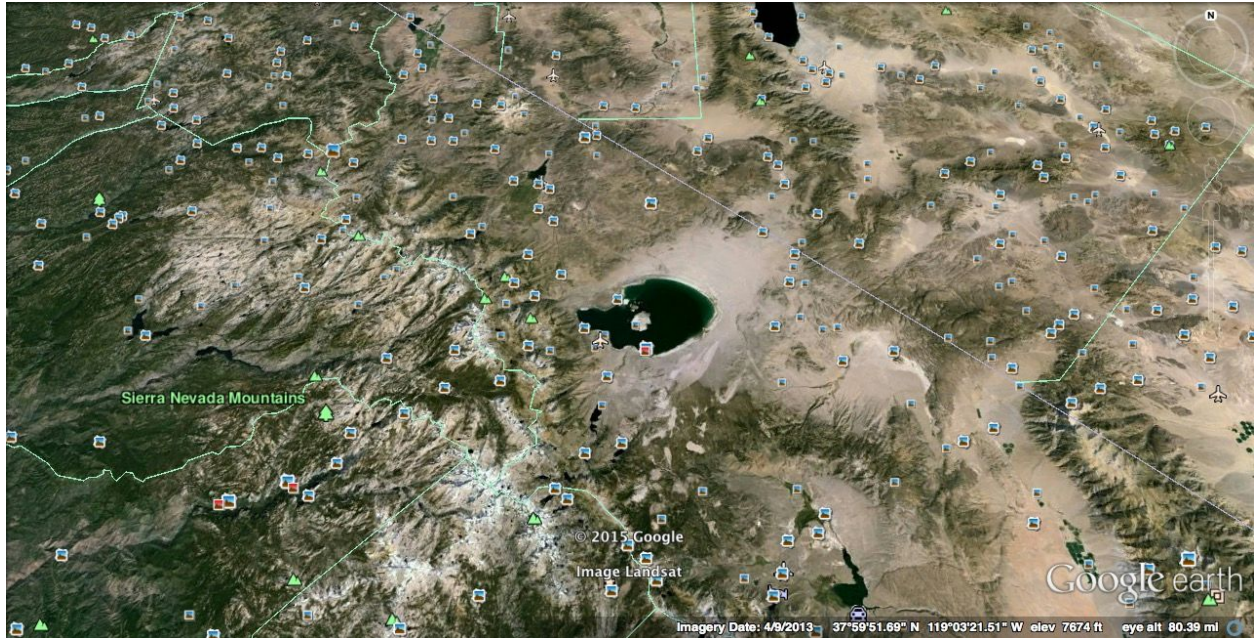
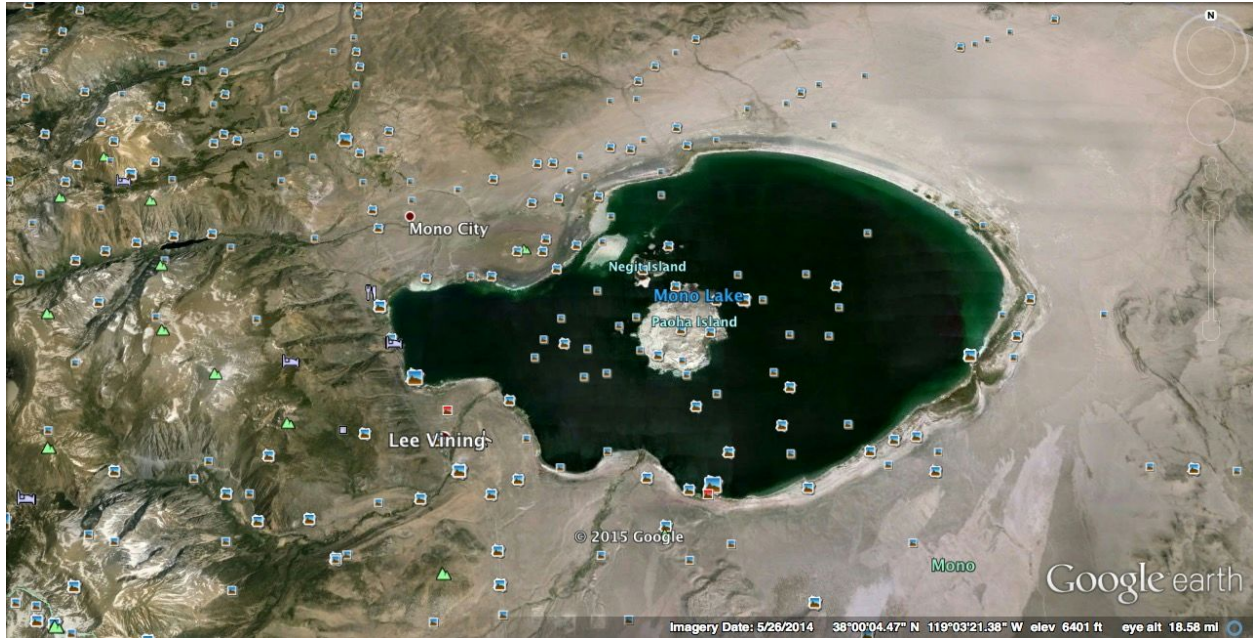


This map is at a global scale and it displays a great part of California and Nevada. The main focus of this map is *Sierra Nevada Mountains*. The mountains were formed by the tectonic process which states that a plate goes over the mantle. Plate tectonics is a theory that suggests that the lithosphere is cut into several plates that are constantly moving around the surface of the earth. With the Sierra Nevada Mountains, the North American plate and the Pacific plate pushed into the mantle and changed the mantles chemistry when they collided. At first they are all very low and small mountains but due to volcanic activity the mountains started to form bigger. During the ice age, the glaciers carved out the mountains and left only metamorphic rock on the tops. On this map you can see that a lot of famous mountains and peaks are located on the mountain range.



This map is at a regional scale and highlights the Sierra Nevada Mountains and gives you a look at *Mono Lake* east of the mountains. According to explore.visitmammoth.com, “pulling apart of the Earth’s crust has created mountain ranges flanked by deep, long valleys. Later volcanism poured thick accumulations of basalt into the valleys, shaping the landscape and creating natural dams that controlled the flow of water.” The basin filled with water “water sourced from melting ice sheets located on the eastern flank of the Sierra Nevada Mountains flowed downslope and was captured by the basin.”



This map is at local scale and gives the viewer a better view of the surroundings of the lake. You can see the volcanic island on Mono Lake called *Paoha Island*. The island is a product of volcanic activity. The island is a very light color due to the lakebed sediments rising above the lake surface. When two plates pull apart the lava erupts to form an undersea ridge. Lava builds up and the sea's surface breaks and forms an island.