

# Economic Impact of NASA Operations in Virginia: Fiscal Year 2006

## NASA Langley Research Center

NASA Langley, in Hampton, generated \$2.3 billion in economic output and 21,000 jobs in the United States. In Virginia, the economic output of Langley was \$1 billion with 10,500 jobs. Langley's contribution to the economic well-being and quality of life extends beyond income and jobs. Some 9.5 million people had the opportunity to share in the excitement of its aeronautics breakthroughs, its space exploration vision, and its Earth-observing missions through education programs, state fairs, air shows, community events and museums. NASA in Virginia brings a culture of science and engineering alive in schools and universities for Hampton Roads and the Commonwealth.

## NASA Wallops Flight Facility

Wallops created an economic output for the nation of \$424 million and generated 4,000 jobs, which included hosts operations funded by the U.S. Navy and the National Oceanic and Atmospheric Administration (NOAA).

## Langley and Wallops

These NASA facilities in Virginia and their partners combined generated \$2.8 billion and created 25,000 jobs for the U.S. economy. Langley and Wallops combined generated \$1.2 billion in economic output and 12,000 jobs in the state. In Hampton Roads, Langley and Wallops together contributed approximately \$1 billion and 11,000 jobs to the region.

## All NASA

NASA's 10 field centers across the nation and headquarters in Washington, D.C., combined generated \$2.1 billion expenditures annually in Virginia.

NASAfacts

### 2006 Economic Impact of NASA Langley and Wallops



The nation



Virginia



Hampton Roads

2006 Economic  
Impact of all NASA  
Centers in the  
Commonwealth of  
Virginia



# Economic Impact Analysis of NASA Langley Research Center: FY 2006<sup>1</sup>

Langley’s budget in fiscal year 2006 was \$747 million, which reflects an increase from the 2005 fiscal year of \$19 million. In addition, the Center had 198 active reimbursable agreements for work funded by others in fiscal year 2006, accounting for an added \$48 million — 6 percent of the Center’s revenues — an increase of 41 percent over the previous year’s level. The direct economic benefits flow from three primary sources that together create the majority of the direct economic output. Three sources are: direct procurements and expenditures, contractor services, and visitors to Langley.

In fiscal year 2006, Langley and its related organizations generated a total economic output for the nation of approximately \$2.3 billion, and created 21,000 full time equivalent (FTE) jobs for research professionals, scientists, engineers, and administrative services. The economic output of Langley was \$1 billion with 10,500 jobs created for Virginia which includes \$900 million with 10,000 jobs created for Hampton Roads.

## Langley Infrastructure

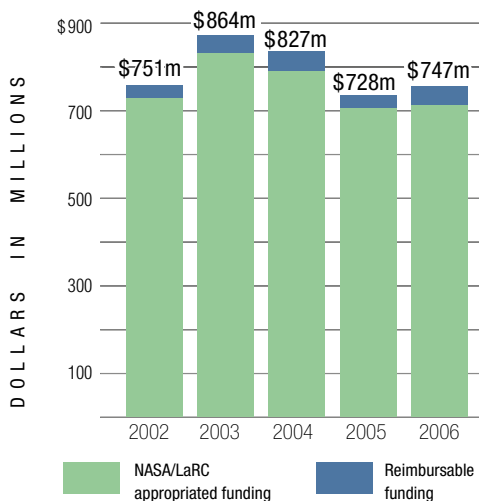
Langley’s research facilities represent an investment (land, buildings and scientific equipment) valued at \$2.6 billion (current replacement value). Further NASA plans to continue investing in the facilities as it prepares for new missions and the construction cost will produce even greater future economic benefits. In 2006 Langley proposed a construction plan for its “New Town” that includes six new buildings with modern offices and labs.

## People of Langley

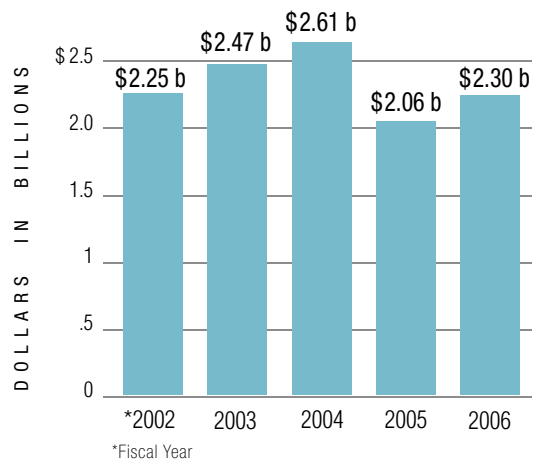
NASA is recognized as a world-class science and engineering agency within the federal government. For its part, Langley is proud to employ highly technical, highly educated personnel, with 57 percent of the Center’s civil service employees engaged in engineering, research, and scientific fields. Currently, 72 percent of the Langley’s workforce has at least a bachelor degree and almost 20 percent hold a doctoral degree.

Langley’s hiring of “the best of the best” continued in 2006. Those with bachelor degrees accounted for 48 percent of new employees while 44 percent held master or doctoral degrees. The Center recruits from an array of public and private-sector entities, including colleges and universities, the National Institute for Aerospace, industry, business, and Langley’s cooperative-education program. Langley’s civil service workforce has an average of 20.4 years of federal service: the second highest within NASA. Personal dedication to NASA’s mission and love of the work being performed appear to be key reasons for the continued service.

