

NOTS was able to accomplish this program because of its broad mission, extensive experience in a variety of program areas, and diverse technical skills. It is my belief that a broad charter and work experience utilizing skills from many disciplines are essential keystones to undertaking large systems developments which must be supported by the effort of many agencies.

In addition, some one must have the desire, determination, and skill to establish and maintain control of all the variables involved.

The concept of a single responsible designer for systems as complicated as those of our modern weapons has not been employed frequently in our current military designs. To achieve a simple, integrated design, we should employ the concept of appointing a single master designer for each system, who would execute his responsibilities in a manner similar to that of the master architect of a building. If we are to have a truly integrated design, a single man must understand what he is trying to create, must be responsible for the choices among the infinitude of alternatives available, and must weave the various elements of the design into the integrated system. Like an architect, he must understand the tools of his trade. An outstanding example of such an architect is Adm. Levering Smith in the Polaris program.

In the planning of military equipment, with which I am most familiar, we have for centuries operated under the general objective of developing devices to destroy more effectively the enemy or his tools for making war. During recent years our national R. & D. effort has achieved for us the capability of near total destruction. I believe now that our national goals have shifted a portion of our R. & D. attention to "limited warfare," which in effect is the extension of police methods and weapons against international crime.

The control of crime on a national level and waging conflicts such as the one in Vietnam would seem to have many aspects in common. It is highly probable as your questions suggest, that we will see the use in international settings of the techniques and equipment developed for control of national crime and vice versa.

The Naval Undersea Warfare Center is a relatively new organization, established on July 1, 1967. The functions and programs, however that were brought together to make up this new organization were already well established within the Navy laboratory structure, and will provide the takeoff point for new program developments.

This new organization was part of a general Navy plan to restructure in-house laboratory effort into centers of excellence for improved utilization of laboratory resources. The plan encompassed the development of a number of self-contained organizations, to include enlarged systems integration capabilities, with each center working toward the identification and solution of specific and related military problems.

The Naval Undersea Warfare Center was created from elements of the former Naval Ordnance Test Station and Navy Electronics Laboratory. It is a primary research, development, test, and evaluation activity of the Naval Material Command, and it is responsible to the Chief of Naval Material for the administration of assigned funds, conduct of operations, and the accomplishment of the mission. The mission of the Center is to support the fleet by originating and anal-