In reading the report, the editorial writers for the *Journal* said, "we couldn't help but wonder what purpose is served by having 17 physicists with other full-time jobs trying to second-guess the Pentagon's multibillion dollar, 2000-person-strong SDI effort.... Are such reports undertaken out of curiosity about lasers and particle beams? Or are they perhaps undertaken to appease vocal political activists within the physics profession?"

Leading opinion magazines have been relatively reticent about the DEW study—neither *The New Republic* nor *The Nation* has seen fit as yet to comment on it, for example, and William Rusher, publisher of *The National Review*, commented not on the report or its authors but rather on the reception it could be expected to get.

Rusher's method was to declare The American Physical Society's DEW panel guilty by association with "political lefties like the notorious Union of Concerned Scientists" and Carl Sagan, who, Rusher said, has been warning Americans for years that "failure to follow his advice on various political subjects such as arms control might well result in what he lipsmackingly calls 'the extinction of the human race.'"

"As more and more scientific subjects... have begun to have political implications," Rusher wrote in a piece syndicated by Newspaper Enterprise Association, "a great many scientists who ought to know better have succumbed to the temptation to increase the pressure for certain political results by threatening dire scientific consequences if the body politic doesn't obey their instructions. As usually happens with people who cry 'Wolf' too often, they got a gratifying reaction the first few times, but in due course people have learned to ignore them."

Well before the release of the DEW study it seemed apparent that much of the press and public was loath to accept pessimistic evaluations of Star Wars from scientists, weapons experts and arms control specialists. It remains to be seen whether the DEW study will have a strong and lasting impact on general public opinion or whether, after one day's intense coverage and some instant analysis, it will be largely forgotten. —WILLIAM SWEET

Research reactor closed at Berkeley for mixed reasons

The University of California at Berkeley announced in January that it would close a 1-MW research reactor that had been a subject of some controversy for several years. The previous month, Berkeley physicist Charles L. Schwartz had charged that the reactor had been used for military research by private contractors such as Lockheed and Aerospace in violation of a university rule that no classified research be done on campus. Schwartz has said that the closing of the reactor could be "properly called a victory for antinuclear sentiment in the community and is of interest elsewhere."

University officials say that the decision to shut down the reactor was motivated primarily by low usage of the reactor for research and by the university's need to house the computer science unit of its electrical engineering department in a new building over the reactor. A secondary reason for closing and dismantling the reactor, university Vice Chancellor Roderic Park has conceded, was to "get rid of all the political hassling that goes along with it. If the faculty wanted to keep it, we would have kept it."

Thomas Pigford, chairman of the nuclear engineering department and director of the reactor, says that the department did not oppose the decision to shut down the reactor. In fact, he says, the department pointed out to the university administration about four years ago that use of the reactor by faculty and students for research was very small. That set a review process in motion, and in the end the department took the position that it would prefer to keep the reactor open but recognized that its low usage might not justify the space it occupied.

In Pigford's opinion, opposition from Schwartz, like-minded students and faculty, and the Berkeley city council figured "not at all" in the decision. The city council has opposed the reactor for over 10 years, Pigford says, and "we are all quite accustomed to that."

Decommissioning. Dismantling and removal of the 1-MW reactor is expected to cost about $3 million. The university regents have pledged $625 000 toward decommissioning costs, and the nuclear engineering department is seeking funds from other sources to cover the remainder of the costs.

To date, according to Pigford and sources at the Nuclear Regulatory Commission, five research reactors of 1 MW or greater power have been decommissioned. Each case is different, however, and so the estimated cost of dismantling the Berkeley reactor is quite approximate.

The NRC rule requiring conversion of university and industry research reactors to low-enriched uranium was not a factor in the decision to close the Berkeley reactor, which already ran on low-enriched uranium. When the NRC rule first was proposed nearly three years ago, some predicted that many other reactors would be closed as well (PHYSICS TODAY, December 1984, page 47).

The NRC rule went into effect last March, and so far NRC officials have detected no case in which a reactor was closed strictly because of the rule. According to Robert E. Carter, a project manager in the NRC licensing division, a handful have been closed, including small reactors at the University of California in Los Angeles and Santa Barbara and at Virginia Polytechnic Institute, but university administrators have said that this was only partly because of the conversion rule, and partly because of low usage and general lack of support for the reactors.

"It is not always clear to us what the reasons are," Carter says. "One day people say it's mainly one thing, one day another."

—WILLIAM SWEET

US and EC conclude fusion agreement

US government and European Community officials signed an agreement between the US Department of Energy and EURATOM on 15 December providing for cooperation in magnetic confinement fusion. US and European researchers have cooperated on specific topics in fusion for years, both informally and under the aegis of the International Energy Agency in Paris, but this is the first time the United States and the European Communities have concluded an umbrella agreement providing general guidelines for cooperation in magnetic confinement fusion.

With exchanges in fusion growing quickly, the new agreement is significant because it provides a legal mechanism that covers any cooperative activity in fusion and a forum in which management issues can be aired regularly and resolved.

The agreement is virtually identical to the agreement the United States negotiated with Japan in 1979 and

similar to other bilateral agreements. The bilateral agreements generally contain provisions concerning activities covered, management, dissemination of information and use of proprietary information, patents and copyrights, and so on. Probably the most significant aspect of the agreement, according to Michael Roberts, director for international programs in fusion energy at DOE, is the provision for a joint coordinating committee that is to meet annually.

Roberts anticipates that US researchers will work under the agreement at facilities such as the Joint European Torus at Culham in the United Kingdom and Tore Supra in Cadarache, France, as well as at Asdex in Garching, West Germany, and Textor at West Germany's Nuclear Research Facility in Jülich. Europeans are to be expected at major US facilities such as the ones at Princeton, Oak Ridge, MIT and Lawrence Livermore National Laboratory.

