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THE APL MISSION: CHALLENGE FOR THE 1980's

In 1968, the Committee on the Applied Physics Laboratory of The Johns Hopkins University Board of Trustees adopted the following mission statement for the Laboratory.

“The general purpose of The Johns Hopkins University can be stated as public service through education, research, and the application of knowledge to human affairs. As part of the University, the Applied Physics Laboratory shares this purpose through the application of advanced science and technology to the enhancement of the security of the United States of America and basic research to which its facilities can make an especially favorable contribution.”

While this may appear to be so general that it offers little guidance in deciding what kinds of activities are appropriate for APL, it was and is a very important statement for two reasons. First, it was a reaffirmation of the University's commitment to the Laboratory's efforts in support of national security during a time when such commitments were unpopular on most university campuses. And second, by its very generality, the statement implies confidence that the Laboratory's work is of national importance and its research and development contributions are significant.

On reflection, moreover, the mission statement is more restrictive than it first appears. I interpret it – and previous Directors have interpreted it – as a charge that limits our activities to those that fulfill an urgent need, that further our knowledge in science, create new technology, and/or apply science and technology to new areas. Not only are we expected to work on important problems, we are expected to produce innovative, effective, efficient, and timely solutions. Now, suddenly, that simple mission statement for APL – which can be read in a few seconds and might easily be dismissed as “motherhood” – becomes a challenge. Although the charter is broad, there is implied a commitment to excellence, both for our programs and for our performance.

It goes without saying that the most important

asset of the Laboratory is a knowledgeable, experienced, and motivated staff. Many things go into making APL the kind of place that has attracted so many capable people, but certainly one of the key elements has been the opportunity to work on challenging assignments in an atmosphere of commitment to excellence. Even more important is the assurance that what we say and do makes a difference, i.e., that our contributions are recognized in the scientific, engineering, and military communities as credible, practical, accurate, and valuable. And we do have that assurance. We have earned the confidence of both military and civilian sponsors in compiling a record of solid achievement over nearly 40 years and we have established an enviable reputation in all of the professional fields in which we have worked.

It also goes without saying that if we are to work on important problems – if we are to produce innovative, effective, efficient, and timely solutions to problems – we can never rest on our laurels and become overly content with our current status. We must constantly be reviewing our activities; we must recognize a commitment to maintain the conditions that have drawn us all together. In this connection it is important to note that the Laboratory's work has evolved from essentially a single task – admittedly large and complex – to several hundred programs, spanning a great many disciplines, for a host of sponsors. Of course our capabilities and areas of expertise have expanded to meet the variety of new challenges, and the diversification has had many benefits. While diversification is usually viewed as good, fragmentation is obviously bad. It is imperative, therefore, that we carefully assess new programs and periodically review ongoing activities to ensure that the high standards set forth in the mission statement are not compromised.

This assessment is one of the tasks of the recently reconstituted Program Review Board. The PRB will begin by defining criteria that can be used to evaluate Laboratory programs, both new and ongoing. Through a number of panels and working groups, it is intended that all of our current programs will be reviewed during the next six to twelve months. I

expect these reviews to provide summary information on current status and problem areas, but the emphasis will be on answering more fundamental questions. Some examples of these questions are:

1. What are the program objectives and who sets them? Do we concur in the objectives? Are they still valid?
2. Is APL's role controlling or subsidiary?
3. If subsidiary, are we in series or parallel with the main effort?
4. What is the APL product?
5. Who will use the APL product? How will it be used?
6. Why is APL uniquely qualified to carry out the program? Would we be missed? By whom?
7. What is the future of the program? Will APL's role change in character, size, or both?
8. What is the mission of the sponsor?
9. Who else is involved in this or similar work?
10. Are we competing/competitive in the field?

This is a particularly opportune time to ask these and similar questions because we are under pressure in many areas to take on additional tasks. Since we are already near our self-imposed personnel ceiling and close to saturation of our facilities, it is urgent that we examine our present situation carefully in order that our traditional ability to respond to – and

to create – new opportunities is not compromised. This review will form the basis for preparation of long-range plans for the Laboratory, and establish a context and perspective to ensure that new or expanding efforts are consistent with both Laboratory and University objectives.

What are the likely results of this effort? My only preconceived notion is that most of our current programs will receive high marks when judged on technical quality, national importance, current relevance, etc. Of those that may be found wanting, I expect most will be programs of value, but may fall short of meeting criteria on appropriateness for APL. In some of these cases we may elect to try to upgrade the APL role in the program; in others we may choose to work toward an orderly extrication of the Laboratory from the program. Clearly, we can never act irresponsibly – but we must make certain that our resources are most effectively employed in accordance with our objectives.

The task of the new Program Review Board is extremely ambitious and there may well be some initial difficulties in devising fair and consistent methods and procedures for conducting the reviews. However, there is no doubt that the need is great and the time is right. The careful conduct of this review effort is a crucial step in planning the nature and scope of the Laboratory's activities for the 1980's.