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# Strategic Planning . . .

## Mapping the Way to NASA's Future

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**W**e have plans," said Pellerin, "what we lack is strategic management" which is so vital for an agency bereft of a mandate as clear as the one set by President Kennedy. Pellerin described himself as a "Process Manager" as opposed to a project manager.

Strategic planning efforts began in earnest January 6, 1993, when the Senior Management Group (NASA Administrator, Associate Administrators and Center Directors) decided on an overall strategic planning process and agreed on a plan development method. Besides some basic assumptions, such as 5 percent growth in FY93 and a historical balance of 80 percent for human piloted and 20 percent for robotics exploration program funding, the group agreed to a mix of small, medium and large space service missions. They agreed to link aeronautics and space technology to economic competitiveness, and to limit "Mission to Planet Earth" to a "go as you pay" basis.

From a field perspective, a Strategic Planning Red Team found no single centerpiece that represents what NASA does. Rather, "we are a diverse conglomerate," says Pellerin, in need of strategic planning as a managerial leadership process. Pellerin's assessment of NASA's traditional "Strategic Purposes" follows:

- "We boldly expand frontiers in air and space to:
- Provide inspiration and hope for the future.
  - Contribute to world peace.
  - Enhance economic growth and competitiveness.
  - Understand and help preserve the environment.
  - Support broad national social goals.
  - Maintain a high-tech industrial base."

As for the first purpose, Pellerin jokingly noted a survey which showed that school kids were most interested in "space, dinosaurs and ghosts," placing this industry in the company of the dead and the extinct. The second purpose points to a foreign policy factor in the founding of NASA, but the space race is over and the Russian space program is no longer perceived as a threat. The third purpose reflects some perception in Congress that NASA is a "jobs program," but that

purpose wanes with 124 new members—new members of Congress focus more on constituent needs than support for NASA. The fourth purpose is laudable, he notes, but EOS has had a shaky start and stockholder support is uneven. The fifth purpose has been a low priority for NASA and has been recognized as weak. Finally, the last stated strategic purpose may be a high priority for scientists, CEOs, trade association heads and Congressional committee heads, but they may tend naturally to defend the status quo because it protects their interests. Frequently, however, these leaders have their own agendas and work at cross purposes to each other and to NASA.

So what is NASA to do? Unify around a program like human exploration of the Moon and Mars? Unify around a role like America's technological leadership? Or shall we find some other "glue" for NASA, to mobilize and inspire the entire agency, to convince the political system and the public, and to create a "tangible" image?

The first step, according to Pellerin, is to listen to what others say, think and feel. On February 17, 1993, space policy analysts and professional staff members briefed the Senior Management Group and told NASA that Congress has little motivation to find "inspiration" in these troubled times, that NASA may have less relevance to the national agenda and that NASA needs to improve its "tangible" benefits. While NASA may be supported because of an ongoing "jobs program," the agency's actions are perceived as going against U.S. competitiveness. External analysts say that only NASA perceives education as a central role of the agency.

Internally, Pellerin described the work of the NASA Employee Vision Team, which involved about 7,000 employees (22 percent) in one way or another. Working by consensus, the team found a growing recognition by employees that NASA must be relevant to America's needs. The meaning and value of "exploration" was the most difficult issue; is it a means to an end or an end itself? Should we then stress concrete benefits or the intangibles such as hope, inspiration and pride? Their consensus: "Explore the universe to

enrich human life by stimulating human curiosity, opening new worlds of opportunity, and uniting nations of the world in this quest." The common perception that only humans explore and that robots gather scientific data tends to cause rifts between Centers, but the emergent consensus reads: "Both humans and robots contribute to 'expanding frontiers,' and both should be integrated into programs." Aeronautics, also, was recognized as important to all NASA installations. "The NASA Vision" thus includes exploration, science, and aeronautics, but directed to four national goals for economic growth, preserving the environment, educational excellence and peaceful exploration.

