

AIAD #10969

ORGANIZATION/PROJECT SPONSOR

Organization: Army Research Laboratory

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Location of Sponsoring Directorate or Division: Aberdeen Proving Ground, MD

PROJECT

Title: Development of Advanced Coatings for Military Applications

Description: This program is designed to examine new plasma deposition techniques for silicon oxide coatings, primarily focused on atmospheric plasma methods. Their effectiveness as anti-abrasion coatings, barrier films, and bonding/ adhesive promoters will be examined. The participant will work towards the potential of finding advanced plasma deposited coatings that will withstand the environments typically encountered by military vehicles while exhibiting minimal hazing. These environments include high UV exposure, blowing sand, driven rain, chemical exposure, thermal exposure and interaction with service equipment.

ARL/Army Benefit: Possible military applications of this technology include novel materials for armored vehicle windows, flight deck windows, passenger windows, light covers/lenses, sun-wind-dust goggles and other visibly transparent apertures.

Background Required: Experience in materials science and chemistry is desired but not essential.

Security clearance required: None

Capacity: 1

Duration: 4 weeks

Block Preference: No preference