

Secret History of Science's Postwar Elite

Ann Finkbeiner's mind blowing book *The Jasons - The Secret History of Science's Postwar Elite* (2006) which takes a provocative inside look at the elite scientists who have worked behind the scenes to influence American science and policy for half a century. At a dinner honoring Freeman Dyson, Finkbeiner heard the physicist allude to government advisors called "the Jasons," a group little known except to Pentagon insiders. The first author to devote a book to the Jasons, she explains that they are a self-selecting cadre of scientists independent of the government who evaluate military technologies at the frontier of physical feasibility. Their group is a child of the Manhattan Project by way of the cold war, and they count among their ranks scientific stars like Freeman Dyson and Murray Gell-Mann, and among their mentors Edward Teller and Hans Bethe. They've inherited a mission from the Manhattan Project - to counsel the government on the military uses of pure science and have gathered every summer since 1960 to solve highly classified problems for the Department of Defense and the intelligence community. Aside from a brief media firestorm during the Vietnam War, they've worked in utter secrecy with unparalleled freedom.

Fiercely patriotic and stubbornly independent, the Jasons have been directly responsible for breakthroughs ranging from the electronic battlefield to the "Star Wars" missile defense technologies to the national system for predicting global climate. But their mission to keep a vigil over applied science has led them into both moral dilemmas and political stews. Among the projects credited to the JASONS, with all too little detail, are missile defense, directed energy weapons, extremely low frequency (ELF) communications to reach submerged submarines, nuclear event detection, sensors and night vision for Vietnam.

Finkbeiner discusses throughout the book the conflict between the scientific imperative to discuss hypotheses and findings opening, and the demands for secrecy imposed on these brilliant minds. These truly astonishing scientists have dedicated much work to improving the security of the country, and have suffered enormous moral guilt over the misuse of their most profound discoveries. We learn about how their work has changed their lives AND ours.

The Jasons is a spellbinding and meticulously researched history that reveals the critical scientific advances and the unintended consequences of the Jasons' shadowy work as well as the fascinating personalities of the Jasons themselves. Part social history, part biography, and definitely a large part philosophy of science, this book deserves a wide audience. 115 pages. A must read for everyone.

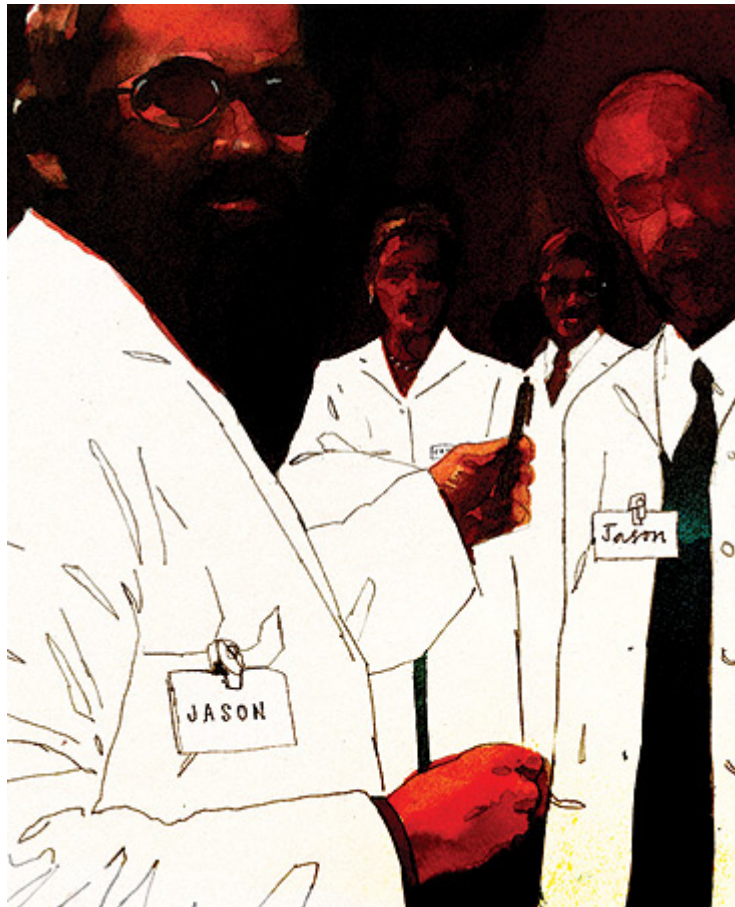
How a faceless, underground collective of scientists has helped determine the fate of the American empire.

The Jasons: The Secret History of Science's Postwar Elite
By Ann Finkbeiner

Science and secrecy don't exactly go hand in glove, but when they do, the hand is prosthetic and the glove is leather and both are at the end of Dr. Strangelove's upraised arm. This is true in the public imagination, but it also exists in the scientific imagination. Just ask the Nobel Prize-winning physicist who attended a Cold War-era defense briefing only to hear about a computer simulation of a massive missile exchange leading to the deaths of 20 million people.

Ann Finkbeiner recounts this story early in *The Jasons: The Secret History of Science's Postwar Elite*, and not surprisingly, it haunts the rest of the book. Her subject is a collective of top-notch scientists who have been meeting every summer since 1960 to serve as consultants to the US Department of Defense. They don't like secrecy. They would probably all agree with Finkbeiner's simple declaration: "Secrecy is antiscience." But they also believe that transparency sometimes isn't an option, and they know too well that it can end up doing science more harm than good.

