

The New NASA

Mike Griffin Takes the Helm and Transforms the Agency

Since the last issue of *The New Atlantis* went to press, a new NASA administrator was nominated by the White House and confirmed by the Senate. His name is Michael Griffin, and since his April 13 confirmation, he has moved swiftly to make changes at the space agency.

Griffin succeeds Sean O'Keefe, a NASA administrator who leaves behind a mixed legacy: The wildly successful Spirit and Opportunity rover missions on Mars happened on his watch, but so did the deadly *Columbia* accident. O'Keefe helped midwife President Bush's new Vision for Space Exploration to the "Moon, Mars, and beyond," but only after long insisting that "NASA should not be destination-

driven." And critics point to a string of questionable decisions that suggested, as Robert Zubrin put it in our last issue, that O'Keefe's leadership was "lacking in technical competence or even respect for scientific or technical considerations."

The same cannot be said of Griffin, who is as technically competent as they come. He has a bachelor's degree in physics; five different master's degrees (in aerospace science, electrical engineering, applied physics, business administration, and civil engineering) from five different universities; and a Ph.D. in aerospace engineering. He has been a corporate president and a college professor. He is a pilot and a flight instructor. He has written dozens of

technical papers. And he has held several government posts, including a stint as NASA's chief engineer and another as the agency's associate administrator for exploration. At the time President Bush selected him to head NASA, Griffin was just weeks away from being inducted as the new president of the American Institute of Aeronautics and Astronautics. He has neither the slickness of the Washington dealmaker nor the empty eyes of the bureaucrat—he is another breed altogether, an engineer in a hurry: rumped, smart, and tough.

In Griffin's testimony at his Senate confirmation hearing, he made clear his strong support for the new Vision for Space Exploration and candidly criticized the old NASA mentality. "It is time to recognize that we have squandered a once-insurmountable lead in the arts and sciences of spaceflight," he said. "The best we can say for ourselves today is that our *grounded* space shuttle is much more sophisticated than the *operational* vehicles belonging to the two nations which have sent people into space since we have last done so."

Getting our shuttles un-grounded is Griffin's immediate task. After many months of delay, the space agency at last looks poised to launch the shuttle *Discovery* in July. If all goes as planned, the shuttle fleet will get back to work finishing the International Space Station—a job that should be finished in 2010, at which point the fleet will be retired. The shuttle's return to flight will be the first publicly visible benchmark of Griffin's administration at

NASA, even though nearly all the work of improving and readying the shuttles was done under O'Keefe.

In the intermediate term, Griffin has already moved quickly to distance himself from his predecessor. He has reversed what many observers consider the biggest post-*Columbia* blunder of O'Keefe's tenure, the decision to end the planning for a final manned mission to repair the Hubble Space Telescope. O'Keefe had cancelled the planned Hubble mission because he considered it too risky in the post-*Columbia* era; Griffin has now instructed NASA engineers to resume preparations for a Hubble mission, provided that the shuttle's return-to-flight goes safely and smoothly. He has reversed other O'Keefe-era decisions as well, including putting a hold on plans to outsource much of NASA's basic research; Griffin clearly hopes to keep the agency's scientific expertise in-house.

Most importantly, Griffin has begun to reshape the NASA bureaucracy. He has moved with lightning swiftness to replace dozens of senior managers at the agency, in what has been described in the press as "housecleaning," "a broad agency shake-up," and even a "purge." According to the *Washington Post*, Griffin has privately "expressed dismay that NASA over the past several years had put a lot of people in top management positions because of what one source described as 'political connections or bureaucratic gamesmanship—not merit.' Several sources spoke of a corps of younger scientists and engineers, including Griffin, who

had been groomed in the 1970s and 1980s as NASA's next generation of leaders only to be shoved aside during the past 15 years. They said Griffin hopes to bring them back."

The new administrator's next big task is to put forth his specific plans for making President Bush's vision for NASA real. Griffin is expected to unveil his plans near summer's end, but based on his past record and recent comments, it is possible already to see a general outline. First, it is likely that the plans for the International Space Station will have to be scaled back. Completing the station as currently planned would require 28 space shuttle flights, and Griffin has said it is "beyond reason to be able to expect" NASA to carry out that many flights by the shuttle's scheduled 2010 retirement date.

Second, Griffin has made it clear that he wants to greatly accelerate the development of the Crew Exploration Vehicle (CEV), America's new spacecraft, so that it is completed by (or close to) 2010. This way, there will be no years-long gap between the retirement of the space shuttle and the completion of the CEV during which the United States has no spaceflight ability.

Third, Griffin is likely to push for the rapid development of a heavy-lift launch vehicle (HLV). The United States has not had an HLV since the improvident cancellation of the Saturn V rocket that put the Apollo astronauts on the Moon; having a new one will give NASA options for more ambitious missions. A new HLV would like-

ly have industrial and military applications, as well. Some observers and analysts in NASA, the Pentagon, and the space policy community oppose the creation of a new heavy-lift vehicle, but Griffin has a long record of supporting the development of an HLV—although it isn't clear at this writing whether he would aim for a new rocket designed from scratch or a system based on existing shuttle components.

And fourth, Griffin wants America to reach the Moon sooner rather than later. The Vision for Space Exploration calls for Americans to next set foot on the Moon some time between 2015 and 2020. Griffin seems inclined to push for Moon missions near the beginning of that window, including missions that would "build a lunar outpost similar to the kinds of multinational outposts we have in Antarctica." It is not yet clear whether Griffin will propose a timeline for sending manned missions to Mars, although his plan is expected to address ways in which lunar missions will serve to prepare NASA for exploring the Red Planet.

It is worth remembering that NASA's history is rife with extravagant "architectures" left unbuilt and long-term "roadmaps" left unused. Although Griffin seems uncannily fit for the task of leading NASA at this critical moment in its history, his ideas for the agency's future will face the twin challenges that have stifled other promising plans: too little money and the rhythms of the political calendar. In the present economic environment—with large budget deficits that frustrate

fiscal conservatives and give the minority party political ammunition—NASA is unlikely to get any big budget boosts. In fact, the agency's allies in Congress are already having to fend off attempts to *cut* NASA's budget.

And always present in Griffin's calculations must be this simple truth: Someone new will be in the White House in January 2009. There is no guarantee that President Bush's vision of Moon-Mars exploration will be

acceptable to the next administration, even if the next president is a Republican. To prevent the next president from pulling the plug and returning the nation to the dreary and dangerous days of the shuttle and space station, NASA must move boldly and quickly now. Enough momentum must be built on this president's watch so that the agency cannot retrograde when this president leaves. No wonder Griffin is in such a hurry.