

## DEPARTMENT OF DEFENSE RESEARCH

The attackers of DOD research on the Stanford campus have raised three main arguments against this research: First that by accepting DOD research contracts Stanford University lends the prestige of an important university to the military and therefore gives the military a degree of credibility and respectability. Second, that according to the Mansfield Amendment DOD research must necessarily be mission-oriented which means it is inherently war oriented. And thirdly, that through its support of university research that DOD can control the university and control the research which is done here.

Inspection of these arguments show they are not only false, but often contribute toward the opposite effect. Considering them in order it is found: First, that of a military research budget of 7 billion a paltry 352 million goes for university research which could hardly be interpreted as an unscrupulous involvement. In practice this money has often gone to support some of the most vigorous critics of military policy. An example on our own campus is Wolfgang Panofsky who worked for many years on accelerators with support from the Office of Naval Research. Secondly, the Mansfield Amendment has virtually no effect on any of the university research programs primarily because the Amendment is so broad that it can include any type of research. In fact there is no part of human knowledge which doesn't have some possible military application. A good example is Professor Barvick's reading aid for blind people which is funded by the military perhaps with the hope that if any people chose to read books at night. Despite what the radicals are telling on the Mansfield Amendment turn out Juan 30th and cranes are it will not be revealed.

Thirdly the DOD does not and indeed by its very nature could find it enormously difficult even to attempt to control the work a researcher does, let alone any other aspect of the university. In fact researchers are often attracted to DOD funding because in practice many of its agencies are characteristically very flexible and unrestrictive in their funding policies. Because of the many funding agencies in the DOD a researcher has a broad spectrum of agencies to appeal to for support of the research he wants to do. Also, the way research support is generally determined is that a proposal is considered for its scientific merits by an independent group of scientists who are prominent in the field that the proposal concerns, and the funding is awarded or not on the judgement of this group.

The reason the military supports university research is because of the belief that a technologically strong nation is a militarily strong nation. The military produces the weapons systems it wants in its own private laboratories where 65% of the military research budget is spent. As was discovered by the Air Force in "Operation Mindsight", ideas are converted into military systems in about five years when the work is done in military laboratories. The results of university research which are applicable to military systems the same study found to be minuscule (less than 1% of Air Force supported application came from universities) but this with a time lag of over 20 years from the evolution of the idea to the weapon. It is clear then that DOD research money spent in the university, where the research is open and available for all people in all nations of the world, contributes far more to the benefit of humanity and far less to the development of weapons than DOD money spent any other way. Taking basic research away from the universities not only frees more DOD money for the construction of battleships and bombs but it reduces significantly the pursuit of basic knowledge and the development of educated people upon which the progress in any civilization is founded.