

US military research

Caltech to expel Army think-tank*Pasadena, California*

A US Army think-tank set up at the California Institute of Technology (Caltech) is to be closed at the urging of the faculty. Growing concern over the think-tank, known as the Arroyo Center for Army Analysis, led last week to an emotional two-hour faculty meeting at which Caltech's president, Marvin Goldberger, was criticized for having allowed the centre to be established under what could be viewed as Caltech's auspices. The faculty urged Goldberger to sever ties with the centre "expeditiously and in a responsible fashion at the earliest possible time".

Goldberger said he would honour the faculty's wishes, but that the university would meet its existing commitments to the Army. The centre could thus keep its ties with the university for up to three years.

The centre is the Army's first outside think-tank. Its mandate is to examine future needs of the Army and to carry out objective analyses of policy questions. It was hoped that association with a leading university would give the centre an air of independence and attract good people.

The Army got its foot in Caltech's door by way of an expanding relationship between the Department of Defense and the Jet Propulsion Laboratory (JPL), the Pasadena space research centre operated by Caltech for the National Aeronautics and Space Administration (NASA). Three years ago, NASA slashed its support for JPL, most of whose planetary exploration missions were shelved. The Caltech faculty, saying it wished to preserve JPL's "unique" research teams, with some trepidation authorized JPL to accept up to 30 per cent of its support from the Department of Defense, and the proportion has indeed grown to 12 per cent (roughly \$50 million of its \$425 million budget).

Ironically, NASA's fortunes have rebounded in the past year, and JPL is now busy with a new mission to Venus and several smaller projects. Nonetheless, Goldberger and JPL's director, Lew Allen (a former Air Force chief of staff), have continued to encourage the military to invest in JPL's future. The Arroyo centre was seen as a "goodwill gesture" to the Army — and a direct link with the Army's upper echelon. The centre now has 23 employees, a director and a separate facility at JPL.

The Caltech faculty began to be concerned about the centre last autumn. "We were told everything was exploratory", said one faculty member, "but real commitments were being made." Last week's "Faculty Discussion" — a special session called only when serious matters need airing — concluded that the Army centre does not fit in with Caltech's strengths and expertise. A particular concern was that Caltech could be seen as lending its reputation to the

policy recommendations made by the centre. Although 60 per cent of the Caltech faculty have individually consulted for the military, 95 per cent say it is wrong for the university to enter into an institutional ar-

US foundations**Kettering changes course***Boston, Massachusetts*

A SMALL drama of scientific tradition confronted by unavoidable change is being played out in Ohio. As part of a major shift of focus of its research, the Charles F. Kettering Foundation of Dayton, Ohio, is arranging to hand over the Kettering Research Laboratory of Yellow Springs to the Battelle Memorial Institute, the large non-profit contract research organization in Columbus, Ohio.

The Kettering Laboratory has built its reputation over the past 50 years on basic research in the plant sciences, concentrating on nitrogen fixation and photosynthesis. It has some twenty senior scientists in a staff of eighty. In the past, 60 per cent of its financial support has been provided by the foundation, most recently to the tune of about \$1.6 million a year, while the remainder has been made up of federal grants and some contracts.

The foundation announced the new arrangement in May 1983, and Battelle took over management of the laboratories last September. Assuming that the Internal Revenue Service approves the merger, the deal will be completed in the next few weeks. The Kettering Foundation will provide \$8 million over the next five years to maintain current operations during the laboratory's adjustment to becoming part of Battelle.

Battelle, a public trust whose charter states that it must "benefit mankind", and whose net income is disbursed to charity through the Battelle Foundation, carries out applied contract research for clients in such areas as metallurgy, information sciences and organic chemistry. Battelle is otherwise similar to a profit-making business: it must generate income by selling its work to government and industry.

The expected changes are worrying the laboratory's staff, used to functioning independently in an academic atmosphere and focused primarily on long-term non-applied questions. One leading investigator asserts that he and about half of the senior staff at the laboratory are seriously hunting for other jobs. Under the new regime, members of staff will deal with novel concepts such as "deliverables" and "marketing", anathema to many of them, and will be responsible to Battelle management.

Albert Adelman, associate director of Battelle Columbus, claims that he and his staff are trying to make the changes as easy

arrangement with them.

Goldberger said that there had been a breakdown in communications with the faculty on the issue and that "all the worries should have come up sooner". He said that Caltech and the Army have yet to work out the details of how the centre will be operated in the light of the faculty's recommendations. **Sandra Blakeslee**

as possible for those at the laboratory. Battelle has asked everyone at the laboratory to stay on. It is consulting the staff about major decisions, particularly in the search for a new scientific director, and new people with more experience in business will be phased in gradually.

The question remains of why the Kettering Foundation decided to divest itself of the Kettering Research Laboratory. Kettering is an "operating foundation", meaning that more than 80 per cent of its endowment income is channelled into its own projects. In addition to the laboratory, the foundation has supported social science research, including an international affairs programme, the Institute for Development of Educational Activities and an urban management programme. All three have either been gutted or spun off since 1981, when David Matthews, Secretary of Health, Education and Welfare under President Gerald Ford, became president of the board of trustees.

According to Robert Daley, director of public affairs at the foundation, the decision to transfer the laboratory to Battelle was made by the trustees to "ensure the long-term growth of the laboratory". He claimed that Battelle was chosen because it would be better for the laboratory to be associated with a larger international company with wide experience in research management. He says that the laboratory staff were informed of the decision-making process, but at least two senior researchers insist that the announcement of the merger plan last May was a complete surprise.

Meanwhile, the Kettering Foundation has turned its attention to matters of public policy. It now supports a Domestic Policy Association whose goal is to foster public understanding of federal policies. It is also developing other programmes to educate the public about government, says Daley.

The Kettering Laboratory was founded in the late 1920s by the successful inventor and entrepreneur Charles F. Kettering "to sponsor and carry out scientific research for the benefit of humanity", particularly in plant science and agriculture. Despite the foundation's contention that it is maintaining Kettering's original trust, many staff members feel betrayed by what they see as abandonment by the foundation and its trustees of its essential purpose.

Christopher Earl