

LUNAR SURFACE FLOWS

ABSTRACT

Lunar surface flows are distinguished by characteristic textures and structures and distinct flow fronts. Patterns of flow abound in both mare and terra materials. In both cases the stratigraphic relationships are usually clear; material of surface flows mantles and subdues pre-existing terrain. Examples are given of probable 1) effusive plateau flows in the maria, 2) fissure flows which mantle both mare and terra materials, 3) viscous flows which form hilly terra units, 4) flows of explosive activity and ash deposits associated with domical structures, 5) extrusive flows associated with calderas, 6) flows and channels of shock-melted materials associated with large impact craters, 7) debris flows and rock glaciers in rough terrain, and 8) flows and channels of fluidized surface materials. Morphological characteristics and moon-wide distribution are significant in deciphering emplacement mechanisms of the various types of lunar surface flows. This in turn is essential to our understanding of the moon's surface and the processes that modify it.

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