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The Politics of Climate Control

What will happen when geoengineering comes to Washington?

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This piece arises from Future Tense, a collaboration among Arizona State University, the New America Foundation, and Slate. A Future Tense conference on geoengineering will be held at the New America Foundation on Monday, Sept. 27. (For more information, please visit the [NAF Web site](#).) Read more of [Slate](#)'s special issue on geoengineering.

The political acrimony surrounding the Democrats' failure to pass limits on U.S. greenhouse gases this year was fairly predictable by Washington standards. Both presidential candidates in the last election called for the government to create mandatory controls on carbon pollution, and Nancy Pelosi [drove a bill](#) through the House last year to do just that. But an equivalent measure died in the Senate without even a floor vote. In the end, no Republican senator supported Democrats' efforts to limit American emissions, relying primarily on arguments that the scheme was a [big-government "energy tax"](#) akin to Obamacare in its scope. Enviro and the Obama administration traded the [inevitable recriminations](#); the gridlock mirrored the [failed climate negotiations](#) months before in Copenhagen.

With cap-and-trade probably dead for at least another two years, the politicians are left to consider other responses to climate change. One is [massive investment](#) in alternative energy and mitigation strategies. Another, rapidly gaining notice in Washington circles, is geoengineering research. The goal of the latter would be to devise emergency plans in the event of a worst-case scenario—if carbon emissions warmed the planet by 10 degrees this century instead of 2 degrees, for example. Whether they seek to block sunlight or remove CO₂ from the atmosphere, geoengineering schemes will take decades of preparation, and scientists say we need to start studying them now. To embark on such a research program will take money, of course, and the expenditure of political capital. It's a controversial idea with complicated geopolitical ramifications. So the question of how geoengineering will play in Washington is an important one.

Taxpayer-funded studies of planet-hacking aren't yet a factor in the political debate on global warming, but the idea is getting plenty of attention. It's now difficult to find a respectable climate scientist who doesn't think the government should pay for an organized program to understand geoengineering. In the spring, the National Research Council [laid out](#) a variety of research areas—cloud brightening, stratosphere tinkering, roof-whitening—that should be tackled in "an integrated research effort." The American Geophysical Union and the United Kingdom's Royal Society both followed suit, with the latter calling for a [£10-million-per-year government research effort](#). The Government Accountability Office, the House Science Committee, and the [Bipartisan Policy](#)

[Center](#) will each, in the coming months, be releasing studies that will provide more detail on what such programs might cover and which federal agencies would do what. Experts say [a transparent, coordinated federal program](#) of \$10 million to \$30 million a year could be an important start.

As a policy option, planet-hacking science has only recently moved from being utterly ignored to being held at arm's length. A handful of scientists thinking about it are supported by [the National Science Foundation](#) and the Department of Energy. But the notion of creating a more substantial research program hasn't come up in any elections, and official Washington has held only three hearings on it, attracting little attention or controversy. Liberals have shied away; conservatives, to the extent they've acknowledge geoengineering at all, have used the issue to support various right-wing [talking points](#) about the socialist motives of environmentalists or the supposedly minor role of atmospheric CO₂.

How will foes on either side of the climate debate handle the issue as it veers from science-fiction into science policy? If anything, Republicans are less likely to support geoengineering research today than they were just a few years ago. During the 2000 election, George W. Bush [called for regulation of greenhouse gases](#)—and then John McCain did the same in 2008. (McCain's plan was almost as aggressive as what passed in the House last year.) In a 2001 [speech](#) from the White House Rose Garden, President Bush [acknowledged](#) that experts believed "human activity" was contributing to warming. His administration consistently downplayed its possible effects, but spending on climate research hovered near \$1.9 billion per year while he was in office.

But whatever willingness Republicans once had to acknowledge the scientific facts on climate change seems to be melting away. In the last six months, [Sarah Palin](#), [McCain](#), and other leading GOP-ers have questioned the basic validity of the science behind warming, and [scores of Republican candidates](#) are now doing the same on the campaign trail. Since the very premise of planet-hacking research is the existence (or at least the significant likelihood) of a climate crisis, these Republicans would be hard-pressed to offer much support for the study of geoengineering.

A relatively new meme in the climate wars will make the case for federal planet-hacking research even tougher. In April, Sarah Palin called climate science "[snake-oil science stuff that is based on this global warming, Gore-gate stuff.](#)" The [Climategate controversy](#) led Bret Stephens to write in the Wall Street Journal that climate researchers are a "vested interest" whose biases "[are an enemy of sound science.](#)" That line of attack will make it hard for scientists to argue for money to study a new and potentially dangerous approach to controlling climate change. So will House Republicans' avowed commitment to cutting government spending. (Technocrats altering the planetary thermostat is about as big as government can get.)

Meanwhile, liberals are in an awkward spot when it comes to proposing a federal geoengineering research program. From John Holdren, the president's science adviser, to Steve Koonin, a top official at the Department of Energy, the administration has in place powerful advocates who believe that such a program is necessary. But after an interview in which Holdren said geoengineering had been discussed in the White House, the AP published a story that said Obama's "Global Warming Plan Involves Cooling Air" and Holdren [reacted with fury](#). Subsequently, other government officials have kept quiet on the topic.

Having failed to curb global and U.S. emission controls, climate advocates now worry that talking about geoengineering as a palliative would embolden those who want to frame geoengineering as a [viable alternative to cutting back on fossil fuels](#). There's also the fear that without controls on U.S. emissions in place, a federal geoengineering program would signal to the world that we're looking to engineer our way out of the climate conundrum instead of addressing the root problem. Mainstream green groups have either remained neutral on the issue or, like the Environmental

Defense Fund, quietly supported research. But a new effort launched by an international group of left-wing groups called [Hands Off Mother Earth](#) has called for a global moratorium on geoengineering tests; it will no doubt gain U.S. allies if the debate comes to D.C.

So the current state of ambivalence on geoengineering research in Washington is likely to persist for a while. But if the federal government avoids the subject, there's nothing stopping private firms or individuals from getting involved on their own terms. In fact, Bill Gates has already given [a few million dollars](#) to some relevant academics, while Richard Branson has [expressed his own enthusiasm](#) for the field and Nathan Myrvoild has [convened geoengineering brainstorming sessions](#). Most scientists would prefer to receive their support from the government, on the grounds that if there were ever a new technology that demands public oversight, this would be it. The intersection of private companies and geoengineering has already led to controversy over [corporate conflict of interest](#) (regarding the sponsor of a geoengineering conference in March) and questions about whether it's appropriate for Myrvoild or others to hold patents on climate-altering technologies.

Opponents and supporters of greenhouse-gas limits may each have their reasons to avoid supporting the kind of geoengineering studies that researchers say is required now. But if anything, that's just a new variation on an old tune. Scientists have been calling for limits on greenhouse-gas pollution for more than a decade, and neither party has managed to make it happen. If Washington has been unwilling to confront our addiction to fossil fuels, it's not surprising that lawmakers aren't yet ready to explore the feasibility of planetary methadone.

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Science reporter Eli Kintisch's book, [Hack the Planet: Science's Best Hope—or Worst Nightmare—for Averting Climate Catastrophe](#), comes out in April.

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