DEPARTMENT OF THE NAVY



PROGRAM EXECUTIVE OFFICE THEATER SURFACE COMBATANTS 2531 JEFFERSON DAVIS HIGHWAY ARLINGTON VA 22242-5165

Ser TSC/112 8 May 2001

Dr. Richard Roca The Johns Hopkins University Applied Physics Laboratory 11100 Johns Hopkins Road Laurel, MD 20723

Dear Dr. Roca,

I am pleased to provide this introductory letter to the *Technical Digest* devoted primarily to your missile work.

As you know, the Laboratory is approaching its 60th year of service dedicated to the defense of our nation. From this beginning in WW II, a primary focus has been Air Defense. Since that time, the Laboratory has been ever mindful of the threat and through innovation, foresight, science and engineering, has managed to support and counsel my predecessors—and now me and our team of other laboratories and contractors—to stay at the leading edge in all aspects of Air Defense. The formidable threat to the United States posed by the former Soviet Union no longer exists; however, a serious threat to our National Security and to our Allies does exist, and in a more insidious and widespread domain. Many of these nations possess the intrinsic means—or may be able to purchase the means—to design, develop and deploy weapons systems employing Ballistic and Cruise Missiles, which could be used against the United States or our Allies.

Recognizing this threatening world situation, we are in the process of designing and developing effective defensive responses to these National Security threats. The United States Navy has initiated programs using the variants of the Standard Missile-2 Block IVA and Standard Missile-3 variants against endo- and exo-atmospheric targets with Theater-class ranges. In parallel, modifications and additions are being made to the Aegis Weapons Systems to support the Theater Ballistic and Cruise Missile Defense missions as well as research which foreshadows future needs.

Our future programs and plans, however, must be basic, stable, farsighted, innovative and imaginative. For the last 60 years, the Applied Physics Laboratory has provided the needed forward-looking leadership, technical expertise and hands-on problem solving approaches. The contributions of the past, however, are a prologue to the experience, know-how and understanding demanded for the future. Sustaining our National Security for future generations will require the application of an even greater effort than that of the past six decades. We stand at the dawn of the new century in which all the expertise that our nation can muster will be demanded if we are to successfully meet the challenges which the future holds.

I fully expect to see the Laboratory continue to support me, and the missile development team, with the technical leadership necessary to maintain our technological lead for the application of Naval Forces for defense of our National Security. The Applied Physics Laboratory speaks both to history and to the latest developments in missiles. I welcome this issue of the *Technical Digest* devoted to missilery. It is a timely summary now shaping Navy development and planning.

Sincerely,

W. W. COBB, JR.

WW Coll J

Rear Admiral, U.S. Navy

Program Executive Officer
Theater Surface Combatants