Some information about the Jasons has surfaced in the press over the decades, especially in the aftermath of the publication of the Pentagon Papers, and in the 1980s some of the Jasons participated in an oral history project now archived at the American Institute of Physics. But, until now, no one has written a major book on them. Indeed, much of the work the Jasons did—and do—for the government remains classified, and when Jasons are uncertain about the status of information, they err on the side of secrecy. Finkbeiner herself has conducted dozens of interviews with Jasons past and present. But by her own admission, she has produced "less a respectable history than a series of stories." That episodic, sometimes anecdotal quality lends the book a tone more journalistic than literary; Finkbeiner rarely recreates a scene, even when it would have been ethically unimpeachable to do so, preferring to keep the accounts within quotes. She has, nevertheless, produced an important investigation into the relationship between science and government; between "studying ultimate reality" and "shooting down missiles;" between the rules of logic and the vagaries of human nature. At heart, *The Jasons* is a meditation on morality.



The story begins, as descends down slippery slopes often do, at the summit of best intentions. During World War II, the atomic bomb might have been “the prototype of a harmful technology forcing a moral decision,” as Finkbeiner writes, but for the physicists working on the Manhattan Project, the decision on whether to build a bomb before the other guys did was what we today might call a no-brainer. Not long after the end of the war, American physicists again found themselves advising the government in secret, this time about how to build more bombs, bigger bombs, better bombs, as well as how to detect the detonation of enemy bombs. Then on October 4, 1957, the Soviets sent a satellite into space. “It’s hard,” John Archibald Wheeler tells Finkbeiner, “to reconstruct now the sense of doom when we were on the ground and Sputnik was up in the sky.” Sputnik carried no cargo but it did send a message: A rocket that could launch a 183-pound beeping piece of metal into orbit above the US could easily throw a warhead the same distance.

Like a sheriff putting on the badge one last time, the old World War II and Cold War gang—Wheeler, Edward Teller, Eugene Wigner, Hans Bethe and others—reassembled, deputizing the best and the brightest of a young generation of physicists, including Freeman Dyson, Steven Weinberg and Murray Gell-Mann. They called themselves the Jasons, as in Jason and the Argonauts, a reference that evoked young heroes on a mission. Walking into one of the early Jasons meetings, Bethe remarked that it looked like “the Who’s Who” of American physics.

But they weren't in Kansas anymore. The black hats and white hats were becoming harder to tell apart. After the US began sending thousands of military "advisers" to Southeast Asia in the early 1960s, Finkbeiner writes, the Jasons decided, unasked, to "see what they could do about Vietnam." "The old-time warriors," Marvin Goldberger says now, "decided with the characteristic modesty of physicists that they ought to get into this and clean it up."

As an alternative to the US bombing of North Vietnam—which they concluded in 1966 "...has had no measurable effect on Hanoi's ability to mount and support military operations"—the Jasons advocated an electronic barrier, a series of eavesdropping devices that US forces could deploy along the Ho Chi Minh Trail to detect troop movements. As far as the physicists knew, says one Jason, they were recommending this strategy for "further study, you know, the way physicists do," but Secretary of Defense Robert McNamara "jammed it down throats of military." The Air Force saw sensors not as an alternative to carpet-bombing but, Goldberger says, as an "add-on." And so the bombing continued, on and on, into the 1970s, and into Cambodia and Laos.

In June, 1971, *The New York Times* and *The Washington Post* began publishing the Pentagon Papers, the government's secret history of the Vietnam War, including the involvement of an elite band of scientists. Suddenly the Jasons found themselves the public face of a deeply unpopular war, villains in black hats, a brotherhood of Strangeloves. Riots broke out on campuses where Jasons taught, mass protests greeted them at conferences around the world, death threats followed them home. As Finkbeiner says, "nobody liked scientists anymore."

Part of what went wrong was that the US military had grossly misjudged the enemy. But the Jasons had also grossly misjudged the US military. "Our objective," Goldberger tells Finkbeiner, had been "to lower the temperature of the war so it could be solved by political means." The military's objective was to thwart a Communist takeover. The two goals weren't necessarily mutually exclusive, but they weren't the same, either. In what Goldberger calls "almost a textbook demonstration of the arrogance of physicists," the Jasons had forgotten that decisions about what goals to pursue, and how to pursue them, belonged not to the physicists but to their sponsor. "The government," one Jason recalls, "was not interested in the advice that was given it, and didn't intend to take it, and did not take it." By the time the Jasons realized their miscalculation, they had uncorked a new genie, what the military brass and DC politicians were soon calling "the electronic battlefield," or what we now call smart weapons.

The war that isn't going according to plan because of faulty intelligence, an administration that ignores science it finds politically inconvenient, government manipulation of information to justify foreordained conclusions—Finkbeiner doesn't push the parallels to current events, though she makes clear in the final pages that such parallels exist. Her larger point is that these parallels always exist to a lesser or greater extent, and so scientists must decide whether to share their expertise—whether to try to shape public policy.

In the end, Finkbeiner comes down on the side of more information, which is to say on the side of the Jasons, for "the more convinced the government is of the rightness of its

political decisions, the more it needs to hear the advice of its scientists.” This summer, in La Jolla, maybe body armor will be on the agenda, or how to protect against a dirty bomb, or how to better intercept voices bouncing off the kinds of satellites that an earlier generation of Jasons helped launch. This year’s Jasons will surely have something useful to contribute. The question is: Will anyone be listening to them?

The Jasons Exposes Secret Science

Every summer, the Southern California seaside community of La Jolla plays host to some of the nation's most prestigious scientists. These elite geeks launch probes into some of the world's most vexing scientific questions between beach excursions and barbecues.

But there's never a blizzard of press releases or a big splash in *Nature* magazine. These moonlighting scientists are working for their country, not their universities, and few people see the classified reports they release on topics from nuclear weapons to global warming.

This is the world of the "Jasons," a semi-secret society of scientists who inherited the mantle of the famous [Manhattan Project](#). Designed to be both a resource and a reality check for the powers that be, the Jasons have produced some paradigm-changing science, too.

Their fascinating story is unveiled, apparently for the first time, in a new book by Ann Finkbeiner called *The Jasons: The Secret History of Science's Postwar Elite*. Named after the mythical [Jason](#) -- seeker of the Golden Fleece -- the group sprang into action in the late '50s as the product of a government that wanted independent opinions about science. Finkbeiner writes, "Their whole value lies in operating like logical, outspoken, un beholden, independent outsiders ... shooting down scientifically stupid ideas (and saving) the government millions if not billions of dollars."

