Impact-triggered dust avalanche on Mars

MRO’s Context camera (CTX) acquired the image at lower left on Nov 18, 2007 and the adjacent image on Feb 14, 2010, showing a large new slope streak in the aureole (giant landslide deposits) of Olympus Mons. Slope streaks (dust avalanches) are common on Mars but this one is unusually wide and it began from an unusual extended/fuzzy source area. HiRISE acquired the follow-up image (right) March 31, 2010, revealing a small, pristine impact crater (blue arrow) in the fuzzy source area, which resembles the air-blast patterns seen at many other new (recent year) impact sites. We conclude that an impact event occurred sometime between the dates of the CTX images and triggered a large dust avalanche.