Finally, Professor Legault maintained that NORAD represented the best political tool with which Canada could defend its interests. We would have more influence and a greater capacity to withstand US pressure from inside the system rather than by trying to argue with the Americans from the "outside."

In the course of the Friday afternoon session on the technology of SDI, John Pike, of the Federation of American Scientists, had considered Canada's role in strategic defence. His remarks and the discussion which they provoked are included in this section of the report.

Mr. Pike listed aspects of the SDI programme which might become of interest to Canada. He warned that many of these programmes were still "in flux," and that decisions concerning actual deployment would not be faced for some time. The most obvious, he said, was the High Endo-atmospheric Defense Interceptor (HEDI) which was designed to intercept re-entry vehicles just as they re-enter the atmosphere. These would be part of the "terminal layer" of defence for protecting cities. Under current SDIO planning, these interceptors would have non-nuclear, high-explosive shrapnel warheads. But if the Soviet Union deployed manoeuvring re-entry vehicles capable of evading interception, the HEDI would require an "enhanced radiation" or "neutron" warhead to ensure a kill. Pike reminded the audience that in the past such terminal defence interceptors had been equipped with nuclear warheads.

Even if Canada decided not to deploy these nuclear-tipped interceptors around Canadian cities, there were other SDI components which, according to Pike, the United States would want to deploy in or near Canadian territory. These included: aircraft for tracking re-entry vehicles, ground-based lasers, and "pop-up" X-ray lasers. [For a fuller description of SDI components which might be deployed in Canada, see Appendix II.]

In addition to these interceptors, said Pike, new sensor technologies were being developed under SDI, which could in the future be used as space-based air defence sensors providing an increased capability over present early warning technology. If Canada accepted an increasingly active role in air defence against bombers and cruise missiles, these new sensors might be of interest to Canada. In this area of space-based sensors an overlap or ambiguity would emerge between systems used for ballistic missile defence and those used for early warning and conventional air defence. This could lead to political problems, as it would be