Change Detection on the Moon: Looking for Blue Flash Events from the 1960s to the Present-Day

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Digital image mosaics at 100m/pixel of the Moon from Lunar Orbiter (1960s), CLEMENTINE (1990s) and LROC (2010s) have all been co-registered manually using affine transformations. Only the LROC mosaic is properly orthorectified so there will be terrain-induced distortions in some places in the other 2 datasets. Using the LROC-WAC DTM generated in Berlin a hill-shading correction was applied to each mosaic using the closest solar angle range available as LROC images are acquired at different solar angles. The "blue flash" database kept at NASA-JSC was then employed to search for new cratering events which could be detected at 100m and the results of this search will be shown. Plans for future data mining of change detection will be described along with the overall strategy to employ crowd-sourced measurements from MoonZoo.