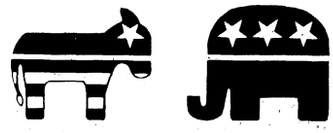
Science and the Party Platforms



Thanks to direct input from scientists in the drafting process, the Republican platform contains detailed proposals for science; the Democratic platform offers few specifics

SCIENCE AND TECHNOLOGY traditionally have played little part in the campaign platforms of America's political parties. But this year the Republican platform includes the lengthiest and most detailed science plank either party has authored in recent history.

In general, the Republican plank pays homage to the importance of science in the economy and calls for improved science education, "generous funding" for the National Institutes of Health, and improved funding through the National Science Foundation for college and university laboratories. But it also is specific in places, endorsing the Superconducting Super Collider (SSC) project, the "Mission to Planet Earth" to study Earth's oceans, biosphere, and geology using space-based observatories, a manned mission to Mars by the year 2000, continued moon exploration, and a manned space station in the 1990s. It also vows to make permanent the tax cut for R&D investment.

By comparison, the 1984 Republican platform contained only four sentences—a total of 85 words—on science and technology, and avoided specifics.

The Democrats, meanwhile, spend less than three paragraphs of their short platform on science issues, and focus on the importance of science and technology in bolstering international competitiveness. They specifically call only for the United States to convene international conferences on ozone depletion, the greenhouse effect, tropical deforestation, and other major environmental issues.

One reason for the difference is that three prominent physicists—Paul Frampton of the University of North Carolina, Roy Schwitters of Harvard, and Nobel laureate Steven Weinberg of the University of Texas—briefed a subcommittee of the Republican platform committee in New Orleans on 8 August. It is thought to be the first time either party platform committee has taken extensive formal testimony from scientists. Their statements and the proposed plank Frampton wrote form the backbone of the Republican science plank.

In addition, presidential science adviser William Graham testified before the subcommittee on space issues, also believed to be a first.

"I'm delighted," Frampton said. "I'm especially pleased that the SSC was specifically mentioned, but I think it's a strong plank for science overall."

Not everything the three recommended was included, however. The physicists' passing recommendation of the human genome project did not make the plank, nor did their support for the Advanced X-ray Astronomy Facility. Weinberg had also called for a presidential science adviser "of independent distinction with direct access to the president" because the current system "does not serve the President or the nation very well." Without criticizing recent science advisers, Weinberg argued that the President's 1983 Strategic Defense Initiative proposal did not reflect the best scientific advice available. The platform authors do call for a new Science Advisory Council to augment the presidential science adviser, but such a council already exists.

The move to bring science into campaign politics began in late May, when AAAS executive officer Alvin Trivelpiece and law-

Advice on a Science Adviser

A plea to reinstate presidential science advice to the status it had a quarter-century ago was delivered last week to the two major presidential candidates. A letter, signed by the leaders of 23 science and engineering societies, urges that a science adviser be appointed early in the next Administration and that the appointee "should have direct access to the President."

The letter says there is a "need for a coherent science and technology policy," and that leadership in this "must come from the White House." To that end, the letter urges the appointment of "a distinguished scientist or engineer who would enjoy not only the confidence of the President but the respect and trust of the science and technology community."

The appointment should come early, the letter says, so that the adviser can help select people to fill sub-cabinet positions in agencies that deal with science and technology. "A hiatus in filling the position of science and technology adviser at the start of a new Administration could prove costly to the nation," the society leaders state.

The letter was unveiled at a press conference on 25 August by three of the society presidents who signed it—Val Fitch of the American Physical Society, Howard Schachman of the Federation of American Societies for Experimental Biology, and Russell Drew of the Institute of Electrical and Electronics Engineers. There was much nostalgic reference to what Fitch called the "halcyon days" of the Eisenhower-Kennedy era, when science advisers had the ear of the President and a powerful President's Science Advisory Committee (of which Fitch was a member) provided a link to the scientific community.

The letter was billed as a nonpartisan appeal to the candidates of both parties. Fitch, Schachman, and Drew noted that the science adviser was named relatively late in both the Carter and Reagan administrations—after many science positions had been filled and after the new Administration's first budget proposals were made. The adviser in both administrations has occupied a mid-level position in the Executive Office of the President.

The societies whose leaders signed the letter have a combined membership of more than 750,000. Among those missing from the list are the American Chemical Society and the AAAS. Alvin Trivelpiece, AAAS's executive officer, said "AAAS does not take a position on matters of this sort. As an objective observer our goal is to bring both sides of issues to the fore." ■ COLIN NORMAN

yer Ed Forgotson, a lobbyist representing North Carolina in the competition for the SSC, drafted a science plank for the Republicans and took it to the Bush campaign. After discussions with the campaign staff, Forgotson told *Science*, the two decided their best move was to try to influence the party platform.

Forgotson called on his friends Schwitters and Frampton, former project director of North Carolina's bid to capture the SSC. Frampton, in turn, enlisted Weinberg. Forgotson then used his political connections; he was deputy finance chairman of Ronald Reagan's reelection campaign in 1984 and worked for Senator Bob Kasten (R–WI) in his 1980 and 1986 campaigns. Kasten was chairman of the Republican platform committee this year.

