March 28, 1969

TO: Members of Concerned Citizens

FROM: The S.R.I. Coalition

Prior to four years ago, it was not customary for people living in the Stanford/Palo Alto region to question the kind of products that this region is producing or the social benefits or harm of these products. No one questioned the development and production of weapons used in World War II and the Korean War. It was only with the Vietnam War that many Americans began to doubt the government's judgment in the use of public resources--men, academic facilities, and tax revenues.

During anti-war protests in 1965-1966, people belonging to the Stanford Committee for Peace in Vietnam did extensive research on the role of West Coast Industries in the Vietnam War. They found that the men who direct the major defense industries and serve on government advisory boards are the same men who are legally entrusted to run Stanford University and its affiliates. They found many professors doing classified research in chemical and biological warfare (CBW), counterinsurgency, and Cold War nuclear proliferation.

The political principle expressed by radicals four years ago has become increasingly accepted by the students and faculty at the University. There is a growing sense that we are responsible to challenge the inhuman practices of our community. The right to life and self-determination of the Vietnamese (or Thai) people is greater than the individual's right to do anything he wishes in the academic or industrial institutions of the area. The social institutions of America which cause suffering must be changed, no matter how sacred and innocent they appear to be..

Though more people understand and sympathize with the radical position now, their actions to date have not been effective enough to stop one war contract, one bomb's production, one new weapon research/development process. Stanford, The Stanford Research Institute, and local industrial firms continue to provide research and production necessary to sustain the war effort in Vietnam and the proliferation of CBW and nuclear weapons which threaten the future peace and stability of the world.

People at Stanford are beginning to struggle against the present war in Vietnam and the possibility of future wars through a campaign to end research in CBW, counterinsurgency, and nuclear proliferation (the Sentinel AMB system) at Stanford and related institutions--the Stanford Research Institute (SRI) and the Stanford Industrial Park. It is essential that this struggle not be limited to Stanford. There is an increasing recognition that Stanford is merely a part of a regional complex of much broader scope and much deeper implications. The entire economy of the Mid-peninsula area is extremely dependent on defense-oriented industries. 60% of all manufacturing wage and salary workers in Santa Clara County alone are employed in the aerospace industry--70,000 people. In the last two years there has been a 40% increase in jobs in the aerospace industry, in contrast to the 5% loss in the number of jobs for the two previous years--before the escalation in Vietnam.

The growth rate of Santa Clara County (which far exceeds that of the state as a whole and other Bay Area counties) reflects a most fundamental economic development during the post World War II period, namely the mushrooming growth of the defense/space complex. Santa Clara County experienced its most rapid growth in the missile/electronics, defense-oriented sector. For example, 40,000 new manufacturing jobs were added in Santa Clara County between 1957 and 1963; as many as 36,000 of these jobs were directly involved in providing goods and services for the defense/space needs of the nation.

Another important characteristic of the Mid-peninsula industrial economy is the emphasis on research and development (R & D). Over 10% of the total number of Department of Defense contracts in R & D are conducted in the area between South San Francisco and San Jose. A primary factor in explaining this emphasis on the "brains" end of the defense/industrial complex is the existence of Stanford University and the policy of the Stanford power structure in encouraging R & D in the area. Many aerospace and electronics firms are Stanford "spin-offs"; ie. they were founded by Stanford people or for the purpose of producing products developed at Stanford/.

Granger Associates, for example, a resident of the Stanford Industrial Park, was founded in 1956 to produce airplane antenna developed at SRI. Both William Hewlett and David Packard of Hewlett-Packard Co. and Dean Watkins of Watkins-Johnson Co. began their careers at Stanford. The Chairman of the Board and President of Metronics Associates, Inc., Dr. William Perkins, is formerly of the Stanford Physical Science Department.

Local industries which require extensive research benefit from the close proximity of a major technologically-oriented university. The university faculty provides a panel of consulting experts available to help local industry with its specialized problems, on financial terms that make such assistance practical even for a small company. Graduate students constitute a potential source of highly skilled labor, which gives local industry an important edge in technical competence. A further factor of great significance is the performance of basic research at Stanford; local firms have access to the results of basic investigation which can then be applied in manufacturing production for company profit. SRI is a further source of qualified research. Many local firms are associates of SRI or have directors which sit simultaneously on the SRI board; researchers at SRI perform many contracts and subcontracts for local industry.

