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Climate Maverick to Quit NASA



Michael Nagle for The New York Times

James E. Hansen of NASA, retiring this week, reflected in a window at his farm in Pennsylvania.

By [JUSTIN GILLIS](#)

[James E. Hansen](#), the climate scientist who issued the clearest warning of the 20th century about the dangers of [global warming](#), will retire from [NASA](#) this week, giving himself more freedom to pursue political and legal efforts to limit greenhouse gases.

His departure, after a 46-year career at the space agency's [Goddard Institute for Space Studies](#) in Manhattan, will deprive federally sponsored climate research of its best-known public figure.

At the same time, retirement will allow Dr. Hansen to press his cause in court. He plans to take a more active role in lawsuits challenging the federal and state governments over their failure to limit emissions, for instance, as well as in fighting the development in Canada of a particularly dirty form of oil extracted from tar sands.

“As a government employee, you can’t testify against the government,” he said in an interview.

Dr. Hansen had already become an activist in recent years, taking vacation time from NASA to appear at climate protests and allowing himself to be arrested or cited a half-dozen times.

But those activities, going well beyond the usual role of government scientists, had raised eyebrows at NASA headquarters in Washington. “It was becoming clear that there were people in NASA who would be much happier if the ‘sideshow’ would exit,” Dr. Hansen said in an e-mail.

At 72, he said, he feels a moral obligation to step up his activism in his remaining years.

“If we burn even a substantial fraction of the fossil fuels, we guarantee there’s going to be unstoppable changes” in the climate of the earth, he said. “We’re going to leave a situation for young people and future generations that they may have no way to deal with.”

His departure, on Wednesday, will end a career of nearly half a century working not just for a single agency but also in a single building, on the edge of the Columbia University campus.

From that perch, seven floors above the [diner](#) made famous by “Seinfeld,” Dr. Hansen battled the White House, testified dozens of times in Congress, commanded some of the world’s most powerful computers and pleaded with ordinary citizens to grasp the basics of a complex science.

His warnings and his scientific papers have drawn frequent attack from climate-change skeptics, to whom he gives no quarter. But Dr. Hansen is a maverick, just as likely to vex his allies in the environmental movement. He supports nuclear power and has taken stands that sometimes undercut their political strategy in Washington.

In the interview and in subsequent e-mails, Dr. Hansen made it clear that his new independence would allow him to take steps he could not have taken as a government employee. He plans to lobby European leaders — who are among the most concerned about climate change — to impose a tax on oil derived from tar sands. Its extraction results in greater greenhouse emissions than conventional oil.

Dr. Hansen’s activism of recent years dismayed some of his scientific colleagues, who felt that it backfired by allowing climate skeptics to question his objectivity. But others expressed admiration for his willingness to risk his career for his convictions.

Initially, Dr. Hansen plans to work out of a converted barn on his farm in Pennsylvania. He has not ruled out setting up a small institute or taking an academic appointment.

He said he would continue publishing scientific papers, but he will no longer command the computer time and other NASA resources that allowed him to track the earth's rising temperatures and forecast the long-run implications.

Dr. Hansen, raised in small-town Iowa, began his career studying Venus, not the earth. But as concern arose in the 1970s about the effects of human emissions of greenhouse gases, he switched gears, publishing pioneering scientific papers.

His initial estimate of the earth's sensitivity to greenhouse gases was somewhat on the high side, later work showed. But he was among the first scientists to identify the many ways the planet is likely to respond to rising temperatures and to show how those effects would reinforce one another to produce immense changes in the climate and environment, including a sea level rise that could ultimately flood many of the world's major cities.

"He's done the most important science on the most important question that there ever was," said Bill McKibben, a climate activist who has worked closely with Dr. Hansen.

Around the time Dr. Hansen switched his research focus, in the 1970s, a sharp rise in global temperatures began. He labored in obscurity over the next decade, but on a blistering June day in 1988 he was called before a Congressional committee and [testified](#) that human-induced global warming had begun.

Speaking to reporters afterward in his flat Midwestern accent, he [uttered a sentence](#) that would appear in news reports across the land: "It is time to stop waffling so much and say that the evidence is pretty strong that the greenhouse effect is here."

Given the natural variability of climate, it was a bold claim to make after only a decade of rising temperatures, and to this day some of his colleagues do not think he had the evidence.

Yet subsequent events bore him out. Since the day he spoke, not a single month's temperatures have fallen below the 20th-century average for that month. Half the world's population is now too young to have lived through the last colder-than-average month, February 1985.

In worldwide temperature records going back to 1880, the 19 hottest years have all occurred since his testimony.

Again and again, Dr. Hansen made predictions that were ahead of the rest of the scientific community and, arguably, a bit ahead of the evidence.

"Jim has a real track record of being right before you can actually prove he's right with statistics," said [Raymond T. Pierrehumbert](#), a planetary scientist at the University of Chicago.

Dr. Hansen's record has by no means been spotless. Even some of his allies consider him prone to rhetorical excess and to occasional scientific error.

He has repeatedly called for trying the most vociferous climate-change deniers for “crimes against humanity.” And in recent years, he stated that excessive carbon dioxide emissions might eventually lead to a runaway greenhouse effect that would boil the oceans and render earth uninhabitable, much like Venus.

His colleagues pointed out that this had not happened even during exceedingly warm episodes in the earth’s ancient past. “I have huge respect for Jim, but in this particular case, he overstated the risk,” said Daniel P. Schrag, a geochemist and the head of Harvard’s [Center for the Environment](#), who is nonetheless deeply worried about climate change.

Climate skeptics have routinely accused Dr. Hansen of alarmism. “He consistently exaggerates all the dangers,” Freeman Dyson, the famed physicist and climate contrarian, [told](#) The New York Times Magazine in 2009.

Perhaps the biggest fight of Dr. Hansen’s career broke out in late 2005, when a young political appointee in the administration of George W. Bush began exercising control over Dr. Hansen’s statements and his access to journalists. Dr. Hansen [took the fight public](#) and the administration [backed down](#).

For all his battles with conservatives, however, he has also been hard on environmentalists. He was a [harsh critic](#) of a failed [climate bill](#) they supported in 2009, on the grounds that it would have sent billions into the federal government’s coffers without limiting emissions effectively.

Dr. Hansen agrees that a price is needed on carbon dioxide emissions, but he wants the money [returned to the public](#) in the form of rebates on tax bills. “It needs to be done on the basis of conservative principles — not one dime to make the government bigger,” said Dr. Hansen, who is registered as a political independent.

In the absence of such a broad policy, Dr. Hansen has been lending his support to fights against individual fossil fuel projects. Students lured him to a coal protest in 2009, and he was arrested for the first time. That fall he was cited again after sleeping overnight in a tent on the Boston Common with students trying to pressure Massachusetts into passing [climate legislation](#).

“It was just humbling to have that solidarity and support from this leader, this lion among men,” said [Craig S. Altemose](#), an organizer of the Boston [protest](#).

Dr. Hansen says he senses the beginnings of a mass movement on climate change, led by young people. Once he finishes his final papers as a NASA employee, he intends to give it his full support.

“At my age,” he said, “I am not worried about having an arrest record.”