these morphologies is simply that Pr have experienced post-impact modification and infilling, resulting in extremely shallow crater depths and subdued ejecta textures.

(2) Given the diameter ranges of EE and Pr (Fig. 9), and the estimated thickness of the mid-latitude ice-rich deposit during periods of high obliquity (tens to hundreds of meters), these impacts overwhelmed the ice-rich layer, penetrating to the underlying martian silicate regolith. This resulted in the excavation of rock that formed the blocky ejecta necessary to preserve the ice-rich deposits.

(3) The smaller size of Pd, and the significant differences from Pr and EE in topographic profile due to the absence of ejecta, requires that Pd result from a slightly different process. The fact that the pedestals of Pd have the same average thickness as the excess ejecta of EE and Pr (Fig. 9), and form in the same geographic regions (Fig. 10) implies that they result from impacts into the same type of ice-rich target material. However, Pd differ in that they do not penetrate through the icy surface layer, and thus do not generate a rocky silicate-rich ejecta covering. Instead, an indurated, dusty lag deposit appears to protect the underlying ice-rich material.

(4) The ages of EE, Pr, and Pd suggest that ice-rich material has been repeatedly deposited at mid latitudes in both hemispheres throughout the Amazonian. The geographic distribution of EE, Pr, and Pd, with significantly higher concentrations in the northern hemisphere (Fig. 10), suggests that the lowlands may be superposed more frequently by these ice-rich deposits. Stratigraphic, morphologic, and crater counting evidence supports the interpretation that there have been multiple generations of these crater populations. This would require the episodic emplacement of icy paleodeposits, which are likely to have accumulated and sublimated at mid latitudes due to obliquity-driven climate variations.

Acknowledgments

The authors would like to thank the HiRISE, CTX, and HRSC teams, without whom this study could not have been completed, as well as Sarah Stewart and one anonymous reviewer for their constructive comments that improved the quality of the manuscript. The authors are grateful for financial support from NASA Mars Data Analysis Program (MDAP) Grant NNX09A14GG to J.W.H.

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