Whenever the government needed advice (or in some cases when it didn't), the Jasons went to work, keeping their debates secret in order to have the freedom to be open and to gain access to classified documents. During the Vietnam War, they were instrumental in developing sensors to detect enemy troop movement along the [Ho Chi Minh trail](#); their ideas paved the way for the modern "electronic battlefield" but attracted scorn when their research -- and their existence -- was revealed in the [Pentagon Papers](#).

Over time, the Jasons discovered that their investigations amounted to more than fodder for internal government debate. Their research into bypassing atmospheric distortion to improve missile defense changed astronomy, Finkbeiner writes, and their analysis of nuclear stockpiles helped sway presidential policy. But with influence came questions within about their commitment to secrecy and public silence.

Finkbeiner, head of a writing program at Johns Hopkins University, makes difficult subjects accessible and interviews dozens of Jason participants, both on and off the record.

At times, the book turns tedious as Finkbeiner focuses on the Jasons' dry, bureaucratic history. But thankfully, she never neglects the elephant in the room: Should scientists be helping out the government -- and the military in particular -- in the first place? Or do scientists have an ethical responsibility to avoid any role in warfare, as some critics [argue?](#)

Ultimately, Finkbeiner stands behind the Jasons: "The more convinced a government is of the rightness of its political decisions, the more it needs to hear the advice of its scientists."

But the influence of the Jasons may be on the wane: As Finkbeiner points out, the Bush administration is hardly known for its coziness with the scientific establishment. Still, it's amazing that this group of designated doubters has managed to survive this long.

After June 13, 1971: Pentagon Papers Publication Causes Backlash against Scientists

One consequence of the Pentagon Papers' publication (see March 1971) is a heavy social and academic backlash against scientists on the Jason Project. The "Jasons," as they are sometimes called, are mostly physicists and other "hard" scientists from various universities who have worked as ad hoc consultants to the Pentagon since the Soviets launched their Sputnik satellite in October 1958. Though most of the Jasons are strongly opposed to the Vietnam War, and the Pentagon documents tell of the Jasons' ideas for "a real alternative to further escalation of the ineffective air war against North Vietnam," the public focuses on the Jasons' association with the government's war effort. After the Papers' publication, Mildred Goldberger, wife of scientist Marvin Goldberger, recalls that the Jasons' "name was mud." Jack Ruina, the head of the Pentagon's Advanced Research Project Agency (ARPA), which often worked with some of the Jasons, says that the Jasons became "the devil" in many eyes. Some of the scientists are publicly labeled "war criminals" and "baby killers," some have their offices burgled and their homes vandalized, and many face serious questions about their motives and commitment to pure, objective science. Some of the scientists repudiate the Jasons' work on behalf of the war effort; longtime member Goldberger tells one group of demonstrators, "Jason made a terrible mistake. They should have told [former Defense Secretary Robert] McNamara to go to hell and not have become involved at all." Others refuse to discuss Vietnam and their work with the Jason Project in their seminars and classes; one, Murray Gell-Mann, is forcibly removed from a Paris university lecture hall after refusing to defend his work

with the Jasons to his audience. Physicist Charles Towne accuses the universities of curtailing the Jasons' freedom of speech. Some of the scientists are falsely accused of helping produce plastic fragmentation bombs and laser-guided shells; some of them are compared to the Nazi scientists who developed nerve gas for use in the concentration camps. A November 1974 article in the Bulletin of the Atomic Scientists will sum up the debate: "The scientists became, to some extent, prisoners of the group they joined.... At what point should they have quit?" The decisions they faced were, the article will assert, "delicate and difficult." [Finkbeiner, 2006, pp. 102-113]

http://www.historycommons.org/timeline.jsp?nixon_and_watergate_tmIn_pentagon_papers=nixon_and_watergate_tmIn_pentagon_papers__leak&timeline=nixon_and_watergate_tmIn

Science Magazine on "Project Jason"

The 29 November 1991 issue of *Science* featured an article titled "Jason: Can A Cold Warrior Find Work" (Vol. 254: 1284-1286). The article's subtitle reads: "For more than 30 years, a secretive band of top-flight academics has been proposing, analyzing, and critiquing some of the most innovative ideas in national defense." This group, which calls itself "Jason," after the Greek hero, is "one of the most influential yet little known science clubs in the world..." According to *Science*

this exclusive cadre of about 45 academic scientists, mostly physicists, has been meeting every summer for more than 30 years. Its members a veritable star map of physics gather in secrecy to solve practical problems for the government, usually the DOD. Over the decades, the group has developed ideas that are far better known than the group itself.... In exchange for creativity, Jason's government sponsors have to accept the group's uncompromising independence.... the members of Jason choose their own projects, have no financial or political stake in a projects success, and, most important, feel free to say that a proposed project is dumb. (1284)

Science published this article to "bring this little publicized group out of the shadows," and to speculate on its future now that the arms race seems to have ended. But the scientists involved in Jason apparently are reluctant to talk about their work. What *Science* did uncover, however, will be disturbing to progressives (though it didn't seem to bother *Science* much). Apparently Jason's members have been turning to problems outside the realm of defense and are now working on solutions to the "the flow of illegal drugs across U.S. borders..."

In a page-length sidebar to the main article, *Science* ran another story: "Vietnam: An Awkward Time to Be a Jason." Those of you familiar with the *Pentagon Papers* might

remember that it was the Jasons who advised the U.S. government "to throw an electronic barrier across the Ho Chi Minh trail" (1285). Though the article mentions that some Jasons resigned from the organization because they refused to support the war effort, other Jasons were ready to pick up the slack:

Jason got wind of a proposal by Roger Fisher, a Harvard Law School professor interested in arms control: block the trail with a high-tech barrier. Eager to do something constructive about the war, Jason developed the idea under the leadership of William Nierenberg, past director of the Scripps Institution of Oceanography. Jason's version of the barrier was... an acoustic curtain that would betray passing troops and trucks.

