the alignment of competencies, recruitment, training and development, and the future intake pipeline as influenced by NASA educational programs and affirmative employment programs with NASA's Strategic Plan.

## 1.2 Strategic Workforce Analysis

1.2.1 The workforce planning process must be aligned with the strategic plan, Enterprise, program and Center implementation plans, and the budget and performance planning processes to ensure the optimal contribution of the workforce to mission success. The Agency's human capital plans should be based upon analyses of the following:

- a. Workforce demographic statistics and trends
- b. Attrition analysis
- c. Attrition forecasting
- d. Competency-based assessments (including minimum levels of civil service-based competencies that will ensure continued workforce capacity for effective performance and management of programs and functional areas)
- e. Five-year projections of program civil service FTE and competency requirements
- f. Longer term projections of workforce requirements
- g. Cost and projections for available funding
- h. Alignment with other Federal initiatives
- i. Agency affirmative employment plan and diversity gaps
- j. Labor market trends and demographic statistics
- k. Availability of competencies from commercial and academic sources and appropriateness of obtaining them from these sources.
- l. Program implementation plans and their aggregate impact on Center work strategies

### 1.2.2 Workforce Analysis and Forecasting Support

1.2.2.1 The Office of Human Resources shall provide civil service workforce analysis, planning, and forecasting models to all levels of the NASA organization.

1.2.2.2 These tools include an analysis engine that pulls together civil service workforce status, hires and losses, and demographics information for multiple years for NASA Headquarters and all Centers. A forecasting engine will project retirement and nonretirement losses 5 years into the future for any segment of the civil service workforce.

1.2.2.3 The Office of Human Resources, when requested, shall perform additional analyses.

## 1.3 Competency Management

1.3.1 Competencies deemed necessary for mission success shall be identified. The NASA Competency Management System (CMS) shall be used to monitor civil service competency strength in all required competencies, gather the competency strength requirements of projects and service organization, and identify gaps. Recruitment efforts at NASA Headquarters and all Centers shall be guided by this information.

1.3.2 Agency-level Competency Managers.

1.3.2.1 Agency-level competency managers shall be designated for the following areas:

- a. Acquisitions
- b. Human Resources Management
- c. Diversity Management
- d. Financial Management
- e. Resources Management
- f. Information Technology (General Purpose)
- g. Information Technology (Mission-Specific)
- h. Facilities Management
- i. Environmental Management
- j. Security
- k. Safety and Mission Assurance
- l. Leadership
- m. Program/Project Management
- n. Technology
- o. Engineering
- p. Scientific Research
- q. Operations
- r. Education
- s. Legal

1.3.2.2 Agency-level competency managers shall maintain a cognizance of Government and industry best practices as they apply to the NASA workforce. The Office of Human Resources, working in conjunction with the competency managers, shall assess Agencywide information about current and future workforce competency strengths and requirements.

1.3.3 Center-level competency managers.

1.3.3.1 Center Directors shall designate Center competency managers for those competencies they deem critical to their assigned mission roles and responsibilities.

1.3.3.2 Center competency managers shall coordinate with and support the Agency competency managers, ensuring that critical civil service competency strengths and requirements at the Center are integrated into the Agency's planning.

## **1.4 Strategic Workforce Planning Meetings**

1.4.1 As a critical element of the Agency's strategic planning and budget development process, the Office of Human Resources shall facilitate Agency-level assessment and planning meetings. Generally held annually in advance of corporate issuance of the Agency's program operations planning guidelines, these meetings shall be chaired by the Associate Deputy Administrator for Institutions and Asset Management and the NASA Chief Human Capital Officer.

1.4.2 These meetings will have human capital representation from the Institutional Program Offices (IPO), Enterprises, Centers, and the Office of Human Resources. Participants shall consider issues and information related to strategic alignment, competency management and development, recruitment, retention, demographics (including diversity), FTE available for new work, workforce component mix, and other strategic issues. These meetings shall identify requirements or initiatives stemming from information maintained in human resource databases, workforce review efforts, and collected information about other workforce components to form the basis for a consolidated synergistic approach to workforce planning.

1.4.3 All participants shall bring relevant information to the meeting. Of particular importance, the Office of Human Resources shall present aggregate Agency-level human capital performance analysis. The Enterprises and IPOs shall provide specific workforce and competency issues and will present their projections of future program staffing requirements in terms of FTE and competencies for coordination, validation, adjustment, and identification of issues to be worked between responsible offices. Enterprise and IPO Program Operating Plan guidance to the Centers for outyear staffing shall be coordinated at a specific Strategic Workforce Planning meeting chaired by the Associate Deputy Administrator for Institutions and Asset Management, prior to corporate issuance of the planning guidelines.

