

DeBeque Canyon Landslide, Colorado

October 9, 2013



DeBeque Canyon Landslide

The DeBeque Canyon Landslide is a major landslide complex in western Colorado that has historically impacted the east-west highway and railway corridor on the Colorado River. These significant reactivations or ground movements have occurred during the past century. The precise date of the first major movement is unknown but occurred in the late 1890s or early 1900s. This slide movement was the largest and reportedly shifted the river channel and damaged railroad facilities on the north bank of the Colorado River.

Source: Colorado Geological Survey

The second noteworthy movement occurred in February 1958 when the roadway was widened for a modern two-lane highway. The widening resulted in further cutting and destabilizing of the landslide toe, with subsequent movements resulting in the heaving of the roadway 23 vertical feet. In April 1968, the final major movement occurred and caused Interstate 70, constructed in the mid-1960s, to heave 14 vertical feet. The highway also shifted 5 to 6 feet laterally toward the river during this event. It was only by the rapid response of the Colorado Department of Transportation (CDOT) that Interstate 70 was not completely closed and the only major east-west interstate corridor in Colorado blocked.



Image Map Created by the USGS Geosciences and Environmental Change Science Center, Denver, CO



Image Information

The ortho image on this map was collected June 20th, 2013 using a Falcon system unmanned aerial vehicle (UAV). The image is composed of 650 overlapping images taken with a Canon sx250, 12 imperial point and shoot camera. The resulting ground sampled distance of this image is approximately 1.79 inches, 4.56 centimeters. The project was a collaboration between the U.S. Geological Survey, Colorado State Geological Survey, the Bureau of Land Management, and the Mesa County Sheriff's office.