Trivelpiece had his own connections. He was a Reagan appointee at the Department of Energy before coming to AAAS. He also pitched in by offering advice on how to prepare and present testimony. In addition, he donated some $500 of his own money to pay the three physicists' airfare to New Orleans.

Trivelpiece said his efforts were nonpartisan. "I would have been pleased whichever party had a strong science plank," he said. "I'm hoping this will prod the Democrats into addressing these issues as well."

The lack of science in the Democratic platform seems to be the result of the insular process by which it was developed. The wording was hammered out at committee meetings in Mackinac Island, Michigan, and Denver with little input from outsiders. The brevity and vague wording of the platform reportedly was a strategic ploy to keep the document from looking like a special interest wish-list.

The approach did not invite outside advice. Fermilab director Leon Lederman, for example, at Forgotson's suggestion, wanted to offer a plank for the Democrats. "But by the time we got our thinking together, the word was out that the platform had already been written," Lederman said.

There are unconfirmed reports of scientists approaching Democratic platform officials and being rebuffed. Democratic platform officials could not be reached for comment.

Observers caution that there is a difference between a party platform and a candidate's platform. On 15 August, for example, Dukakis came out for a manned space station, which was not included in his party's platform. In doing so, he seemed to steal an issue from George Bush, who had not publicly endorsed the program in this campaign, although his party did.

■ GREGORY BYRNE

The SSC and the Environment

If the Superconducting Super Collider (SSC) is built at the site proposed by Arizona, 101 miles of new roads will have to be constructed. Building the facility in Michigan would require only 10 miles of new roads; but it could result in the loss of 2800 acres of wetlands.

Those are among the preliminary findings of an analysis* of the potential environmental impacts of constructing and operating the SSC at the seven sites that the Department of Energy (DOE) is currently considering for the proposed atom smasher. The department is now comparing the costs of each proposal and evaluating the sites against six technical criteria, of which environmental impact is the third most important (geology and tunneling considerations rank higher). It plans to identify a preferred site in November, issue a final environmental analysis in December, and announce the winning site in January 1989. So far, however, Congress has not approved construction funds for the facility.

The environmental analysis indicates that construction of the 53-mile SSC tunnel, associated facilities, roads, and power supplies, will have obvious environmental consequences. A peak work force of between 9,500 and 11,000 will bring economic benefits but will also place increased pressure on local resources. DOE's preliminary findings indicate, however, that there appear to be no environmental show-stoppers at any of the sites. On the key question of water supplies, for example, the project would increase depletion of ground-water resources at four of the sites, but in no case would it place an undue burden on supplies.

The following are among the impacts identified by DOE at each site:

■ **Arizona.** The proposed site is on sparsely populated arid land 30 miles southwest of Phoenix. In addition to new roads, 41 miles of electric power lines would need to be laid down. No wetlands would be destroyed. Water would be supplied entirely by deep wells—the water table is generally at least 350 feet below the surface—and some decline in local aquifers may result. Only four residences would need to be relocated.

■ **Colorado.** The proposed site is in an agricultural area 65 miles northeast of Denver. Ninety-four miles of new roads would be required and 99 miles of new power lines. Construction would threaten only 20 acres of wetlands, although there are substantial wetland areas nearby. Only five residences would need to be relocated.

■ **Illinois.** The proposed site is adjacent to the Fermilab facility, 40 miles west of Chicago. It is a region that includes suburban housing, commerce, light industry, and farming. Only 8 miles of new roads and 2 miles of new power lines would be required. About 850 acres of wetlands would be threatened. Some 219 residences and businesses would have to be relocated.

■ **Michigan.** Michigan's proposed site is 35 miles northwest of Ann Arbor, in an ecologically diverse region including wetlands and forests. It currently supports agriculture and timber production. Only 10 miles of new roads would be required and 6 miles of new power lines. The site includes 2800 acres of wetlands. A total of 221 residences and businesses would have to be relocated.

■ **North Carolina.** The proposed site is about 15 miles northeast of Durham, in a relatively undisturbed forested area. It includes significant wetland resources and primarily supports commercial logging. A total of 285 acres of wetlands would be threatened by the SSC. Some 38 miles of new roads would be required and 4 miles of new power lines. Some 111 residences and businesses would have to be relocated.

■ **Tennessee.** The proposed site is about 30 miles southeast of Nashville, in an area dominated by mixed deciduous forests. Small-scale farming and timber production are the major commercial activities in the region. Significant wetlands and aquatic resources are near the proposed site, although less than 10 acres of wetlands would be lost from construction. A total of 116 residences and businesses would have to be relocated.

■ **Texas.** The proposed site is about 25 miles south of Dallas and 35 miles southeast of Fort Worth, in a region that is at the transition between eastern deciduous forests and the arid plains. Thirty-one miles of new roads and 5 miles of power lines will be required. Construction would affect less than 10 acres of wetlands. A total of 224 residences and businesses would have to be relocated. ■ COLIN NORMAN

**Superconducting Super Collider: Draft Environmental Impact Statement*, Department of Energy, August 1988.