The plan was to seed a 100-kilometer strip across Vietnam with bomblets little more than cherry bombs and acoustic sensors. When a soldier's boot or a truck tire triggered a bomblet, the sensors would pick up the report and send a signal to a central computer, which would pinpoint its source. Air strikes would then be dispatched to cut off the infiltration. (1285)

Apparently, the Pentagon was pleased with the Jason scheme and actually put it into action. *Science* quotes a proud Kenneth Case: "The detectors could hear soldiers peeing." Physicist Case claims that the barriers were a resounding success in Khe Sanh. Why? Well, they prevented the Marines from being cut off by providing information on where enemy troops congregated thus allowing the U.S. to accurately aim artillery and carefully drop bombs. You figure it out. *Science*, neglecting to point out that there was no American "victory" at Khe Sanh, allows this to pass without comment.

The implications of Jason's switch to non-defense related research are interesting. I wonder if we can look forward to a line of "bomblets" at the borders of the U.S., geared to keeping out illegal aliens and drug runners.

JASON Defense Advisory Group

From Wikipedia

This article is about the US defense advisory group. For other uses, see [Jason \(disambiguation\)](#). For the data serialization format, see [JSON](#).

JASON is an independent group of scientists which advises the [United States Government](#) on matters of science and technology. The group was first created as a way to get a younger generation of scientists — that is, not the older [Los Alamos](#) and MIT

[Radiation Laboratory](#) alumni — involved in advising the government. It was established in 1960 and has somewhere between 30 and 60 members.

For administrative purposes, JASON's activities are run through the [MITRE Corporation](#), a non-profit corporation in [McLean, Virginia](#), which contracts with the [Defense Department](#).

JASON typically performs most of its work during an annual summer study. Its sponsors include the Department of Defense (frequently [DARPA](#) and the [United States Navy](#)), the [Department of Energy](#), and the U.S. intelligence community. Most of the resulting JASON reports are classified.

The name "JASON" is sometimes explained as an acronym, standing either for "July-August-September-October-November", the months in which the group would typically meet; or, tongue in cheek, for "Junior Achiever, Somewhat Older Now". However, neither explanation is correct; in fact, the name is not an acronym at all. It is a reference to [Jason](#), a character from [Greek mythology](#). The wife of one of the founders (Mildred Goldberger [1]) thought the name given by the defense department, Project Sunrise, was unimaginative and suggested the group be named for a hero and his search.

JASON studies have included a now-mothballed system for communicating with submarines using extremely long radio waves ([Project Seafarer](#), [Project Sanguine](#)); an astronomical technique for overcoming the atmosphere's distortion ([Adaptive optics](#)); the many problems of missile defense; technologies for verifying compliance with treaties banning nuclear tests; **a 1982 report predicting CO₂-driven global warming**; and, most controversially, a system of computer-linked sensors developed during the Vietnam War which became the precursor to the modern electronic battlefield.

Membership

JASON members all have [security clearances](#), and they include physicists, biologists, chemists, oceanographers, mathematicians, and computer scientists. They are selected for their scientific brilliance, and, over the years, have included eleven [Nobel Prize](#) laureates and several dozen members of the [United States National Academy of Sciences](#).

Controversy

In 2002, [Democratic Congressman Rush Holt](#) of New Jersey sent letters to key members of the [House of Representatives](#) to protest [DARPA](#)'s decision to dismiss JASON.

DARPA not only sponsored many of JASON's studies, it was also the channel through which JASON received funding from other sponsors. DARPA's decision came after JASON's refusal to allow DARPA to select three new JASON members, none of whom fit the membership criterion of academic excellence. Since JASON's inception, new members have always been selected by its existing members. "This selection process maintains Jason's autonomy," Holt wrote, "and ensures that their decisions are not based on any obligation to the Department of Defense. Allowing the Department of Defense to

choose Jason's members would compromise the objectivity and independence of the group's advice." Since 2002, funding has been secured from an office higher in the defense hierarchy, the office of the [Director, Defense Research & Engineering](#).

Research

A selection of JASON studies is presented below. Many can be found in an online archive at the [Federation of American Scientists](#) site [2].

- High Frequency Gravitational Waves, (October 2008; JSR-08-506)
- Human Performance, (March 2008; JSR-07-625)
- Wind Farms and Radar, (January 2008; JSR-08-125)
- Navy Ship Underwater Shock Prediction and Testing Capability Study, (October 2007; JSR-07-200)
- Reliable Replacement Warhead Executive Summary, (September 2007; JSR-07-336E)
- Pit Lifetime, (January 2007; JSR-06-335)
- DAHRT, (October 2006; JSR-06-330)
- Engineering Microorganisms for Energy Production, (June 2006; JSR-05-300)
- Reducing DoD Fossil-Fuel Dependence, (September 2006; JSR-06-135)
- [NIF](#) Ignition (June 2005; JSR-05-340)
- Tactical Infrasound (May 2005; JSR-03-520)
- Quantifications of Margins and Uncertainties, (March 2005; JSR-04-330)
- High Performance Biocomputation (March 2005; JSR-04-300)
- Sensors to Support the Soldier (Feb. 2005; JSR-04-210)
- Horizontal Integration: Broader Access Models for Realizing Information Dominance (December 2004; JSR-04-312)
- Active Sonar Waveform, (June 2004; JSR-03-200)
- The Computational Challenges of Medical Imaging, (February 2004; JSR-03-300)
- Requirements for [ASCI](#), (October 2003; JSR-03-330)
- Portable Energy for the Dismounted Soldier, (June 2003; JSR-02-135)
- Turbulent Boundary Layer Drag Reduction, (May 2003; JSR-01-135)

