PLANET AND SATELLITE GEOLOGY



Prof. Robert Strom leads the research effort in the area of planet and satellite surfaces. These surfaces display features of both internal and external origin which record the planet's history. By studying these features and their temporal relationships it is possible to reconstruct the history of a body, including its thermal evolution, internal dynamics, impact history, and the manner in which the atmosphere has affected the surface. These studies provide a powerful means of determining how these bodies evolved through time and the effects of radically different environments on surface

and subsurface processes. To this end LPL/Planetary Sciences personnel are investigating the surfaces of the Moon, terrestrial planets and outer planet satellites through geologic mapping, volcanological and tectonic studies, impact crater mechanical and statistical analyses, and modeling of geologic processes. Significant recent results include the correlation of the cratering record throughout the inner solar system, and the recognition of a period of global compression on Mercury probably due to the cooling of its massive iron core.