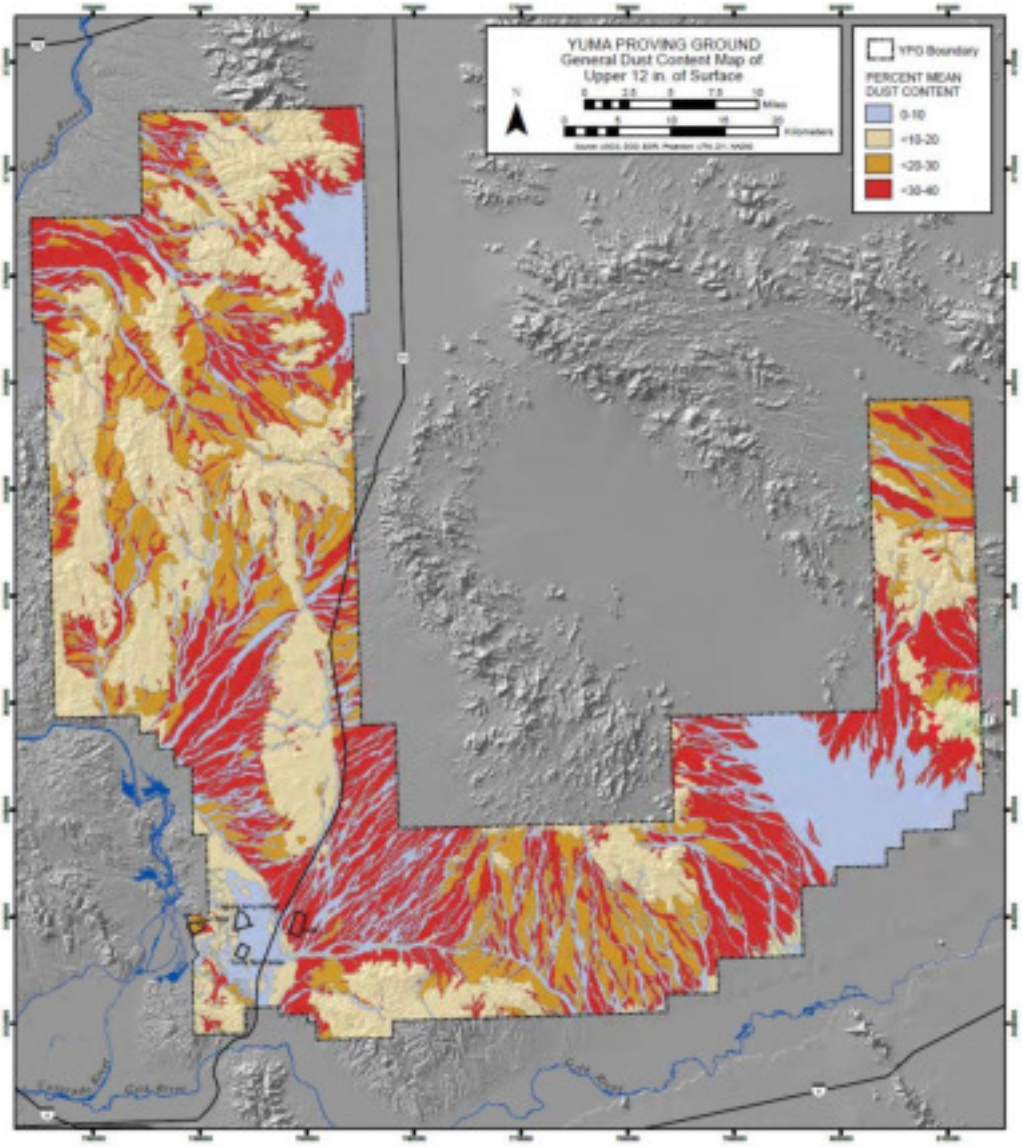
Landforms and Surface Cover of U.S. Army Yuma Proving Ground

The goal was to document and create maps of the geomorphology of Yuma Proving Ground (YPG). This project addressed the need for a comprehensive inventory of the landforms and corresponding surface characteristics of YPG, building on our previous work at the vehicle test courses. The project was conducted at YPG and results were reported in 2009. Our analyses produced 8 different types of maps at a fixed scale of 1:50,000.

Summary of Project Details: Our approach was to produce derivative data layers of geomorphology, sedimentology and physical attributes of the YPG soils in a geographic information system (GIS). To accomplish this, we used data from several satellite platforms. We integrated a digital elevation model (DEM) and existing soils data to assist with feature delineation. The digital data and map layers we produced included hillshade, combined geologic and landform, landform, surface cover, soil, general dust content, desert pavement, and slope. We provided detailed description and discussion on each of the categories within each data layer. We also provided photographs to further illustrate examples of the data in detail.

Management Implications: We provided YPG and Department of Defense with documentation and maps of the geomorphology within YPG. Specifically, we reported the delineation of the constituent landforms and presented information on their geology, landform type, soil cover, degree of desert pavement development, and dust potential. We provided data in graphical format represented by map products to facilitate application and comprehension of material presented, perspective views of individual landforms from oblique aerial photographs, and in tabular format. This project produced usable data and was not intended to generate recommendations.



DRI Desert Research Institute	LANDFORMS & SURFACE COVER OF U.S. ARMY YPG **General Dust Content Map**	DATE: 9-08-2009 **MAP 6**