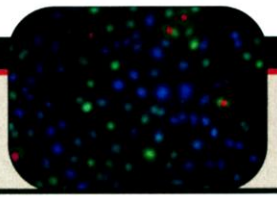
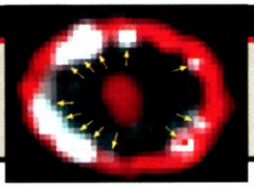




As a former university president, however (he headed the State University of New York, Stony Brook, for 14 years), Marburger also upholds the principle of autonomy. "It's important for universities to straighten this out campus by campus," he says.

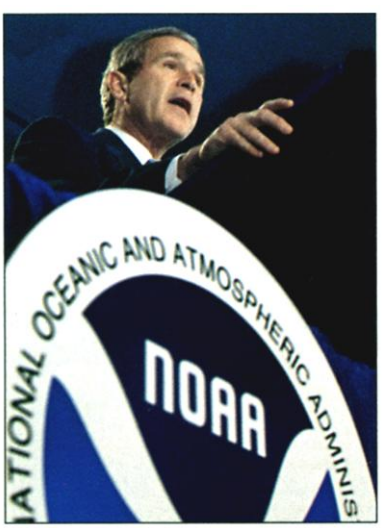
–DAVID MALAKOFF

CLIMATE CHANGE

More Science and a Carrot, Not a Stick

President George W. Bush last week delivered on his promise to face up to the threat of global climate change. But the new policy, which includes a slight bump in climate-related research, seems unlikely to alter entrenched views on the intensely politicized subject. Speaking at the Silver Spring, Maryland, headquarters of the National Oceanic and Atmospheric Administration (NOAA), Bush outlined a go-slow, entirely voluntary alternative to the reduction of greenhouse gas emissions required by the Kyoto Protocol. Whether the approach will ever net any significant emission reductions is unclear, but Representative Sherwood Boehlert (R–NY), chair of the House Science Committee, pronounced himself satisfied with its tone if not its substance. "The statement shifts the debate once and for all from whether to limit carbon dioxide emissions to how much to limit them," says Boehlert, who has criticized past environmental positions of his party's standard-bearer.

Bush's speech also highlighted two science initiatives, totaling $80 million, that are part of his 2003 budget request submitted this month to Congress. The Climate Change Technology Initiative would pump $40 million through the Department of Energy into as-yet-unidentified research and development, presumably including hot areas such as sequestration of carbon dioxide, with the goal of reducing greenhouse gas emissions. The $40 million Climate Change Research Initiative (CCRI) would complement research under the continuing $1.7 billion U.S. Global Change Research Program (USGCRP), which Bush's father began more than a decade ago. Presidential science adviser John Marburger last week told Boehlert's panel that the money would focus on finding science-driven answers to issues "of more immediate value to policy-makers" than what the global change program is addressing.



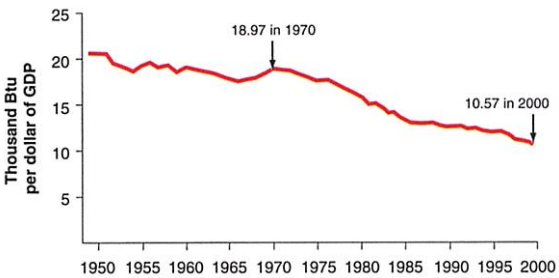
Please help. Restraint of greenhouse gas emissions will be entirely voluntary.

The president's new strategy aims for an 18% reduction by 2012 in "greenhouse gas intensity," the amount of emissions per unit of gross domestic product. The more efficiently Americans use fossil fuels and the more they use renewable energy, the more greenhouse gas intensity will decline. Bush hopes to entice businesses by providing $4.6 billion dollars over 5 years in tax credits for the use of renewable energy sources. He would also encourage more efficient use of fossil fuels by enhancing the existing registry of emission reductions and giving credits to businesses that show absolute reductions in emissions. These credits would become valuable if U.S. emissions were ever directly regulated; in the meantime, they would remain meritorious but useless.

The prospects for attaining Bush's goal "depend a lot on what investors think," says economist Raymond Kopp of the think tank Resources for the Future in Washington, D.C. Businesses are more likely to respond voluntarily, he says, if they believe that future regulation will punish slackers.

But Kopp and others note that the goal, even if attained, is not as ambitious as it might sound. Greenhouse gas intensity has been declining for many decades, including a 17% drop in the most recent decade. A government forecast of a 14% decline in the next decade would leave only 4% to come from the voluntary incentives. The total is less than 20% of the reduction in U.S. emissions spelled out under the Kyoto Protocol, which the U.S. has rejected and which in itself would not have detectably reduced global warming.

The research initiatives are designed to help the government decide whether any regulation may be required, Bush explained. The $40 million CCRI would explore carbon cycling—which controls how much carbon dioxide remains in the atmosphere—and aerosols, including soot, that can either mask or enhance greenhouse warming. It would also bolster global climate observations in developing countries. NOAA would receive $18 million under the initiative, including $5 million to establish a climate modeling center at its Geophysical Fluid Dynamics Laboratory in Princeton, New Jersey. That might strengthen U.S. climate modeling now lacking in focus (*Science*, 5 February 1999, p. 766). The National Science Foundation would get $15 million, including $5 million to explore how society can cope with a changing climate.



Right direction. The president's goal is to accelerate the decline in energy consumed per dollar of economic output.

Scientists welcome the research initiative, despite its modest size next to the $1.7 billion USGCRP, which is scheduled for a $44 million boost. "It's not very much money compared to USGCRP," agrees climatologist James Hansen of NASA's Goddard Institute for Space Studies in New York City. "But it is a signal to the agencies that this is the direction they should be going with the dollars they already have." Scientists, he says, were already getting the message as they scrambled to help refine the priorities Bush set last June.

–RICHARD A. KERR

ANIMAL WELFARE

Senate Says No to New Rodent Rules

Biomedical research groups have won a major victory in a long-running battle over U.S. government regulation of laboratory mice and rats. But the war isn't over.

The U.S. Senate last week voted to bar the U.S. Department of Agriculture (USDA)

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