- High Power Lasers, (April 2003; JSR-02-224)
- Biodetection Architectures, (February 2003; JSR-02-330)
- Opportunities at the Intersection of Nanoscience, Biology and Computation, (November 2002; JSR-02-300)
- Atmospheric Radiation Measurement (ARM) Program, (April 2002; JSR-01-315)
- Non-GPS Methods of Geolocation, (January 2002; JSR-00-105)
- Radiological Weapons, (2002; JSR-02-340)
- Biofutures, (June 2001; JSR-00-130)
- Spintronics, (February 2001; JSR-99-115)
- Advantage of Base-Line Redundancy in Sparse Apertures, (September 2000; JSR-2000-551)
- Space Infrastructure for 2020, (September 2000; JSR-99-125)
- Imaging Infrared Detectors II, (June 2000; JSR-97-500)
- Molecular Electronics: Interfacing the Nano- and Micro-Worlds, (May 2000; JSR-99-120)
- Power Sources for Ultra Low Power Electronics, (June 2000; JSR-98-130)
- 100 LBS TO Low Earth Orbit (LEO): Small-Payload Launch Options, (January 2000; JSR-98-140)
- Data Mining and the Human Genome (January 2000; JSR-99-310)
- Primary Performance Margins (December 1999; JSR-99-305) (unclassified introduction)
- System-Level Flight Tests, December 1999; JSR-98-310)
- Remanufacture (of Nuclear Weapons), (October 1999; JSR-99-300)
- Army Battlefield Communications (September 1999; JSR-96-605)
- Characterization of Underground Facilities (April 1999; JSR-97-155)
- Non-destructive Evaluation and Self-Monitoring Materials (April 1999; JSR-98-145)
- Electro Thermal Chemical Gun Technology Study (March 1999; JSR-98-600)
- Small Unit Operations (June 1998; JSR-97-142)
- Signatures of Aging Revisited (March 1998; JSR-98-320)

- Signatures of Aging [of nuclear weapons] (January 1998; JSR-97-320)
- Counterproliferation (January 1998; JSR-94-140)
- High Energy Density Explosives (October 1997; JSR-97-110)
- [Human Genome Project](#) (October 1997; JSR-97-315)
- Small Scale Propulsion: Fly on the Wall, Cockroach in the Corner, Rat in the Basement, Bird in the Sky (September 1997; JSR-97-135)
- Subcritical Experiments (March 1997; JSR-97-300)
- New Technological Approaches to Humanitarian Demining, November 1996; JSR-96-115)
- [Quantum Computing](#) (July 1996; JSR-95-115)
- Inertial Confinement Fusion (ICF) Review (March 1996; JSR-96-300)
- DNA Computing (October 1995; JSR-95-116)
- JASON Nuclear Testing Study: Summary and Conclusions, August 1995; JSR-95-320)
- Accelerator production of tritium - 1995 review (June 1995; JSR-95-310)
- Accelerator based conversion of plutonium (March 1995; JSR-94-310)
- Microsurveillance of the Urban Battlefield (February 1995; JSR-95-125)
- JASON Nuclear Testing Study: Summary and Conclusions (1995; JSR-95-320)
- Jason Final Report, January 1995; JSR-94-105)
- LIDAR (September 1994; JSR-93-310)
- Science based stockpile stewardship (November 1994; JSR-94-345)
- Counter proliferation /draft/ (August 1994; JSR-94-140)
- MTPE /draft/ (August 1994; JSR-94-750)
- [ARM](#) /draft/ (July 1994; JSR-94-300)
- CO2 greenhouse mitigation (May 1994; JSR-93-340)
- Underwater explosions ONR/DNA/NAVSEA /draft/ (January 1994; JSR-94-220)
- Clouds and radiation - a premier [sic] (January 1993; JSR-90-307)
- Verification of dismantlement of nuclear warheads and controls on nuclear materials (January 1993; JSR-92-331)

- Small satellites and RPVs (January 1993; JSR-91-197)
- SCHAMMP (Dec 1992; JSR-91-310)
- JASON Global Grid Study (July 1992; JSR-92-100)
- ARM review 1991 /draft/ (September 30, 1991; JSR-91-300)
- Small satellite and RPAs in global change research /draft/ (August 1991; JSR-91-330-12)
- Small Satellites (August 3, 1991; JSR-91-330-10)
- ARM /draft/ (July 1991; JSR-91-300)
- Verification Technology: Unclassified Version (October 1990; JSR-89-100A)
- High gain arrays /draft/ (July 1990; JSR-90-210)
- Detecting the greenhouse signal (May 1990; JSR-89-330)
- JASON Review of Brilliant Pebbles, Vol. I, Executive Summary (September 1989; JSR-89-900)
- Neutrino Detection Primer (March 1988; JSR-84-105)
- Airships (1988; JSR-88-230)
- Occultation study summary (February 1987; JSR-86-108)
- JASON study on OTHB radars (1987; JSR-87-801)
- Development stability of strategic defenses (October 1986; JSR-85-926)
- Submarine detection: Acoustic contrast versus Acoustic glow (July 1985; JSR-85-108)
- Seismic discrimination (April 1985 ; JSR-84-117)
- SEASAT Report (January 1985; JSR-83-203)
- Multiple scattering effects in radar observations of wakes (August 1984; JSR-84-203B)
- [SEASAT](#) III & IV (August 1984; JSR-84-203)
- [SEASAT](#) Report (March 1984; JSR-83-203)
- The Long Term Impact of Atmospheric Carbon Dioxide on Climate: preliminary report (1979) JSR-78-07 and (1980) JSR-79-04; more fully published as MacDonald et al., (1982)

