Volcanic Field Sites for Artemis Testing and Training

The Artemis Program will reestablish human presence on the Moon and lead to a new era of scientific discovery and exploration. Led by the National Aeronautics and Space Administration (NASA), the Artemis Program is a collaboration of space agencies and companies around the world. An integrated effort between various disciplines of science, engineering, and mission operations is currently developing methods, facilities, and analog field locations to train astronauts and test hardware and concepts of operations. These efforts aim to best prepare for the next steps of human exploration on the lunar surface and beyond.

Numerous terrestrial volcanic field sites were evaluated and selected for their unique roles in helping to prepare for the lunar surface mission phases. This effort heavily leveraged the comprehensive academic research conducted at these field sites, as well as the tremendous Apollo heritage. The currently selected volcanic field sites include the San Francisco Volcanic Field in Northern Arizona, the Potrillo Volcanic Field in southern New Mexico, the highlands of Iceland, and the Southwestern Nevada Volcanic Field. Within each of these volcanic field sites numerous specific testing and training locations are being further developed utilizing the analogous terrain and unique features in these regions. Recent Artemis testing and training events have been conducted at a number of these volcanic field sites by both a dedicated Artemis Geology Training Team and a Joint Extra Vehicular Activity (EVA) Testing Team. This presentation will highlight the selected sites as well as the objectives and accomplishments of some of the recent field-testing events and training courses. Additionally, we continually strive to pursue additional sites, locations, data sets, collaborations, and partnerships in this endeavor and welcome knowledge transfer and community input.

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