



Plate 1. Comparison of ejecta curtain evolution for impact craters formed by nearly identical impactor conditions but with different combinations of atmospheric pressure, ejecta size, and atmospheric density. Each photograph depicts advance of ejecta curtain over a time interval of 5 ms at 2.5, 10, 25, 55, 115, and 235 ms after impact. The sequences represent computer-digitized frames from high frame rate photographic records (400 frames per second). Plate 1 (top) shows the effect of atmospheric pressure in air on impacts into pumice (0.125, 0.25, 0.5, and 1.0 bars from left to right). Plate 1 (middle) shows the same increase in atmospheric pressure in air but for impacts into loose no. 140-200 sand, which contains ejecta about twice as large as pumice. Plate 1 (bottom) shows the effect of atmospheric pressure for impacts into pumice but with helium rather than air. A systematic effect of both atmospheric density and ejecta size can be recognized.