- [Sonic Boom](#) Report (November 1978; JSR-78-09)
- Laser Propulsion Study (Summer 1977; JSR-77-12)
- Low frequency sound propagation in a fluctuating infinite ocean II (June 1975; JSR-74-6)
- Low frequency sound propagation in a fluctuating infinite ocean (April 1974; JSR-73-10)
- The effect of surface currents on the equilibrium surface wave spectral energy density (October 1973; JSR-73-2)
- Collected working papers on internal-- surface wave interactions and related problems (August 2, 1972; JASON-72-Working Paper no.33)
- [Internal Wave](#)-Surface Wave Interactions Revisited (March 1972; Paper P-853)
- Report of the 1971 JASON Laser Summer Study. Volume I. Recommendations and Conclusions (1971)
- Report of the 1971 JASON Laser Summer Study. Volume II. Supporting Appendices A-M (1971)
- Generation and Airborne Detection of Internal Waves from an Object Moving through a Stratified Ocean, Vol II (April 1969; S-334)
- [Tactical Nuclear Weapons](#) in Southeast Asia (March 1967)

See also

- [Sonar](#)
- [Laser](#)
- [Nanotechnology](#)
- [Human Genome Project](#)
- [Quantum computer](#)
- [Spintronics](#)
- [Nuclear testing](#)
- [Explosion](#)
- [Sonic boom](#)
- [Nuclear weapon](#)
- [Central Intelligence Agency](#)

- [DIA](#)
- [NSA](#)
- [MITRE](#)
- [Surveillance](#)
- [Warfare](#)
- [DARPA](#)

Further reading

- Ann Finkbeiner, *The Jasons : The Secret History of Science's Postwar Elite*, Viking/Penguin , April 6, 2006, [ISBN 0-670-03489-4](#)
- John Horgan, [Rent-a-Genius](#), New York Times Book Review, April 16, 2006.

External links

- [JASON Defense Advisory Panel Reports](#)
 - [Nautilus group information](#)
 - [Science Against the People](#)
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The Jason Project: Academic Freedom and Moral Responsibility

"You don't have to be German to be a good German."
(Graffiti on the wall of Pupin Hall, Columbia University, April, 1972.)

On April 24, 1972, a group of 40 faculty members from Columbia University and other schools in the New York area assembled in a light drizzle in front of Columbia's Low Library, the university's administrative center. They tied identifying white arm bands on each other, and a spokesman announced the start of a nonviolent protest against the activities of five Columbia physics professors.

As the group walked toward Pupin Hall, home of the physics department and other scientific research, university President William J. McGill attempted to dissuade them.

Failing that, he obtained assurances (which were honored) that the protest would be peaceful and that valuable equipment in the building would be safeguarded. The faculty members entered Pupin to protest academic responsibility for a U.S. air war pouring death on Indochina; President McGill went back to his command post in Low Library to plan their arrest and the restoration of order to his troubled campus.

The Pupin protest, in the words of one leaflet, "was not directed against students, faculty, workers or President McGill. There was no demand that anyone be fired." The anti-war protesters' demand was that Professors Henry J. Foley, Leon Ruderman, Norman Christ, Richard Garwin and Malvin Ruderman resign from the Jason Division of the Institute for Defense Analyses (IDA). The Jason members were charged with participation in the scientific research that had led to the electronic battlefield, the air war and the use of heinous weapons in Indochina.

<http://www.questia.com/googleScholar.qst;jsessionid=KZvTlwJn8xMj3cGTvhTyFZx1HJrLvTFL5jWrc27CKSXhPXt242T!-1860105440!1173087732?docId=97732480>

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Jason and the secret climate change war

A shadowy scientific elite codenamed Jason warned the US about global warming 30 years ago but was sidelined for political convenience

Today the scientific argument about the broad principles of what we are doing to the Earth's climate is over. By releasing huge quantities of greenhouse gases such as carbon dioxide and methane into the atmosphere we are warming the world.

Since the early 1990s there has been a furious debate about global warming. So-called climate change "sceptics" have spent years disputing almost every aspect of the scientific consensus on the subject. Their arguments have successfully delayed significant political action to deal with greenhouse gas emissions. Recent research reveals how the roots of this argument stretch back to two hugely influential reports written almost 30 years ago.

These reports involve a secret organisation of American scientists reporting to the US Department of Defense. At the highest levels of the American government, officials pondered whether global warming was a significant new threat to civilisation. They turned for advice to the elite special forces of the scientific world – a shadowy organisation known as Jason. Even today few people have heard of Jason. It was established in 1960 at the height of the cold war when a group of physicists who had

helped to develop the atomic bomb proposed a new organisation that would – to quote one of its founders – “inject new ideas into national defence”.

- Correction: Jason and the secret climate change war

An article on climate change ([News Review](#), September 7) stated that Ronald Reagan had commissioned a report about global warming from William Nierenberg, the distinguished American scientist. This was incorrect: the US Congress requested the report from the National Academy of Sciences before Reagan’s election.

So the Jasons (as they style themselves) were born; a self-selected group of brilliant minds free to think the unthinkable in the knowledge that their work was classified. Membership was by invitation only and they are indeed the cream. Of the roughly 100 Jasons over the years, 11 have won Nobel prizes and 43 have been elected to the US National Academy of Sciences.

For years, being a Jason was just about the best job going in American science. Every summer the Jasons all moved to San Diego in California to devote six weeks to working together. They were paid well and rented houses by the beach. The kids surfed while their dads saved the world. Less James Bond, more Club Med.

Today the Jasons still meet in San Diego in a quaint postwar construction with more than a hint of Thunderbirds about it. In 1977 they got to work on global warming. There was one potential problem. Only a few of them knew anything about climatology. To get a better understanding they relocated for a few days to Boulder, Colorado, the base for NCAR – the National Center for Atmospheric Research – where they heard the latest information on climate change. Then, being physicists, they went back to first principles and decided to build a model of the climate system. Officially it was called Features of Energy-Budget Climate Models: An Example of Weather-Driven Climate Stability, but it was dubbed the Jason Model of the World.