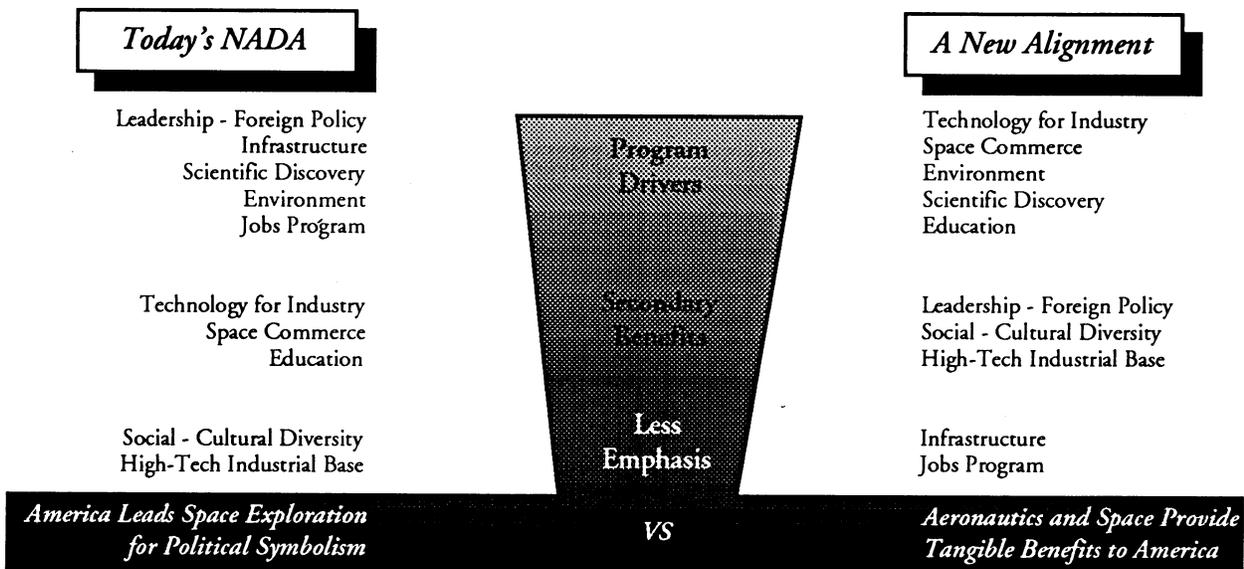
In March 1993 the group studied the Vision Team findings plus the results of six NASA Town Meetings held across the country in November and December. The results were consistent across the country: the majority of citizens were not satisfied with the NASA employee vision, finding it not bold or specific enough, claiming it lacked emphasis on exploration and space settlement. The primary concern expressed in each of the NASA Town Meetings, involving more

than 4,500 people, was: improve communication with the public. Other concerns, in order of importance, were: to make space transportation safer at lower cost, to do more to support teachers and students, and to improve both technology transfer and R&D efforts.

A new framework of "shareholders" or "customers" was formed from those efforts. From this perspective, new alignments of programs were proposed. Instead of program drivers like space exploration for purposes of political symbolism, the new NASA may well concentrate on the immediate economic impact on key industries, technology transfer and spinoffs, and large-scale space-based commerce, Pellerin suggested. Instead of the intangibles of inspiration or of exploration as an end in itself, the new NASA might do well to emphasize the tangible benefits of technological leadership, scientific discoveries, international participation, environmental monitoring and analysis, and educational outreach.

The details for a new "shared vision" are still being worked out, according to Pellerin, but they cluster around four interrelated hosts or "missions":

**We boldly expand frontiers in air and space . . .**



- Mission for Space Development
  - Develop the basis for large-scale, space-based commerce
  - Provide the capability for long-duration human and machine operation in space
  - Develop and transfer technology to U.S. industry
- Mission for Scientific Research
  - Basic Scientific Research
  - Develop and transfer technology to U.S. industry
- Mission for Planet Earth
  - Provide environmental basis for sustainable economic growth
  - Develop and transfer technology to U.S. industry
- Mission for Aeronautics and Space Industry
  - Maintain U.S. leadership in existing aeronautics and space industries
  - Develop new capabilities and industries for future space-based commerce

The accompanying functional capabilities were also critical to the strategic planning process thus addressed as part of the plan:

- Access to Space
  - Develop strategies for assuring access to space
  - Assess the state of technology and identify key areas for investment
- Quality Assurance
  - Develop strategy for efficient development of high quality, safe programs
  - Develop and transfer quality assurance expertise to U.S. industry
- Operations
  - Develop strategies to optimize operations across the Agency
  - Develop and transfer operational expertise to U.S. industry
- Technology
  - Develop strategies for technology development to support NASA missions
  - Identify key areas for investment both internally and externally

- Institutional Development

- Develop strategies for managing and changing the institution

The next steps will require the Senior Management Group to continue the Strategic Planning Process, establish teams to develop appropriate analyses and metrics, and have HQ offices analyze program realignments.

(The final outcome and implementation of the Strategic Planning activities is not clear at this time due to Dr. Pellerin's sabbatical, and the impact of Vice President Gore's National Performance Review activities. Efforts are being made to continue this work and formulate a preliminary plan.)



*Dr. Charles J. Pellerin Jr. is the NASA Associate Deputy Administrator for Strategic Planning. He is responsible for developing NASA's vision and defining the path, including resource allocation. In 1992 Dr. Pellerin became Deputy Associate Administrator for the Office of Safety and Mission Quality at the request of the NASA Administrator.*