The problem with this regional complex is two-fold. The most obvious implication is the actual result of the work of the complex: more sophisticated counter-insurgency techniques, stockpiling and use of CBW agents, nuclear proliferation with decreasing chances for world peace. The other side of the problem lies in the dangerous implications of economic dependence on defense spending. Santa Clara County's economy is healthy at present, and growing. But what would happen to the local economy if world peace became a reality and massive cutbacks in defense spending ensued? What would be the effect of such an eventuality on a firm like Lockheed, employer of 20,000 people at the Sunnyvale plant alone, which does 88% of its work for the Department of Defense?

Post-war R & D and increased defense spending has allowed this area to sustain a high rate of growth and prosperity. The effect is somewhat the same as the effect of massive industrial mobilization for World War II which pulled the U.S. economy out of a severe depression. After World War II recessions were unavoidable due to the necessity of redistributing federal spending and de-militarizing industry; major depression was avoided by a variety of factors (maintenance of a large armed forces, increased demand for consumer goods after wartime rationing, large foreign aid and European reconstruction budgets, and the Korean War). These factors cannot be counted on in the eventuality of an end to the war in Vietnam and the Cold War. If we wish to work for peace and at the same time maintain economic prosperity in this area, the process of de-militarization of industry must be a gradual process. It must begin now--for the more heavily dependent on defense spending the area's economy becomes, the stronger is the deterrent to seeking an end to war and international hostilities.

We at Stanford are focusing our energies on the Stanford Research Institute as a first step toward the transformation of local educational and industrial facilities into peacetime production. SRI is both an important part of the regional complex and a major contributor to the war and to the threat of possible future wars. Scientists at SRI have for a number of years been involved in CBW and counterinsurgency research.

As early as 1957, SRI undertook a counterinsurgency study contracted by McDonnell Aircraft Corp entitled "Environmental Conditions in Selected Areas of Potential Limited Warfare," which reviewed the "basic . . . considerations ... which would affect the conduct of small wars in various peripheral areas of Asia." It predicted that the U.S. would be inclined to "counter aggression" wherever it occurs, although "for indigenous participants, limited warfare is likely to appear as civil war." Dealing with "minor aggression and overt Communist intervention ... within or without the framework of the United Nations ... may be the most serious strategic problem facing the United States for some time." The study foresaw "the development

of instantly ready, mobile task forces, characterized by very great fire power in relation to manpower commitment," and dependable "off-the-road surface vehicles, and ... radically new aircraft and theater air transport systems."

Subsequently SRI has since 1963 accepted $3 million in contracts for the Army's Electronic Materials Agency which are concerned with "mapping, surveillance, and reconnaissance systems." More work performed for this agency is designed "toward the improvement" of "jungle" communications.

Lloyd Smith, Vice-President of SRI's Physical Sciences Division, disclosed that the Institute is presently "designing electronic equipment for intrusion detection in Vietnam," ie. perfecting plans for an electronic Maginot Line in the DMZ to retard infiltration from the north. SRI researchers have also studied the design and application of aerosols for the dissemination of chemical and biological materials, which has contributed to the use of defoliants and herbicides in the Vietnam "anti-crop" program. CS riot control gas, which has been used along with CN and DM gases to flush Vietnamese out of underground shelters, has also been studied at SRI. The well-known "strategic hamlet" plan for South Vietnamese civilians is credited to Eugene Staley, an SRI senior economist and Stanford professor.

While research of this nature was being conducted locally, research geared to specific countries was being performed in SRI's foreign offices. SRI presently has 43 permanent staff members working at the Thai-U.S. Military Research and Development Center in Bangkok. SRI's work includes testing devices which "can literally sniff an enemy's presence by the very odors of his body, food, or clothing," writing ethnographies of "unstable" areas, and analyzing military communication requirements to repress "medium-level insurgency in the northeast." They have also been testing a magnometer developed by Varian Associates (a resident of the Stanford Industrial Park) as a "method of detecting quantities of iron of a size comparable to insurgent weapons."

SRI has also done instrumental research for Project AGILE, a world-wide counter-insurgency program initiated by the Advanced Research Projects Agency during the Kennedy Administration. A particular study undertaken by SRI researchers in 1966 deals with the "advantages and disadvantages of providing U.S. operation assistance to the armed forces of Honduras engaged in counterinsurgency operations ... which would enable the U.S. to influence favorably the outcome of such activities." A similar project was started in Peru by Robert Davenport of SRI.

