

Statement of

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I am pleased to appear before the Subcommittee today to discuss the National Aeronautics and Space Administration's (NASA) use of recently enacted workforce flexibilities providing the agency with critical tools to facilitate our transformation and the implementation of the Vision for Space Exploration. NASA is grateful to the Congress, and in particular this Subcommittee for their continuing support and dedication to ensuring that the Federal Government is able to maintain a high performing civil service workforce.

NASA Recognizes the Human Capital Management Challenge

On January 14, 2004, the President set forth a new Vision for Space Exploration committing the United States to a long-term human and robotic program for exploring our solar system and beyond. Guiding NASA in the implementation of the Vision are the recommendations from the President's Commission on Implementation of United States Space Exploration Policy ("Aldridge Commission"). The Commission concluded that "fundamental changes must take place in how the nation approaches space exploration and manages the vision for success. This national effort calls for a transformation of NASA..." The Commission report presented specific findings and recommendations for a sustainable, affordable and credible program. In order to comply with the Commission's recommendations, NASA must implement a number of fundamental changes in how the agency approaches space exploration. NASA is undergoing a transformation to better align the workforce with the new Vision for Space Exploration and its mission requirements. Workforce reshaping is necessary to assure that we have the skills and competencies necessary to achieve the Vision.

The challenges we face as we transform the agency are not new. NASA has recognized for some time the internal demographics and external drivers that present a challenge to the Agency's human capital management. Some of these challenges – such as an aging workforce and a potential wave of retirements – we share with many other agencies. NASA's situation is exacerbated by the fact that scientists and engineers (S&E's) make up more than half our workforce and we compete for talent in a labor market that,

according to some studies, faces declining numbers of S&E graduates while demand for such talent in the public and private sector continues to increase.

Prior to the President's directive for the new Vision, the Agency actively engaged in a number of initiatives and activities to help us more strategically manage our workforce needs. We continue to enhance the Agency's Competency Management System and improve our leadership development and succession planning efforts. During the fall of 2003 and spring of 2004, NASA Centers collaborated in 19 corporate recruitment events on college campuses as part of our corporate recruitment efforts. These resulted in 96 diverse hires, using the Federal Career Intern Program authority, to address Agency-wide competency needs. In Fiscal Year 2004, NASA also made use of the Student Loan Repayment Program, providing student loan repayment benefits to 40 employees. Many of these individuals were in the contracting field, a competency NASA has identified as critical given that sound contract management is so crucial to success of the Agency's mission. Managers will continue to use this authority, as appropriate, to attract high quality graduates who otherwise might be inclined to accept more lucrative offers due to student loan debts.

To ensure that the agency's workforce competencies are aligned with our mission requirements, NASA completes an annual analysis in connection with our strategic planning and budget process. Using our Competency Management System (CMS) as the architecture and methodology for the analysis, we identify the competencies and full-time equivalent (FTE) levels needed for current and future program and project requirements; identify the competencies available in the workforce today; project the competencies that will be available in the future; and determine the difference—the gap (current or projected). The CMS is a tool that enables the agency to assess the existing level and depth of proficiency of individual, existing competencies within the workforce. By projecting future workforce needs, the CMS allows us to target competency shortfalls or surpluses to accomplish any workforce rebalancing needed to align the workforce with our mission requirements.

Using these analyses, we develop our recruitment, retention, development, and realignment strategies to address actual or projected competency gaps and surpluses in specific areas. For example, we may find that in some areas we need to strengthen our student programs and build the pipeline of talent. In other areas, targeted training and development may be indicated. And in other skill areas we may need to redeploy employees to programs in which their skills are better utilized. We will use the workforce flexibilities as appropriate to meet our recruitment, retention, and realignment objectives.

Using the New Flexibilities

The workforce flexibilities enacted in the NASA Flexibility Act, the Homeland Security Act, and the Federal Workforce Flexibility Act provide the agency with valuable tools to enhance the agency's recruitment, retention, and realignment activities. They provide versatile tools to address the Agency's workforce management needs. This versatility is

vitaly important, since different solutions are needed to address the variety of human capital challenges facing NASA – challenges that are shaped by each Center’s demographics, local labor market, and program/project needs. These authorities are helping us to address the workforce needs across the Agency.

Centers anticipating higher-than-normal attrition and/or the need to recruit hard-to-fill competencies are using the recruitment flexibilities and incentives to attract high quality candidates to NASA. The use of the individual flexibilities varies, since factors such as the category of position being filled (freshout, mid-level, or senior-level) and the circumstances pertaining to each specific recruitment action are important variables. Managers have recognized the value of tailoring their hiring strategies to the candidate, and develop their job offer incentive packages accordingly.