—WILLIAM SWEET

Programs provide services for scientists with disabilities

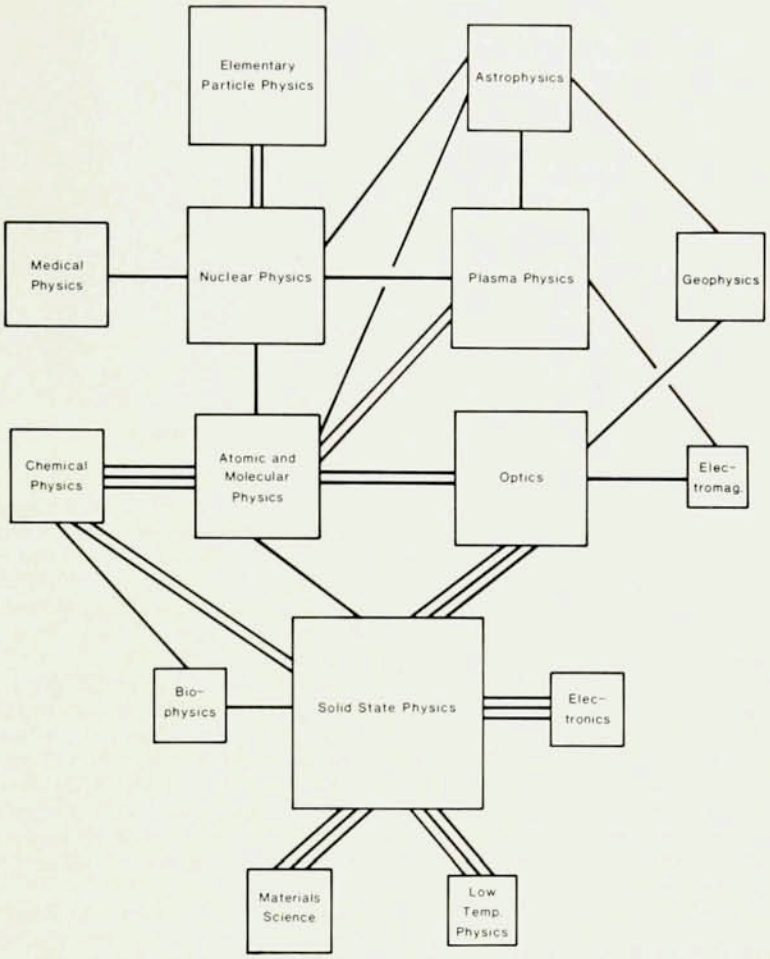
Several government-supported programs provide services for scientists with disabilities.

Scientists and engineers who need advice about how to cope with disabilities may be interested in the *Resource Directory of Scientists and Engineers with Disabilities*. Prepared by the Project on Science, Technology and Disability at the AAAS, the directory was first published in 1978. A second edition, prepared with funding from the NSF, appeared this spring. It contains the names of about 1000 scientists and engineers with disabilities who are willing to provide counsel to other disabled scientists and engineers. The directory is considered especially useful for individuals who have become disabled in mid-career and need to learn new coping skills.

Orders for the directory should be placed with Diane Lifton, Project on Science, Technology and Disability, AAAS, 1333 H Street NW, Washington DC 20005; telephone (202) 326-6678. (The telephone is set up to be compatible with telecommunications devices for the deaf.) Individuals who wish to be included in the database of resource scientists and engineers with disabilities also should contact Lifton.

A more general source of information for disabled individuals in higher education is available from the HEATH Resource Center, a program conducted by the American Council on Education

AIP publishes profile of member society membership



The associations between physics subfields, as members of AIP member societies report them, are depicted in the diagram shown here. The size of each square reflects the number of physicists that identify themselves as working primarily in that subfield. The connections and the numbers of connections between the squares reflect the extent to which physicists in each subfield report that they also work in one or more other subfields.

The diagram is from AIP's fifth annual *Society Membership Profile: The Pattern of Subfield Associations*, which was prepared by Roman Czujko, W. Keith Skelton, Beverly Fearn Porter and Robert Cox of AIP's Education and Employment Statistics Division. The report is based on questionnaires returned by 6700 members of AIP member societies during the summer of 1983. It accordingly does not reflect the membership of the American Geophysical Union, which joined AIP only a year ago. In one's mind's eye, therefore, one should enlarge the box in the upper right-hand corner of the diagram by a large factor.

In contrast to the four annual surveys published by the Education and Employment Statistics Division, which focus on trends in colleges, universities and the job market for graduating physicists, the membership profile provides a cross section of physicists over their entire careers. The major finding of the latest report is that industry continues to attract a growing proportion of AIP's constituents.

Universities employed 35% of AIP society members in 1983, and industry 32%. Of the physicists who earned their PhDs after 1980, more went into industry than academic research or teaching. "Professional self-identification is closely associated with the specific sphere of employment," the report notes. Members who consider themselves physicists and chemists are evenly divided between academe and areas outside of the academic sector, while engineers and computer scientists are heavily based in industry. Astronomers work for universities predominantly.

PhDs in industry earned a median income of $48 000 in 1983, making them the highest-paid AIP society members. But the report comments, "Although academic salaries remained substantially lower than those in the nonacademic employment spheres, the 7.5% increase from 1982 to 1983 was twice the inflation rate." Single copies of the report, AIP publication R-306.1, are available free from the Education and Employment Statistics Division, AIP, 335 East 45th Street, New York NY 10017.