Local counterinsurgency work is not performed solely at SRI. Scientists at firms in the Stanford Industrial Park and the Stanford Applied Electronics Laboratory are contributing, in particular, to the manufacture of reconnaissance and surveillance systems for military aircraft in use in Vietnam. Students at SRI and Stanford have also been involved in war research. Professor Oswald Villard, director of both the Stanford Radiosciences Laboratory and two defense-oriented electronics firms in the Industrial Park, stated in a 1964 letter to then president Wallace Wallace Sterling that in the $5 million worth of Defense Department contracts he had handled for over-the-horizon radar, "the scientific work has virtually all been carried out by students."

CBW work has also been conducted at the Stanford Research Institute. From 1959 to 1961, two scientists at Stanford worked to "improve the knowledge of the effects of meteorological conditions on the behavior of aerosols and particulates." In 1965 the Army signed a two-year contract with the Stanford Research Institute for a secret project which "was directed to the use of a rocket motor for dissemination of chemical agents using the energy from a solid rocket motor exhaust for dispersion . . . Heat and turbulence of the exhaust serve to break up and distribute the agent over a very wide area. Demonstrations of the devices were made." (Seymour Hersh, Chemical and Biological Warfare). Hersh states further that this kind of research indicates that many of the more traditional delivery problems that once plagued CBW researchers have been solved. Simply getting gases to go where they are intended and in the right concentration is no longer a major obstacle to the employment of lethal, mutilating, and decapacitating agents. The significance of this

research can be observed in the fact that five of the seven chemical agents currently listed in the Army field manual are disseminated as aerosols, while the other two are "airborne." Stanford research, then, helped to perfect the feasibility of the use of these aerosol agents.

Meanwhile, scientists at SRI have been learning how to make the aerosols. In 1959 two SRI researchers were involved in the Chemical Corps program, particularly to obtain "fundamental information on the formation of encapsulated aerosols for possible application to the solution of the problems of the dissemination of chemical materials." That work led, through similar contracts in 1960/61, to a three-year contract in 1963 "for investigations of incapacitating chemical materials" ($1.1 million), and in 1964 to a still-continuing contract for "the dissemination of chemical solid and liquid materials" ($2.5 million). At present SRI has $404,000 in chemical warfare contracts, with two new contract proposals valued at $96,000 pending.

As an added note Hersh cites the fact that "Some members of SRI's Board of Directors /are/ men who help to direct such defense-oriented industries as General Dynamics Co., Northrup Corp., Douglas Aircraft Corp., McDonnell Aircraft Corp., and the Food Machinery and Chemical Corp. Similarly, all of these firms have many ties with the nation's CBW program."

The deployment of the Sentinel ABM system, strongly advocated by Asst. Secty. of Defense David Packard (former Stanford trustee and President of Hewlett-Packard Co.), will be possible in part because of the work of SRI researchers. SRI's programs in ballistic missile defense date back to the mid-1950's. In 1961 R. Blum of the Operations Research Division performed a study on measurement of effectiveness for a barrier type of surface-to-air defense system. More recent work has included "discrimination studies" (ie. determining targets), feasibility studies for deployment of ballistic missile defense systems, work in electronic countermeasures (eg. radar jamming) for the U.S. Air Force and studies in fusing, arming, testing, and evaluating penetration aides, and radar research applicable to missile detection (facilitated by the over-the-horizon radar studies conducted at Stanford University).

The ABM system, if deployed, will undoubtedly contribute to defense production in the Mid-peninsula area. Lockheed, Varian, and Sylvania are local firms which have already been assured of contracts related to the ABM. Other firms in the area are likely recipients. The ABM system, a product of research at Stanford and SRI, will influence the future economic development of this area; it will increase the dangerous economic dependence on defense spending. Future research at SRI may have similar effects on local economic development, as well as long-term influence on major U.S. foreign policy decisions. The research institute, as an integral part of the regional defense/industrial complex, affects all of us--both as opponents to the war and as residents of the Mid-peninsula. The SRI issue, then, is not a Stanford issue. It is, and should be, a concern of the entire Mid-peninsula community.

The SRI Coalition is a group of Stanford students and faculty and community organizations which recognizes the dangerous implications of defense-related work conducted at the Stanford Research Institute and the specific evils of research in CBW and counterinsurgency. We consider research of this nature to be antithetical to the stated objective of SRI, to "serve the public interest through performance of research to improve the standard of living and the peace and prosperity of mankind." We further challenge the fact that "there is no institutional policy which provides for rejecting research from legally established public bodies, including the Department of Defense, on the basis of moral judgments concerning the nature of the work or the client's function."

A planning meeting to determine the steps to be taken to end CBW, counterinsurgency, and Cold War defense research at SRI and Stanford will be held at Stanford on Thurs., April 3, 4:00 p.m., at Dinkelspiel Auditorium. PLEASE JOIN US.