Department of Defense Aircrew Survival Flight Vest

Naval Postgraduate School

Abstract

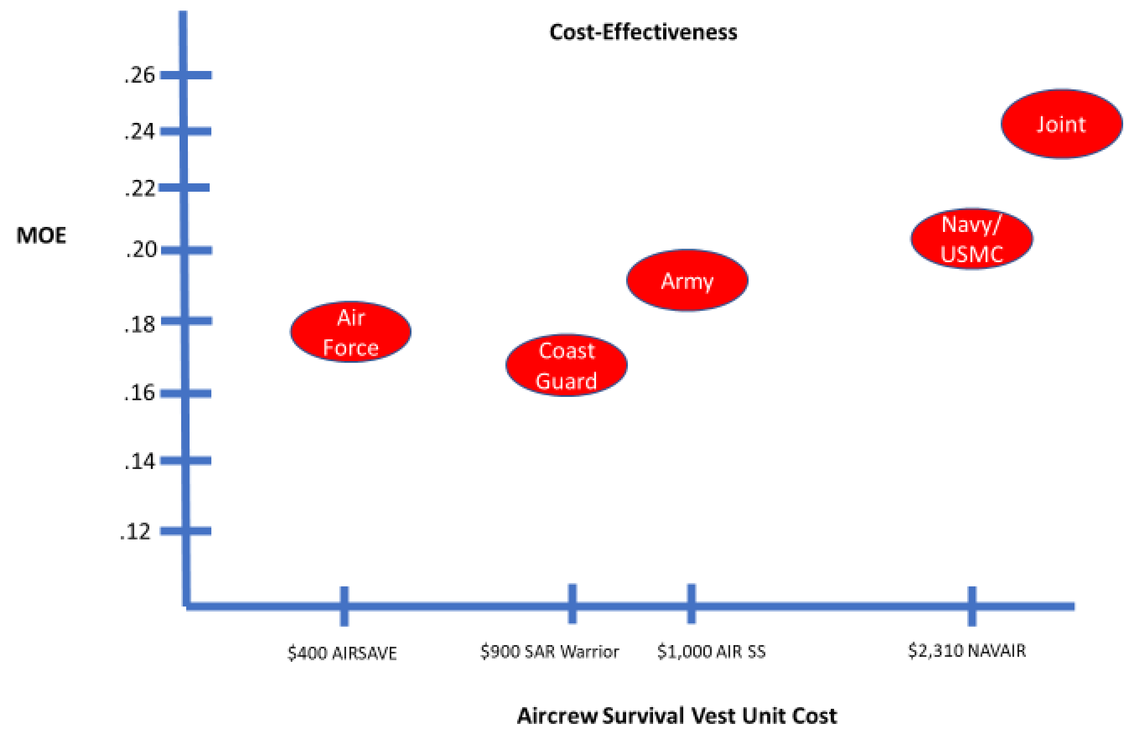
The purpose of this research is to analyze the feasibility of a joint aircrew survival flight vest program to satisfy the performance requirements across the military Services. The Department of Defense has multiple type, model, series aircraft in its inventory to meet the capabilities validated by the Joint Requirements Oversight Council. Each aircraft comes with a variety of Aviation Life Support Systems such as the aircrew survival flight vest. There are a variety of aircrew survival flight vests across the Department of Defense performing similar functions such as: ballistic protection, signaling, and communications, and providing flotation in a maritime environment.

In recent years, Defense Acquisitions Programs have been becoming more joint by increasing commonality to cut costs by reducing redundant programs among the different services. Currently, the various Aircrew Flight Vests which are being used, remain under the control of several program executive offices.

This research examined the feasibility of a joint aircrew survival flight vest by using a combination of the case study method and the cost-effectiveness analysis.

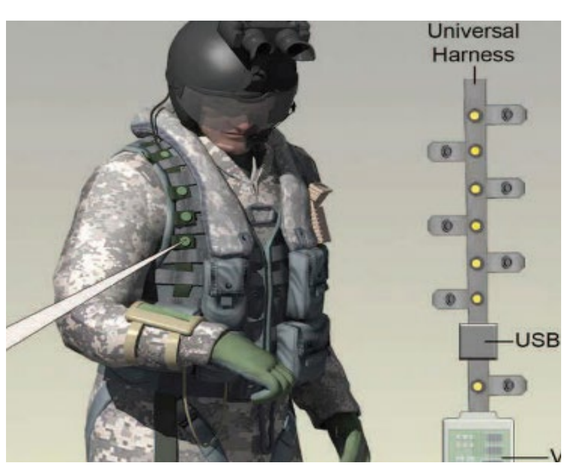
Methods

- Cost Effectiveness Analysis was used to calculate the measure of effectiveness (MOE), against the average unit cost of vest from the services.
- Seven criteria for the analysis; design freedom, small arms and shrapnel protection, light weight, modularity, size fits the majority of aircrew, maritime environment, total life cycle cost, logistical supportability, trainability and contracting.



Results & Their Impact

- The theoretical joint vest had the overall highest MOE and highest unit cost due to all the requirements from all the services.
- A joint vest with a modular design would be the most effective option because Services will have the flexibility to spend money on their specific KPPs.



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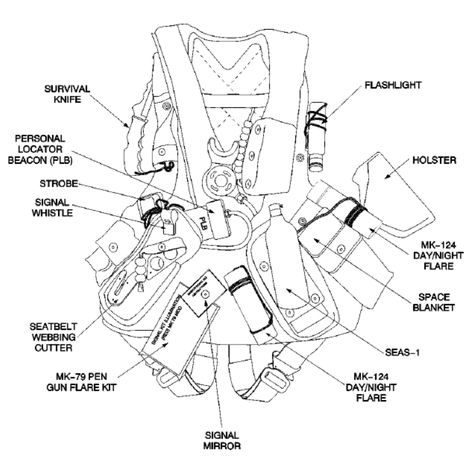

SAR Warrior

AIRSAVE

MV-22 Aircrew wearing an AE Survival vest

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