In 1979 they produced their report: coded JSR-78-07 and entitled The Long Term Impact of Atmospheric Carbon Dioxide on Climate. Now, with the benefit of hind-sight, it is remarkable how prescient it was.

Right on the first page, the Jasons predicted that carbon dioxide levels in the atmosphere would double from their preindustrial levels by about 2035. Today it’s expected this will happen by about 2050. They suggested that this doubling of carbon dioxide would lead to an average warming across the planet of 2-3C. Again, that’s smack in the middle of today’s predictions. They warned that polar regions would warm by much more than the average, perhaps by as much as 10C or 12C. That prediction is already coming true – last year the Arctic sea ice melted to a new record low. This year may well set another record.

Nor were the Jasons frightened of drawing the obvious conclusions for civilisation: the cause for concern was clear when one noted “the fragility of the world’s crop-producing

capacity, particularly in those marginal areas where small alterations in temperature and precipitation can bring about major changes in total productivity”.

Scientific research has since added detail to the predictions but has not changed the basic forecast. The Jason report was never officially released but was read at the highest levels of the US government. At the White House Office of Science and Technology Policy, Frank Press, science adviser to President Jimmy Carter, asked the National Academy of Sciences for a second opinion. This time from climate scientists.

The academy committee, headed by Jule Charney, a meteorologist from Massachusetts Institute of Technology (MIT), backed up the Jason conclusions. The Charney report said climate change was on the way and was likely to have big impacts. So by the late 1970s scientists were already confident that they knew what rising carbon dioxide levels would mean for the future. Then politics got in the way. And with it came the birth of climate change scepticism.

In 1980 Ronald Reagan was elected president. He was pro-business and pro-America. He knew the country was already in the environmental dog house because of acid rain. If global warming turned into a big issue, there was only going to be one bad guy. The US was by far the biggest producer of greenhouse gases in the world. If the president wasn't careful, global warming could become a stick to beat America with.

So Reagan commissioned a third report about global warming from Bill Nierenberg, who had made his name working on the Manhattan Project developing America's atom bomb. He went on to run the Scripps Institution of Oceanography where he had built up the Climate Research Division. And he was a Jason. Nierenberg's report was unusual in that individual chapters were written by different authors. Many of these chapters recorded mainstream scientific thinking similar to the Charney and Jason reports. But the key chapter was Nierenberg's synthesis – which chose largely to ignore the scientific consensus.

His basic message was “calm down, everybody”. He argued that while climate change would undoubtedly pose challenges for society, this was nothing new. He highlighted the adaptability that had made humans so successful through the centuries. He argued that it would be many years before climate change became a significant problem. And he emphasised that with so much time at our disposal, there was a good chance that technological solutions would be found. “[The] knowledge we can gain in coming years should be more beneficial than a lack of action will be damaging; a programme of action without a programme for learning could be costly and ineffective. [So] our recommendations call for ‘research, monitoring, vigilance and an open mind’.”

Overall, the synopsis emphasised the positive effects of climate change over the negative, the uncertainty surrounding predictions of future change rather than the emerging consensus and the low end of harmful impact estimates rather than the high end. Faced with this rather benign scenario, adaptation was the key.

If all this sounds familiar, it should. Similar arguments have been used by global warming sceptics ever since Nierenberg first formulated them in 1983. Global warming

was duly kicked into the political long grass – a distant problem for another day. At a political level, Nierenberg had won.

But this was only the beginning of his involvement in what eventually became a movement of global warming sceptics. A year after his report came out he became a co-founder of the George C Marshall Institute, one of the leading think tanks that would go on to challenge almost every aspect of the scientific consensus on climate change. Nierenberg hardened his position. He began to argue not just that global warming wasn't a problem, but also that it wasn't happening at all. There was no systematic warming trend, the climate was simply going through its normal, natural fluctuations.

The creed that Nierenberg originated all those years ago still has its dwindling band of followers. Sarah Palin, the Republican vice-presidential candidate, recently responded to a question about global warming by saying: "I'm not one who would attribute it to being man-made."

Professor Naomi Oreskes is a historian of science, researching the history of climate change. Dr Jonathan Renouf is producer of Earth: The Climate Wars, 9pm tonight on BBC2

November 1, 2008

A response to "Jason and the Secret Climate Change War"

From Nicolas Nierenberg, Victoria Tschinkel, Walter Tschinkel

We feel the article "[Jason and the secret climate change war](#)" completely misrepresents the early years of climate research as well as the contribution of Dr. William Nierenberg.

There is a central error, which is that the report, "Changing Climate" was not "commissioned" by the Reagan Administration, but was actually requested by an act of Congress under then President Jimmy Carter (see correction above). The report was in fact a product of the independent National Academy of Sciences. The chair of the committee, which produced the Academy report, was Nierenberg, and the members of the committee were some of the most distinguished scientists of the time. The committee membership was in place by October 1980 prior to Ronald Reagan's election.

The article also misrepresents the contents and nature of "Changing Climate." Unlike the JASON and Charney reports, which focused solely on atmospheric temperature sensitivity to CO₂ increases, "Changing Climate", as the US Congress mandated, was the first comprehensive look at climate change. As such it dealt with a broad range of issues. One chapter dealt with forecasts of future fossil fuel emissions, another with the carbon cycle, and the likely timing of CO₂ increases, still another estimated future sea level rise based on the forecasted increase in temperatures. In addition Nobel Laureate Thomas Schelling wrote a final chapter on the potential societal impacts of these physical changes. Since the topics were so diverse the committee decided that different authors

would be responsible for the contents of the different chapters and that each would be separately peer-reviewed.

