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No Change at MIT

from a Special Correspondent

THE past two or three years have seen the divestment by several major American universities of their links with defence-oriented laboratories and there is no sign yet that the disengagement phase is over. Of course, student unrest has been a major factor in forcing the issue in many places. Peace-seeking principals have found it expedient to sever connexions rather than go through the rigmarole of confrontation with students who do not use the same currency, window smashing, office occupying and all the other customary accoutrements of university turmoil at present. Often employees of the defence laboratories, situated miles from the campus, with barely a student in sight and barely any staff members involved in university teaching or research supervision, must have wondered, after being divested, why the links had been so precious in the first place.

Two very large university/laboratory relationships are soon to come up for review. The University of California at Berkeley is beginning to wonder about its nuclear weapons laboratories. It is a matter for some surprise that this relationship has not come up for ferocious debate before-and this at Berkelev of all places. It is claimed with some justification that nuclear weapons are the private property of the University of California-certainly the Los Alamos and Livermore Laboratories are the pacemakers in the field. But awkward questions are beginning to be asked about having professors permanently in New Mexico, laboratories with little student access and projects which might appeal to Regent Reagan but do not quite harmonize with the changing tone of university thinking. An argument put forward in other places-"we want to keep the links so that we can mount intelligent opposition if the military-industrial complex gets outrageous in its claims"-is not so easy to advance here; bombs are bombs and seem to work rather satisfactorily. No fundamental premises are vulnerable.

Not so at MIT. The campus has been chewed up for a long time over the military research being done at the Draper Laboratory (formerly the Instrumentation Laboratory) and Lincoln Laboratory. The Draper Laboratory (on campus) has been using its preeminence in inertial guidance to develop Poseidon missiles for Polaris submarines. It has been doing a lot more besides, of course. That the Apollo missions land so precisely on target is Draper's achievement. Lincoln Laboratory has been pursuing a more broad approach in its scientific defence research. Founded for the development of defensive radar, it plays a major part in ABM signal processing but has branched out into astronomy, seismology, satellite communications, programmed learning and air traffic control.

Both laboratories offer one unique feature that is lacking in the normal university environment—a large

scale inter-disciplinary approach to big problems with almost limitless resources. They were built for the purpose of getting big things done and offer graduate students a rather remarkable opportunity of seeing the way new projects can call on a huge pool of expertise. This is so different from most university laboratories that it would be possible to run courses in laboratory planning and management based on MIT's two special laboratories. And yet the interface between MIT and its charges seems rather unsatisfactory. Lincoln, in particular, could be used much more extensively by MIT to initiate projects, yet its director, Dr Milton Clauser, recently bewailed the fact that faculty members always think that MIT should be involved, at Lincoln, but rarely regard this as a personal challenge. For a laboratory with a professional personnel of many hundreds, the few tens of people with teaching links with MIT is too small a number. The Draper Laboratory, coming under the wing of the Aeronautics and Astronautics Department, fares rather better.

Debate about the future of the laboratories is intense at the moment. The Pounds Panel recommended last summer a more balanced research programme, and did not specifically say anything about severing military connexions or define fields of research which were inappropriate. Howard Johnson, president of MIT, has promised to report back in May on progress in diversification. A standing committee is reviewing laboratory activity. A sobriety and seriousness of approach seems to surround everything, if one excludes the jingoistic patriotism of Dr Draper himself with his irrelevant utterances about the destiny of man through aeons of time and the United States being the best attempt ever at humanity governing itself. This apart, the debate has been at a high level and refreshingly objective in distinguishing between, say, one's personal feelings about ABM and whether a laboratory ought to be doing research into ABM.

A recent attempt to force the faculty to decide on the divestment question has been put on ice. The faculty is clearly in no hurry to make up its mind, and the longer it deliberates the more it may find ways of tapping the enormous pool of scientific and technical know-how for broader work. No one pretends that Draper and Lincoln are going to contribute greatly to "societal" problems so much talked about at present. But they could still do much, and the danger, never mentioned, seems to be this. That if, as many laboratory employees would prefer, they became non-profit corporations working as, say, Stanford Research Institute or the nearby Mitre Corporation, MIT would have lost touch with large laboratory science and technology and its way of thinking. It equally would be leaving the laboratories to a much narrower defenceoriented future. Somehow neither prospect seems appropriate to such a worthy institution.