1.4.4 Guidance for outyear staffing planning shall be generated from discussions and decisions made at the meeting and will be available for inclusion in the Program Operating Plan process.

1.4.5 Information from the strategic workforce planning meetings shall be used by the Offices of Human Resources and Equal Opportunity Programs as input to the Strategic Human Capital Implementation Plan, the Affirmative Employment Plan, the Disabled Veterans Affirmative Action Plan, and the Federal Equal Opportunity Recruitment Plan.

## **1.5 Recruitment**

1.5.1 Centers and Headquarters Offices shall collaborate on strategic recruitment planning to ensure that the competencies in the civil service workforce will be those needed for current and future mission success and that the diversity of the workforce reflects the diversity of the Nation.

1.5.2 At the Agency level, the Enterprises, Functional Offices, and the Offices of Human Resources, Education, and Equal Opportunity Programs shall collaborate closely with each other and with the Centers in planning and information-sharing activities.

1.5.3 Vacancies that occur at the Centers shall not be refilled without the Center first considering the

following criteria:

- a. Whether the position, as constituted, is required to meet current or future competency requirements.
- b. Whether other Agency employees may be redeployed.
- c. Whether a civil service position is required and appropriate or whether the requirement can be met through an alternative approach.
- d. When a civil service position is required, whether a permanent or non-permanent appointment type best meets the mission and workforce balance requirements.

## **1.6 Strategic Workforce Development**

1.6.1 Planning for major employee development programs shall take into account the input from Enterprises, Functional Offices, the Centers, the competency managers, the strategic workforce planning meetings, and ongoing workforce analysis and competency management system requirements forecasts.

1.6.2 Centers shall ensure that Center-based employee training and development programs build needed competencies, including efforts to effectively incorporate knowledge sharing, mentoring and in-house work experiences where appropriate. Agencywide employee training and development programs shall also build upon needed competencies.

## **1.7 Entry-Level Pipeline**

1.7.1 The Office of Education shall develop or modify programs for students to inspire them to pursue a course of study that will equip them with the competencies that NASA will need in the future.

1.7.2 Centers shall work with the Office of Education and the Office of Equal Opportunity Programs to ensure that NASA's education programs at all levels match a diverse population of students with projected civil service workforce needs.

## CHAPTER 2: Project Workforce Transition

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2.1 NASA's goal is to minimize sudden impacts to employees and to Center General and Administrative (G&A) rates during reallocation of project personnel. Various funding and management scenarios have been developed to accommodate employees proposed for reallocation. These scenarios are discussed in the Full Cost Implementation Guide issued by the Chief Financial Officer.

2.2 Each Center must make every effort to reassign employees that are available for new work to funded projects that require additional or replacement FTE. Reassignments must be made as rapidly as possible. The gaining projects shall pay the salaries, benefits, and other supporting costs for reassigned FTE.

2.3 Where it is not possible to effect the rapid reassignment of employees that are available for new work, Centers shall initiate other positive actions. These actions include retraining, internal placement efforts, active brokering with Enterprises, efforts to assist individuals to relocate or telecommute to other Centers, and other appropriate actions. Centers must communicate in a timely manner all new or refocused work requirements to individuals whose positions may be impacted.

2.4 Centers must first look to solve FTE problems at the Center level. When the Centers find they cannot fully use all employees, they should escalate the issue to the Enterprise that managed the project from which these employees were released and coordinate with their IPO.

2.5 Where employees, available from a terminated or rescoped project, cannot be effectively transitioned to a new project or to G&A, the Enterprises and Centers shall work with the Agency Functional Offices to resolve the issue.

2.6 Concurrently with redeployment efforts, Centers shall identify those employees with competencies that are no longer needed at the Center and use human resources transformation tools to separate them from the Center or retrain them to perform competencies needed by the Center.

2.7 Human Resources transformation tools that should be employed throughout the process include targeted buyouts, early retirement, hiring restrictions, retraining, career transition assistance, contracts structured with incentives to hire civil service personnel, and, as a last resort, reduction-in-force procedures. See Appendix A.

# CHAPTER 3: Continual Workforce Renewal

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3.1 NASA's goal is to hire at a rate that successfully meets current requirements and proactively prepares the Agency for the future. Programmatic changes will require civil service FTE and intake changes. Throughout periods of programmatic adjustment, the Agency shall ensure a minimum number of new hires across the Centers, even while under pressure to reduce new hires.

3.2 The level (numbers), nature (e.g., occupations, competencies, and grade level), and type (e.g., permanent, term) of civil service hiring shall be based on workforce analysis that incorporates factors such as future program and project projections, workforce demographics, attrition patterns, competency assessments, and labor market trends.

