

*Question No. 3. On the matter of independent funds for Government laboratory directors, we note that the Armed Services Procurement Regulations in Section 15, part 205, provides for reimbursement of a contractor's independent research and development effort as a charge to Government-paid overhead. How does this approach compare with DoD's system for providing an allowance for independent research funds to selected DoD laboratory directors? Does the over-all percentage differ?*

Answer. Independent research and development (IR&D) by definition is "that research and development which is not sponsored by a contract, grant or other arrangement". It corresponds closely to the research and development that all companies must conduct in order to improve their product lines and thereby remain competitive. Accordingly, it has been regarded as a necessary cost of doing business. At least four distinct benefits are derived from IR&D:

1. IR&D is used to develop and demonstrate complete prototypes of technically advanced hardware before a formally recognized military requirement exists.

2. IR&D is used to develop the requisite technology for a known forthcoming military requirement.

3. IR&D is used to upgrade the capabilities of important weapon systems.

4. Technology often precedes military requirements; but as a result of broad advances in technology from IR&D, new capabilities become possible and often give birth to military requirements.

IR&D is considered as an overhead cost to Government contracts which is recoverable by the contractor to the extent that is reasonable. Much of the funds spent by industry in this fashion is above the amount considered reasonable as an overhead charge. The difference is paid out of company profits. There is no fixed percentage which is allowed for this purpose. It varies from year to year and from company to company.

The purpose and expectations of the in-house laboratory director funds are very similar to the IR&D concept. In both cases, the intent is to keep technical organizations at the forefront of technology so that the best technically conceived systems and weapons will be achievable in a timely manner. Both are predicated on maintaining a high degree of independence and freedom of action at the performing level.

*Question No. 4. The Subcommittee is aware that many observers of Federal laboratories call for measures to upgrade the quality of their personnel by training, particularly by sending scientists and engineers off to school for mid-career study. Dr. McLean spoke in support of this concept. On the other hand, we have heard that in some laboratories if a director sends a man off for training, the manpower people withdraw the man's position because he is no longer at the laboratory bench or at the drawing board.*

*What experience have you had with this problem in the administration of DoD's laboratories?*

Answer. The educational program of a laboratory must compete with all other functions for its resources. During times of budget reductions and manpower retrenchment, the education and training activities of laboratories are also affected by the over-all environment. By and large, the Defense laboratories have strong programs in work-related educational programs and in continuing education for mid-career study under the Government Employees Training Act.

A recent (March, 1968) survey by the Committee on Federal Laboratories, Federal Council for Science & Technology, indicated a high degree of participation in advanced technical education by DoD laboratories. In certain cases the universities are brought to the site of the laboratories such as at Huntsville, Alabama for the Army Missile Command and NASA, at China Lake, California, for the Naval Weapons Center and at Wright-Patterson AFB, Ohio, for six Air Force laboratories and other technical groups. This provides a broader technical scope at a much lower cost basis.

Unquestionably there have been isolated cases where a manpower space has been withdrawn while an individual has been off for training because of manpower reductions in the organization. However, this is believed to be the exception rather than the rule in the Department of Defense.

We have also run into the problem where the pressure of the laboratory program is such that a Laboratory Director is reluctant to send his better, productive people off for educational purposes. To ease this problem somewhat, the Deputy Secretary of Defense established a "Pool of Spaces and Funds for Long-Term Civilian Training" (in excess of 120 days). This pool, which is still in effect, covers the manpower spaces and funds (tuition, salary and related ex-