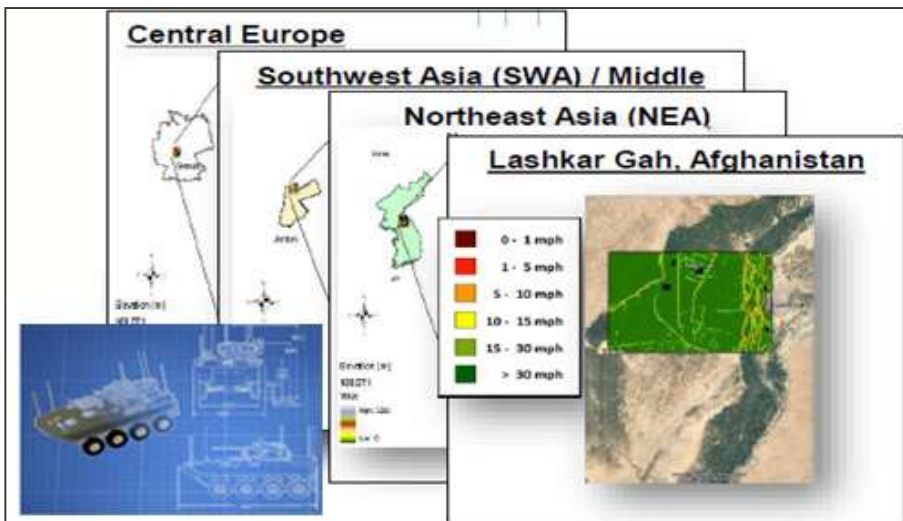


# US MARINE CORPS ARV AoA STUDY

Success Story - Army



ARV 'Heavy Variant' Concept Illustration, and the HPCMP CREATE™-GV MMU GIS Mapping Capability

## PROBLEM

As a member of the US Marine Corps (USMC Working Integrated Product Team (WIPT) engaged in an Analysis of Alternative (AoA), the US Army Combat Capabilities Development Command - Ground Vehicle Systems Center (CCEDC GVSC) conducted analyses in support of two Armored Reconnaissance Vehicle (ARV) variants ('new starts': Light and Heavy) to assess the potential of these lines-of-effort (LOEs) to satisfy a set of validated operational capability needs and requirements.



## SOLUTION

As part of this AoA effort in 2019, the HPCMP CREATE™-GV tools were used by the AFC CCDC Ground Vehicle Systems Center's WIPT members to produce objective analyses of off-road mobility performance for six vehicle configurations, consisting of legacy and proposed ARV variants, across different regions of the world.



## IMPACT

HPCMP CREATE™-GV tools provided decision-quality analyses for mobility assessments within an AoA context. Utilized HPCMP CREATE™-GV tools to predict terrain traversability metrics (e.g., VCI1, %NOGO, and V50 speeds) in various seasonal and weather condition scenarios across four regions as applicable. Results presented in the final report to leadership informed the mobility operational capabilities of the ARV concepts via mobility metric decomposition and map visualization. Output from the HPCMP CREATE™GV tools was critical in providing acquisition decision makers key information necessary to determine the optimum line-of-effort to pursue.