3.3 Significant downward adjustments to Center FTEs and hiring can result from program and project termination and descoping. The project workforce transition process cushions sudden impacts on FTE levels, and Centers shall use this flexibility in combination with aggressive redeployment and other actions to enable continual hiring, albeit at a reduced level.

3.4 Hiring shall be based on a level determined through the Strategic Workforce Management Process, available funding, and FTP/FTE controls. Hiring plans that require significant deviation from the last guidance issued shall require approval by the Associate Deputy Administrator for Institutions and Asset Management.

3.5 When growth in the civil service workforce is necessary to meet program requirements, Centers, as part of the execution year budget submittal, shall provide competency management analysis and a forecast of upcoming vacancies with the cost phasing data for inclusion in the IPO budget submittal for Agency consideration.

3.6 Centers shall maintain cooperative education programs and intern programs. For some functional areas, Agencywide intern programs may be appropriate. Centers, in conjunction with the Offices of Human Resources, Education, and Equal Opportunity Programs, shall collaborate on college recruitment efforts to enable Centers to hire entry-level candidates in filling at least one-third of their FTP vacancies.

3.7 NASA education programs that provide work experiences at Centers and that support graduate study in disciplines specifically relevant to pipeline requirements shall be linked to feeder mechanisms designed for entry into the civil service workforce.

# CHAPTER 4: Total Workforce Balance

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4.1 The NASA workforce shall require a mix of multiple components, including civil service, support contractors, other contractors, grantees, onsite employees of other agencies, detailees from Federal agencies and other entities, and other partnership arrangements.

4.2 Extensive information on civil service personnel shall be maintained in the human resources databases. Information on other workforce components shall be collected at least annually in conjunction with the inventory process required by the Federal Activities Inventory Reform Act of 1998. Enterprises, Centers, and competency managers should use this total workforce information when assessing competency strengths and preparing competitive sourcing plans.

4.3 Total workforce information will be considered at the annual Strategic Workforce Planning meeting.

4.4 Centers must continually assess the balance between in-house and other competency sources.

# CHAPTER 5: Responsibility

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5.1 The Administrator establishes overall Agency policy for strategic workforce management and the implementation of workforce changes associated with significant project adjustments.

5.2 The Associate Deputy Administrator for Institutions and Asset Management provides leadership in resolving workforce issues, where there is a coordination problem or issue across the Agency, including Enterprises, IPOs, Functional Offices, Centers, the Chief Financial Officer, and the Offices of Human Resources, Education, Procurement, and Equal Opportunity Programs; ensures a cyclic process that is integrated with budget formulation and Agency strategic planning; chairs strategic workforce planning meetings; and establishes controls on FTP civil service positions with the approval of the Executive Council.

5.3 The Assistant Administrator for Human Resources/Chief Human Capital Officer integrates the strategic workforce management efforts across the Agency, including activities carried out by Enterprises, IPOs, Functional Offices, Centers, the Chief Financial Officer, and the Offices of Human Resources, Education, Procurement, and Equal Opportunity Programs; works with Headquarters offices to identify competency managers; provides leadership and policy direction for acquiring and sustaining the Agency's civil service workforce, ensuring effective, integrated workforce planning and competency management; co-chairs the strategic workforce planning meetings; provides Agency-level leadership in resolving deployment issues and issues related to employees available for new work; and monitors FTE use on a monthly basis.

5.4 The Assistant Administrator for Equal Opportunity Programs provides leadership in ensuring that workforce diversity is a key element in the Agency's strategic workforce plans and in developing programs that assist Agency managers in improving representation of underrepresented groups, including people with disabilities, and strengthening respect for and appreciation of differences among all individuals as a force for increased productivity and improved work climate.

5.5 The Associate Administrator for Education considers future workforce competency requirements and provides leadership in ensuring that student programs augment the pipeline for the future workforce.

5.6 The Assistant Administrator for Procurement provides leadership and policy direction for competitive sourcing as a tool for strategic workforce management.

5.7 The Chief Financial Officer provides policy direction for full-cost management and the establishment of resources and financial management practices that facilitate strategic workforce management.

5.8 Enterprise Associate Administrators and Officials-in-Charge-of Functional Offices, consistent with the Agency Strategic Plan, develop annual plans that estimate the numbers and competencies of civil service staff required for programs and projects each year for 5 years into the future as well as a forecast of competencies that will be needed 10 years into the future. Additionally, they work with each other and with Centers to resolve issues related to project workforce transition.

