

EXPEDITIONARY FIGHTING VEHICLE

Defense

Project
Management



Mechanical
Engineering



Systems
Engineering



Electrical
Engineering



CAMERA MAST AND GEAR TRAIN FOR EFV FOR THE U.S. MARINE CORPS

APPROACH

- Developed and built two testable camera mast production units
- Tested gear train via static, dynamic, and high-speed shock input
- Assessed toxic airflow analysis and pressure differentials to solve toxic fume problem

RESULTS

- Achieved durability through missile and rocket strike simulations
- Designed for three modes of operation (stowed, sea, and ground) to hold 30 lbs. of equipment five ft. in the air during all vehicle operations
- Prevented toxic fumes from entering the vehicle
- Successfully simulated a five-mile 30 MPH climb without overloading or overtaxing the final drive system (FDS)
- Met both time schedule budget and weight functionality requirements while passing final testing

KEY TOOLS & TECHNOLOGIES

- Sensitivity analysis
- Radiologic measurements
- Live-fire testing
- Root-defects assessments



ALTEN TECHNOLOGY