To bring all this together the committee decided to create a synthesis, which would include the key points from the various chapters. These were also considered to be the conclusions to which, as they put it, they could all “wholeheartedly agree.” A staff member of the committee, Jesse Ausubel, wrote the synthesis with some editing by Nierenberg. A review of the synthesis shows that it simply follows the contents of the various chapters. It did not, as the article claims, play up positive effects of climate change, play down the likely effects or emphasize the uncertainties. It reported fairly and accurately the scientific and social conclusions of the separately written chapters. It also included a brief set of policy recommendations that were the conclusions of the committee.

An Executive Summary was created from the synthesis, and printed essentially verbatim on the front page of the New York Times the day after the report was officially published. We are not aware of any record of any dissent from climate scientists, or anyone else for that matter, to the published contents of the report. The obvious conclusion is that the report’s conclusions and recommendations were considered absolutely mainstream at the time.

It is unclear why the article claims that the JASON report was never officially published. Naomi Oreskes’ own academic work references the published version of the paper. In addition the article is misleading in implying that neither the Charney nor the Jason report made any policy recommendations. In fact the JASON report questioned whether future policy actions would be desirable, and the Charney report disclaimed sufficient scientific knowledge to predict the impacts on society.

It is difficult to prove a negative, but we know of no case where Nierenberg stated that CO₂ increases were not a problem. We also are not aware of his stating that there were no temperature changes or that all the changes were due to natural variability. Later he did become skeptical of the ability of large-scale climate models to accurately predict the impacts of increasing CO₂, and it was his opinion that the likely warming would be on the lower end of the ranges typically discussed during the late eighties and nineties. He was also highly skeptical of the efficacy of the political solutions that had so far been proposed at the time of his death in 2000. We feel that he had earned the right to those opinions even if many, or even most scientists disagreed.

Characterizing JASON as a secret or shadowy organization is just silly. Every year when they meet there are signs all over La Jolla indicating that they are in town. This has been true throughout their history. In addition the membership is well known. It is true that in many cases they work on classified reports, but the climate report referenced in this article was never a secret, and eventually was published in book form. Copies can be obtained easily on the Internet.

William Nierenberg was a remarkable scientist and administrator. He served as an advisor to both Republican and Democratic Administrations and he deserves better than this article.

For readers who are interested in more details about this subject, as well as a discussion of the broader academic issues involved we refer them to our web site www.nicolasnierenberg.com.

Nicolas Nierenberg is a technology entrepreneur who currently serves on the board of several companies, he is also a former chairman and currently member of the board of trustees of the Burnham Institute for Medical Research and is a member of the Director's Council at the Scripps Institution of Oceanography. Victoria Tschinkel is Chairman of 1000 Friends of Florida, former Director of the Nature Conservancy in Florida, and former Florida Secretary of Environmental Regulation. Walter Tschinkel is an R. O. Lawton Distinguished Professor in the Department of Biological Science at Florida State University in Tallahassee.

New Jason Satellite Indicates 23-Year Global Cooling

[Dennis Avery](#)

Canada Free Press

May 6, 2008

Now it's not just the sunspots that predict a 23-year global cooling. The new Jason oceanographic satellite shows that 2007 was a "cool" La Nina year—but Jason also says something more important is at work: The much larger and more persistent Pacific Decadal Oscillation (PDO) has turned into its cool phase, telling us to expect moderately lower global temperatures until 2030 or so.

For the past century at least, global temperatures have tended to mirror the 20-to 30-year warmings and coolings of the north-central Pacific Ocean. We don't know just why, but the pattern of the last century is clear: the earth warmed from about 1915 to 1940, while the PDO was also warming (1925 to 46). The earth cooled from 1940 to 1975, while the PDO was cooling (1946 to 1977). The strong global warming from 1976 to 1998 was accompanied by a strong and almost-constant warming of the north-central Pacific. Ancient tree rings in Baja [California](#) and Mexico show there have been 11 such PDO shifts since 1650, averaging 23 years on length.

Researchers discovered the PDO only recently—in 1996—while searching for the reason salmon numbers had declined sharply in the Columbia River after 1977. The salmon catch record for the past 100 years gave the answer—shifting Pacific Ocean currents. The PDO favors the salmon from the Columbia for about 25 years at a time, and then the salmon from the Gulf of [Alaska](#), but the two fisheries never thrive at the same time. Something in the PDO favors the early development of the salmon smolts from one

region or the other. Other fish, such as halibut, sardines, and anchovies follow similar shifts in line with the PDO.

The PDO seems to be driven by the huge Aleutian Low in the Arctic—but we don't know what controls the Aleutian Low. Nonetheless, 22.5-year “double sunspot cycles” have been identified in South African rainfall, Indian monsoons, Australian droughts, and rains in the United States' far southwest as well. These cycles argue that the sun, not CO₂, controls the earth's temperatures.

Dr. Henrik Svensmark's recent experiments at the Danish Space Research Institute seem to show that the earth's temperatures are importantly affected by the low, wet clouds that deflect more or less solar heat back into space. The number of such clouds is affected, in turn, by more or fewer cosmic rays hitting the earth. The number of earthbound cosmic rays depends on the extent of the giant magnetic wind thrown out by the sun.

All of this defies the “consensus” that human-emitted carbon dioxide has been [responsible](#) for our global warming. But the evidence for man-made warming has never been as strong as its Green advocates maintained. The earth's warming from 1915 to 1940 was just about as strong as the “scary” 1975 to 1998 warming in both scope and duration—and occurred too early to be blamed on human-emitted CO₂. The cooling from 1940 to 1975 defied the Greenhouse Theory, occurring during the first big surge of man-made greenhouse emissions. Most recently, the climate has stubbornly refused to warm since 1998, even though human CO₂ emissions have continued to rise strongly.

The Jason satellite is an updated and more-accurate version of the Poseidon satellite that has been monitoring the oceans since 1992, picking up ocean wind speeds, wave heights, and sea level changes. Jason is run by NASA's Jet Propulsion Laboratory and a French team.

How many years of declining world temperature would it take now—in the wake of the ten-year non-warming since 1998—to break up Al Gore's “climate change consensus”?