The recruitment flexibilities NASA has employed to help address its human capital needs include:

- Utilizing the recruitment, redesignation, and relocation bonuses as monetary hiring incentives when appropriate to attract exceptional talent to the Agency.
- Offering the enhanced annual leave provision and enhanced travel and relocation benefits to be extremely effective in attracting mid- and senior-level experienced professionals to the Agency.
- Utilizing the pay authority for critical positions, allows NASA to compete more successfully to attract the exceptional talent that the Agency needs.
- Utilizing the “Distinguished Scholar Appointment” and term appointment authorities to effectively target recent college graduates offer streamlined recruitment methods when it is necessary to fill permanent, professional and scientific positions at the entry and intermediate levels.

Retention strategies are critical in a knowledge-based agency like NASA, particularly at a time in which the older technical workforce outnumbers the younger technical workforce so dramatically. As a result of the downsizing during the 1990’s, some Centers have found that they have a generation gap that has created a discontinuity between the younger members of the workforce and those who normally would have preceded them and been their primary mentors. Until this “gap” is corrected, retention bonuses provide more effective incentives to employees with critical, unique expertise to continue to work and transfer their knowledge to others in the workforce. NASA’s critical pay authority may be an effective means of retaining world-class talent as well.

NASA has used the qualifications pay authority judiciously to enhance our ability to leverage the expertise of the workforce by permitting adjustments in an employee’s pay when assigning the employee to a different position, based on his or her unusually high or unique qualifications or a special need of the Agency. We use this tool as an incentive for an employee to accept a position or new responsibilities for which he or she otherwise

would not be interested and available, but for which the employee has exceptional or unique qualifications.

The provision to permit longer-duration term appointments and to authorize conversion of term employees to permanent appointments provides us with greater flexibility in tailoring the workforce as program/project needs change. In addition, we have found that these two features (length of appointment and conversion eligibility) appear to make the concept of term appointments more attractive to potential applicants and thereby provide a more robust labor pool for the Agency. In short, the term appointment authority provides us with overall workforce flexibility, while offering the stability needed to support essential, longer-duration program activities.

In yet other areas, NASA needs the ability to leverage expertise that exists outside of the agency. Enhancing the Intergovernmental Personnel Act authority to permit assignments up to six years, rather than four, is important to knowledge transfer – an important goal of an agency that must sustain its intellectual capital. This flexibility is allowing us to take advantage of the expertise of individuals from academia or nonprofit institutions when our need for continuity is critical to support long-term projects.

Here are a few examples of how these authorities have assisted us over the past year:

- One NASA Center faced difficulty in filling a term engineering position that supported a critical need. The vacancy had been advertised twice – including in industry journals – to attract candidates with the right aerospace expertise. By offering an attractive recruitment package that included the enhanced annual leave benefit and a recruitment bonus, NASA was able to fill the position with an individual who had a PhD in Aerospace Engineering with unique skills directly related to the critical need.
- A NASA Center had a need to fill a mid-level engineering position that was essential to the Agency's Return to Flight efforts. Expertise in aerospace engineering and safety engineering were required – making recruitment more difficult. A candidate from another state was found who had specialized knowledge of NASA programs with a strong background in safety, but he was unwilling to relocate at his own expense to accept the position with NASA. The Center offered the enhanced travel and transportation benefits to the candidate and he accepted the offer.
- The enhanced travel and transportation benefits authority was offered by another NASA Center to four candidates to entice them to accept positions at the Center. Two positions were in Reliability and Quality Assurance; the other two were in Nuclear Propulsion and Advanced Propulsion Technologies. Since the positions were term rather than permanent, it is unlikely these individuals would have accepted the jobs without the travel benefit. This Center also offered the enhanced annual leave benefit to an individual from the private sector with unique experience in new business development. The Center believed the individual would not have accepted the position without that enticement.

