

Adapting and Improving the Amphibious Combat Vehicle Operational Readiness



NAVAL
POSTGRADUATE
SCHOOL

Abstract

- In 2018 the U.S. Marine Corps selected BAE Systems to manufacture the next generation of armored amphibious vehicles, named the Amphibious Combat Vehicle (ACV). As the Marine Corps transitions the aging fleet of Assault Amphibian Vehicles (AAVs) to ACVs, fleet readiness on the new ACV is significantly lower than expected. The focus of this research was to examine why ACV readiness levels are low and suggest steps that could be taken at the unit, organization, and program management levels to improve the overall readiness of ACVs.



AAV (left) and ACV (right). Source: MCTSSA

Methods

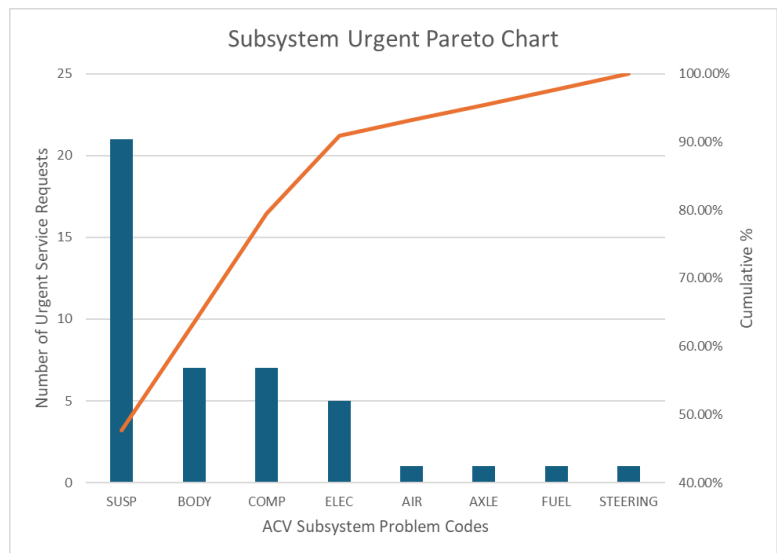
- ACV maintenance service requests and historical maintenance data was collected from Global Combat Support System–Marine Corps (GCSS-MC).
- A root cause analysis of ACV maintenance service requests was conducted by analyzing problem codes, severity, and service request summaries to classify the nature of the requests.
- Tables of Organization and Equipment were analyzed to review command structure, staffing, and equipment levels assigned to Assault Amphibian Battalions.
- The CDD and LCSP were reviewed for insight into program development.



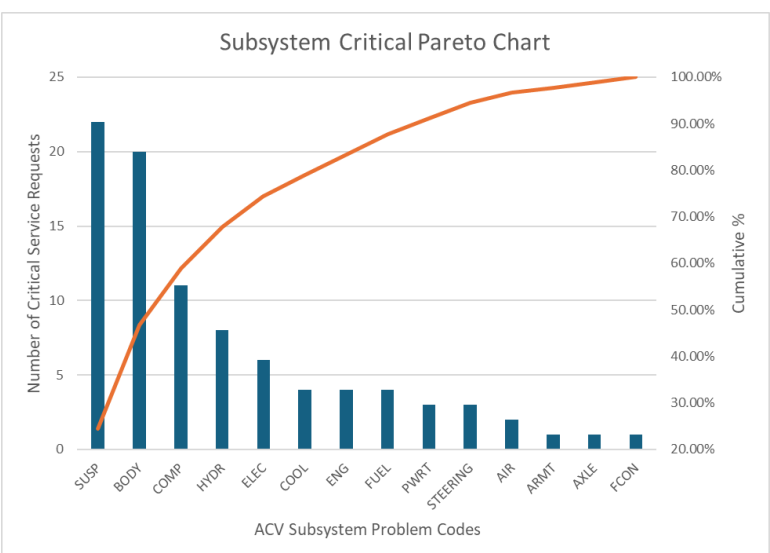
ACV Family of Vehicles.
Source: BAE

Results & Their Impact

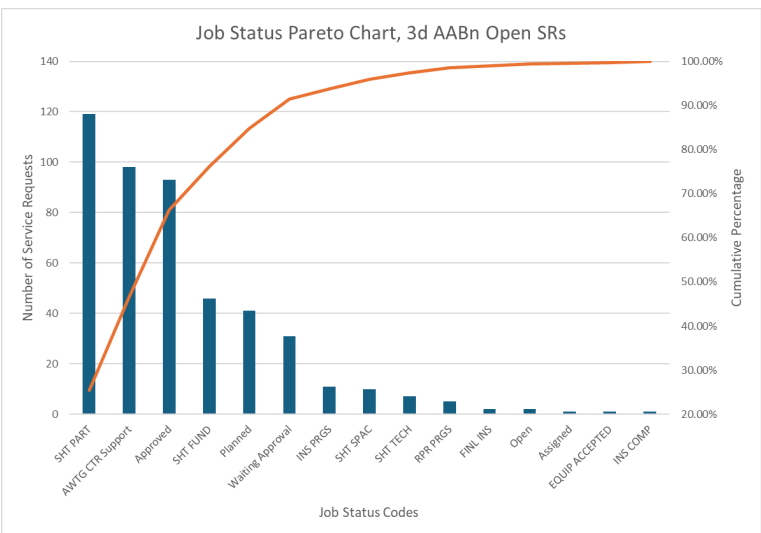
- Low ACV readiness levels stem from a combination of factors including vehicle reliability, supply chain challenges, unit staffing, and training.
- Substantial recurring issues with the ACV suspension system must be addressed.
- Supply chain difficulties permeate the current adoption of the ACV in 3d AABn and will likely continue as other fleet units receive them.
- The adoption of new systems must address emerging challenges of integrating into existing force structures



Pareto Chart of ACV Subsystem Closed SRs Categorized "B-Urgent"



Pareto Chart of ACV Subsystem Closed SRs Categorized "A-Critical"



Pareto Chart of 3d AABn Open SRs by Job Status