5.9 IPOs, responsible for ensuring the viability of their respective Centers in keeping with NASA's Strategic Plan, perform an integrated assessment of the workforce necessary to the continued conduct of efficient functional operations. The IPOs work with other Enterprises, Centers, and Headquarters Functional Offices to plan long-term institutional strategies that provide alignment between programs, capabilities, and long-term goals, including appropriate level and kind of

in-house development efforts, where necessary, to ensure the ability to accomplish the mission. The IPOs work with other Enterprises, Centers, and Headquarters Functional Offices to resolve issues related to project workforce transition. The IPOs and their respective Centers, in executing the Agency's human capital plans, establish and implement workforce strategies, such as utilizing interns, Space Grant Fellows, Einstein Fellows, cooperative education programs and other programs which infuse new talent, to achieve optimal long-term workforce assignment flexibilities, including an appropriate mix of civil service workforce and other workforce components.

5.10 The Chief Engineer, in coordination with the Chief Information Officer continues to implement the Advanced Engineering Environment to allow engineers to work across geographic boundaries.

5.11 NASA Center Directors plan for their future workforce needs and base civil service intake and development efforts, as well as workforce component balance decisions, on strategic workforce requirements. Center Directors identify Center-level competency managers for those competencies critical to mission roles and responsibilities. Centers, with line manager and supervisor involvement as appropriate, take positive action with regard to employees that are available for new work and integrate core capability requirements into future workforce needs. Center Directors inform their IPO and the Agency Office of Human Resources whenever local efforts may prove insufficient to resolve project workforce transition issues.

5.12 Competency managers maintain cognizance of Government and industry best practices as they apply to their segment of the NASA workforce; analyze and assess information about current and future civil service competency strengths and requirements; provide input for strategic workforce planning meetings and Agencywide recruitment and development planning; and provide input to the annual Program Operating Plan guidance to the Centers for outyear staffing planning.

5.13 All program and project managers plan for their future workforce needs, for balance among workforce components, and for potential workforce transition costs related to significant project scope changes.

# CHAPTER 6: Measurements

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6.1 The Office of Human Resources will monitor key indicators and trends related to the strategic workforce management process.

6.2 Measurements will be reported regularly to Agency management.

6.3 Key indicators include, but are not limited to, the following:

- a. Degree of alignment between civil service competency strengths and mission goals (current inventory).
- b. Magnitude of gaps between civil service competencies and requirements (identified via attrition modeling and future program/project needs)
- c. Civil service FTE available for new work (via Center identification)
- d. Civil service workforce diversity trends
- e. Proportion of entry-level hires among FTP civil service hires.
- f. Training and development program statistics
- g. Civil service FTP and other employee type mix
- h. Balance and trend in the workforce component mix.

# Appendix A: Tools and Strategies to Address Project Workforce Transition

<b>If need for positions/competencies diminishes in certain areas</b>	<b>If need for positions/competencies increases in specific areas</b>
<p>Buyout Authority and/or Early Retirement Authority</p> <ul style="list-style-type: none"> <li>- Maximum use to create placement opportunities through attrition, <u>or</u></li> <li>- Targeted use to ameliorate competency imbalances</li> </ul>	<p>Buyout Authority and/or Early Retirement Authority</p> <p>Targeted use to decrease FTE in less critical competencies in order to provide room for increased hires in more critical competencies</p>
<p>Reassignments to funded vacancies within or between Centers as appropriate</p> <ul style="list-style-type: none"> <li>- Directed, as well as voluntary</li> <li>- Incentivized (relocation bonus)</li> <li>- Telecommuting via administrative tools or collaborate engineering environment to another Center without a relocation</li> </ul>	<p>Reassignments of employees available for new work</p> <ul style="list-style-type: none"> <li>- Directed, as well as voluntary</li> <li>- Incentivized (relocation bonus)</li> <li>- Telecommuting via administrative tools or collaborate engineering environment to another Center without a relocation</li> </ul>
<p>Controls on external hires and internal actions to create placement opportunities.</p>	<p>Strategic hiring, using appropriate incentives.</p>
<p>Retraining for future programmatic requirements.</p>	<p>Retraining in needed competencies.</p>
<p>Career Transition Assistance to facilitate attrition/placements.</p>	<p>Career Transition Assistance to facilitate attrition/placements.</p>
<p>Seek legislation to provide new incentives to encourage voluntary attrition and transfers.</p>	<p>Seek legislation to provide new flexibilities, authorities, and incentives to attract/retain a capable and diverse workforce.</p>
<p>When work transfers to contractor, structure contracts to provide NASA employees with incentives to seek employment with contractor.</p>	<p>Consider non civil service alternatives to meet requirements.</p>

Intergovernmental Personnel Act assignments to meet critical short term needs in lieu of civil service employment.	Increase use of Intergovernmental Personnel Act assignments to meet critical needs.
RIF--necessary only if all other strategies and tools are inadequate to handle Agency unfunded FTEs	?