Langley Funding Level



Langley Economic Impact on the nation



<sup>1</sup>Economic Impact Analysis prepared for NASA Langley Research Center by The Wessex Group Ltd., Williamsburg, Virginia

# Economic Impact of the NASA Wallops Flight Facility: FY 2006<sup>1</sup>

The fiscal year 2006 budget for the NASA Wallops Flight Facility was approximately \$140 million, and nearly \$25 million in reimbursable funds. The reimbursable funding was about 25 percent more than the previous fiscal year. The total funding level has been consistent over the past few years. The direct economic benefits flow from four primary sources: direct procurements and expenditures, contractor services, salaries, and visitors to Wallops.

Wallops created an economic output for the nation of \$424 million and generated 4,000 jobs, which included hosts operations funded by the U.S. Navy and the National Oceanic and Atmospheric Administration (NOAA).

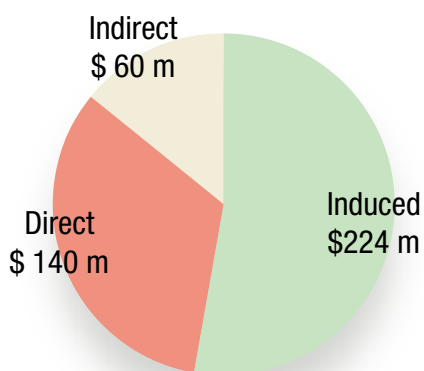
## Wallops Infrastructure

The Wallops site covers nearly 6,000 acres on Virginia's Eastern Shore. In addition to the NASA, Navy, and NOAA investments, the facility also hosts the U.S. Coast Guard, the Mid-Atlantic Regional Spaceport, and BaySys Technologies, Inc. Nearly 200 acres owned by NASA, Accomack County, and the Marine Science Consortium, located directly outside the Wallops main gate, is being developed to form the Wallops Island Research Park.

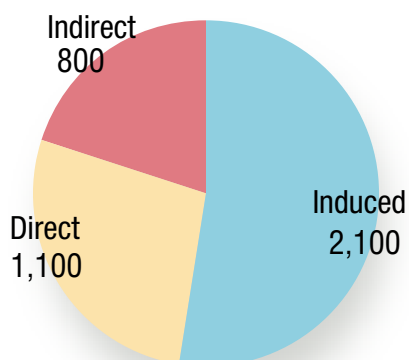
## People of Wallops

The Wallops workforce has a diverse skill mix. The total NASA workforce of about 1,100 people is comprised of nearly 25 percent civil service and 75 percent contractor employees. Scientists and engineers make up 23 percent of the population and 53 percent are in the technician and trades category. The remaining 24 percent are providing administrative functions.

Wallops Economic Impact on the nation



Wallops total job creation



# Langley's Intellectual Contributions

Langley enriches the quality of life and the well-being of the community at large in ways that are not easily monetized.

Langley scientists and engineers have created and made practical a wide variety of scientific breakthroughs. Not only has the direct expenditure on this work benefited the region and nation, it also has spawned numerous commercial activities, many in Virginia. In Fiscal year 2006, Langley personnel developed ideas that led to:

- 109 Invention Disclosures
- 25 Patents Applications
- 16 Patents Issued
- 5 Licences Executed
- 75 Space Act Agreements
- 47 Space Agreement Annexes
- 58 Interagency Agreements
- 18 Interagency Agreements Annexes

The collective intellectual activity at Langley has created revenue sources that further expand the economic impact. For FY 2006, Langley and its associated entities have received \$428,000 in royalty income and, in turn, have paid out royalty payments (67%) to the inventors.

## Education and Outreach

Langley's highly skilled workforce provides an extraordinary opportunity for area educators and community leaders to reach out for help in our classrooms, in civic clubs and in other public venues. Langley personnel also bring science and engineering topics alive in K-12 and university classrooms, enriching the educational experience for a wide array of students. In FY 2006, Langley's employees reached 26,500 students, 3,000 teachers, and 2,700 educational institutions.

Langley's employees routinely volunteer their time and knowledge. In FY 2006, Langley reached out to the general public through its speakers bureau, presenting 24,500 individual talks, lectures, or speeches to area civic organizations, schools, colleges and universities, chambers of commerce, and other non-profit organizations.

Langley's higher-education programs supported 165 students from 70 minority colleges and 41 universities. The National Institute of Aerospace, the University of Maryland Eastern Shore, and Bennett College partnered in conjunction with Langley to host the 10th Annual Pre-Service Teacher Conference. Participants came from 30 states, including the District of Columbia, and consisted of 493 students, 83 faculty members and 38 ambassadors from 76 colleges and universities. The Center also welcomed Oak Ridge Association of Universities as the new manager of NASA's Postdoctoral Program.

In 2006, Langley's Education programs reached approximately 3 billion people or households multiple times through outreach, on-line, and education programs and events.

By any standard, NASA is a source of discovery, inspiration, and an economic engine that enormously benefits the citizens and the quality of life for the region, the Commonwealth, and the nation.

National Aeronautics Space Administration

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