

## **Executive Summary**

### **Defense Conversion**

The sudden end of the Cold War created a new world order with the United States the only surviving Superpower. Within the United States, an immediate sense of increased security prevailed resulting in demands for heavy reductions in defense spending. The term "peace dividend" was coined and popularized. Thus was initiated an extraordinary period in this nation's history. The cutting of the defense budget and the defense drawdown which followed resulted in a depressed defense industry, marked by heavy job loss. A commercial economy in recession exacerbated the problem. It is this state of the nation's economy that the current Administration and Congress are committed to improve. It is within this context that the concept of Defense Conversion was promoted as a solution.

The concept had its roots in technology transfer legislation enacted as early as 1980. The most recent enabling legislation is the Defense Conversion, Reinvestment, and Transition Assistance Act of 1992. This legislation, coupled with the highly publicized Defense Conversion related policy position taken by the Administration, made the decision by the Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN(RD&A)) to make Defense Conversion the subject of the 1993 NRAC Summer Study both timely and appropriate.

The Terms of Reference (TOR) used to task the 1993 Summer Study Panel scoped the subject of Defense Conversion to a manageable task. It focused the Panel's attention on the research and development (R&D) aspects of Defense Conversion. It, however, did not define Defense Conversion.

Critical to the conduct of the study was the derivation of a definition for Defense Conversion. Panel agreement was essential, as was consistency with the published intent of the Administration and Congress. Definition derivation was a particularly difficult task due to the highly publicized nature of Defense Conversion and the resulting wide array of perception this publicity created. A Panel consensus definition was ultimately derived and used to drive the rest of the study.

Early in the study, a mission alignment issue was identified. The mission of Defense Conversion, simply stated, is to produce jobs. The mission of the Department of the Navy (DON) is to provide an adequate maritime defense. An obvious lack of mission alignment exists and presents DON with a real dilemma. Resolving this dilemma is essential if the DON is to fully embrace Defense Conversion.

Key to resolving the mission alignment dilemma is a Defense Conversion paradigm shift. The existing paradigm is based on a "technology push" philosophy resulting in a uni-directional technology transfer paradigm (i.e., from defense to commercial markets). A new bi-directional technology transfer paradigm, introduced for the first time in ARPA's Technology Reinvestment Project, can provide the needed mission alignment

breakthrough. The bi-directional paradigm recognizes that while defense technology "spin off" can benefit the commercial economy, commercial "spin on" and collaborative dual use technology development can be directly beneficial to the national defense. Thus, a degree of mission alignment can be achieved paving the way for more enthusiastic DON support of the Administration's Defense Conversion Initiatives. It is precisely this aspect of Defense Conversion, the Panel recommends the DON place its emphasis.

The Panel received extensive briefings from Congressional, Department of Defense (DOD), Federal, university, industry, union, and state and local government sources. Response to the Administration's Defense Conversion initiatives by state and local government, as well as unions, is strong. Also supportive are the non-DOD agencies within the Federal Government. Support from DOD appears to be a real struggle. It, however, is understandable considering the mission alignment issue. The university community was found to be neutral in support, while the defense industry, in general, is a reluctant participant at best. It is within this response environment that the Panel attempted to address the objectives and specific tasking identified in the TOR.

After DON technologies were systematically identified, R&D investment strategies examined, defense industry drawdown strategies reviewed and potential partners/partnerships assessed, the Panel concluded its Summer Study with six primary findings and seven specific recommendations. In essence, the Panel believes DON's mission alignment dilemma can be satisfactorily addressed and the Administration's Defense Conversion policies more aggressively supported. Opportunities to develop a truly beneficial support methodology exist. The primary success limiters are commitment, imagination and persistence. The task will be difficult, but the potential benefits are well worth the effort.