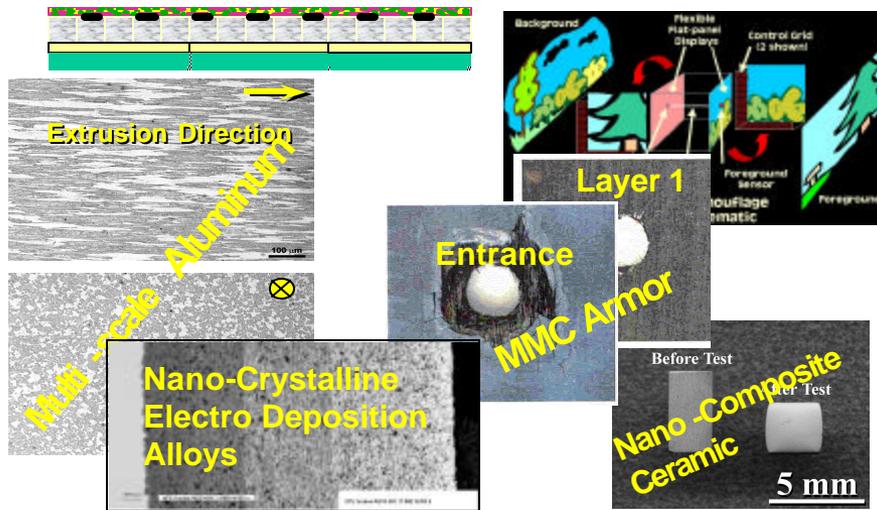


Expeditionary Systems Materials

Integrated Sign./Armor/Struct.



Scope:

Develop and demonstrate lightweight material technologies in the areas of survivability and platform structure for application to existing and future ground combat systems.

Operational Payoff:

Development of lightweight hybrid structural-armor and multi-functional materials enables design of lighter, future ground systems with increased maneuverability and survivability

Technical Approach:

- Materials development - high strength Al 5083; nano-composite ceramic armor, composite matrices, electrodeposited nano-crystalline alloys, etc.
- Materials integration – combining of materials into systems of structure/armor/signature management
- Platform integration – fab and integrate on platforms incl. structure, signature, armor, etc. (multifunctional)

Performers: NSWCCD, GDLS, UDLP, McDermott, Rutgers, Triton, UC Davis, NAWC, Army Research Laboratory

Schedule:

TASKS	FY04	FY05	FY06	FY07
Phase II – Mat'l Integ.	3-4 KTRs			
Phase III – Platform Int.			1-2 KTRs	
Live Fire testing				
Independent Analysis				
Multifunctional Demo				
Transition Technology				

Transition(s): MARCORSYSCOM, Army (PEO GCS)