- Another Center used the qualifications pay authority in two instances for workforce reshaping needs. This benefit was used when assigning individuals to different positions for which they had unique, technical qualifications and where their skills were better suited to meet program needs.
- A Center that had great difficulty in attracting individuals to its high-cost area made effective use of the authorities. By offering the enhanced travel benefits to a freshout from the East Coast, the Center was able to attract an individual with a Master's degree in Industrial and Systems Engineering with a concentration in Human-Machine Systems. The candidate would not have accepted the position without the relocation package.
- In another instance, the Center was able to hire an individual from the private sector for a position associated with Nanotechnology Systems. This candidate had directly-related experience in nanotechnology development, nanoelectronic device integration, sensing materials, and sensor array development. The individual's current employer was offering a higher salary and a generous leave package than the Center's initial offer. By offering the enhanced annual leave in combination with an advanced in-hire rate, the Center was able to come close to matching the vacation package she already had. The same Center also had success in filling a term Research Psychologist position that had been vacant a long time by using the new term appointment authority, and offering the selected candidate the enhanced annual leave benefit.
- One Center was able to attract an engineer with a doctorate in systems engineering and over 20 years of experience in the aerospace industry to a position supporting the Shuttle program by using the enhanced leave benefit as an incentive. This person had been reluctant to accept a new appointment with limited leave benefits for family-related reasons. By offering this benefit, we were able to compete successfully with the private sector in bringing him to NASA.
- Consistent with NASA's need for a more flexible workforce, one Center alone has been able to hire over 70 term employees over the past 10 months, using the enhanced term appointment authority.

The performance pay flexibilities for the Senior Executive Service provided by the Senior Executive Service Reform Act of the Defense Authorization Act of 2004, have also enabled NASA to recognize the contribution to the Agency's performance of our top performing SES members while providing needed relief from pay compression. Although we are just beginning to operate under the SES pay for performance system, we expect this to be an extremely valuable flexibility that will facilitate more effective management of our senior executive workforce.

And Transforming the Agency

On January 14, 2004, President George W. Bush announced the *Vision for Space Exploration*. The President's directive gave NASA a new and historic focus and clear objectives. The fundamental goal of this directive for the Nation's space exploration program is "...to advance U.S. scientific, security, and economic interests through a robust space exploration program." In issuing this directive, the President committed the Nation to a journey of exploring the solar system and beyond, returning humans to the Moon, and sending robots and ultimately humans to Mars and other destinations. He challenged us to establish new and innovative programs to enhance our understanding of the planets, to ask new questions, and to answer questions as old as humankind.

NASA enthusiastically embraced this directive and we are now engaged in a major transformation to achieve the *Vision*. We are taking the extraordinary capabilities we have throughout the Agency and restructuring them to achieve the goals of the 21st century. This is an enormous challenge, but in less than a year, we have begun to transform our entire organization to foster permanent change and making a positive, mission-driven culture.

Several of the new workforce flexibilities have been, and will continue to be, important to acquiring and retaining people with needed competencies to support this transformation; however, reshaping and realigning the workforce require different strategies. For this reason, we have not used some of the new hiring flexibilities to the extent we initially anticipated, and other workforce reshaping tools are being emphasized to ensure the relevant skills are available to accomplish the mission.

The enhanced relocation bonus authority and the qualifications pay authority will continue to be useful incentives to encourage NASA employees with critically-required skills to accept new assignments where those skills are needed most. To further accomplish our skills rebalancing goals, we are using the buyout and early out authorities under the Homeland Security Act to encourage voluntary attrition in areas in which the need for certain competencies has diminished. This facilitates managed, strategic attrition that allows managers to rebalance where needed and plan for future staffing needs in different competency areas.

In a unique application of the incentive, NASA also is offering buyouts and early outs to employees in locations and positions not affected by the change in competency needs if the position vacated by that employee is filled by an employee whose skills are no longer needed in his or her current locations, but who can contribute in another continuing NASA position. As employees volunteer for a buyout, we are seeking job matches for employees in surplus competencies who are willing to be reassigned to the vacancy created by the potential buyout-taker. Once a match is found, the buyout is approved. This effort involves collaboration between Centers and is part of an Agency-wide workforce rebalancing effort that also includes job fairs.

With the new *Vision for Space Exploration* comes the challenge to be more innovative in human capital management as well. The Agency has always been fortunate to have a highly-skilled, motivated workforce whose talents have been instrumental in achieving

the great accomplishments of the past. The new workforce flexibility tools being addressed today are essential to ensuring we maintain a high caliber workforce as we pursue the opportunities the new *Vision* offers. NASA must implement a number of fundamental changes in how the agency approaches space exploration, and therefore transform to better align the workforce with the new Vision for Space Exploration and its mission requirements. Workforce reshaping is necessary to assure that we have the skills and competencies necessary to achieve the Vision. This is an enormous challenge, but in less than a year, we have begun to transform our entire organization to foster permanent change and making a positive, mission-driven culture. The workforce flexibility tools available to the agency will help us make this happen.