

Tomahawk Fleet Experimentation, Systems Engineering, and Delivering Capability to the Fleet

a . D , a A. G , a D a . B

AB → AC →

The Tactical Tomahawk was delivered to the Fleet in 2004 with new features including network capabilities that allow in-flight communications. To translate the technical to the operational and to realize the Tomahawk's fullest potential, the Johns Hopkins University Applied Physics Laboratory (APL) has assisted the Tomahawk Weapon System Program Office (PMA-280) with using the Tomahawk flight test program and the Fleet experimentation process to demonstrate how the incorporated technology can be used operationally to meet Fleet needs. This process has benefited from the addition of APL technology, such as the Maritime Process Instrumentation System (MPRINS), to help with data analysis. The systems engineering process is the framework used to instantiate these technologies.

The Johns Hopkins University Applied Physics Laboratory (APL), as the Technical Direction Agent (TDA) for the TWS, has been a significant part of the development and maintainability of the Tomahawk missile program since its inception. As a member of the TWS Program Office (PMA-280) Advanced Concepts and Technologies team, APL continues to contribute to the development, innovation, and fielding of new weapon system capabilities. The Advanced Concepts and Technologies team is chartered to investigate opportunities for

processes are applied to the experimentation process,

processes are applied to the experimentation process,

experimentation. The retirement stage can be replaced by the analysis and reporting phase (Fig. 5)

output on an identifiable time line. This output helps the team analyze processes, such as kill chain, that have responsiveness requirements. The final analysis report compares the experiment's results to its overall objec-

