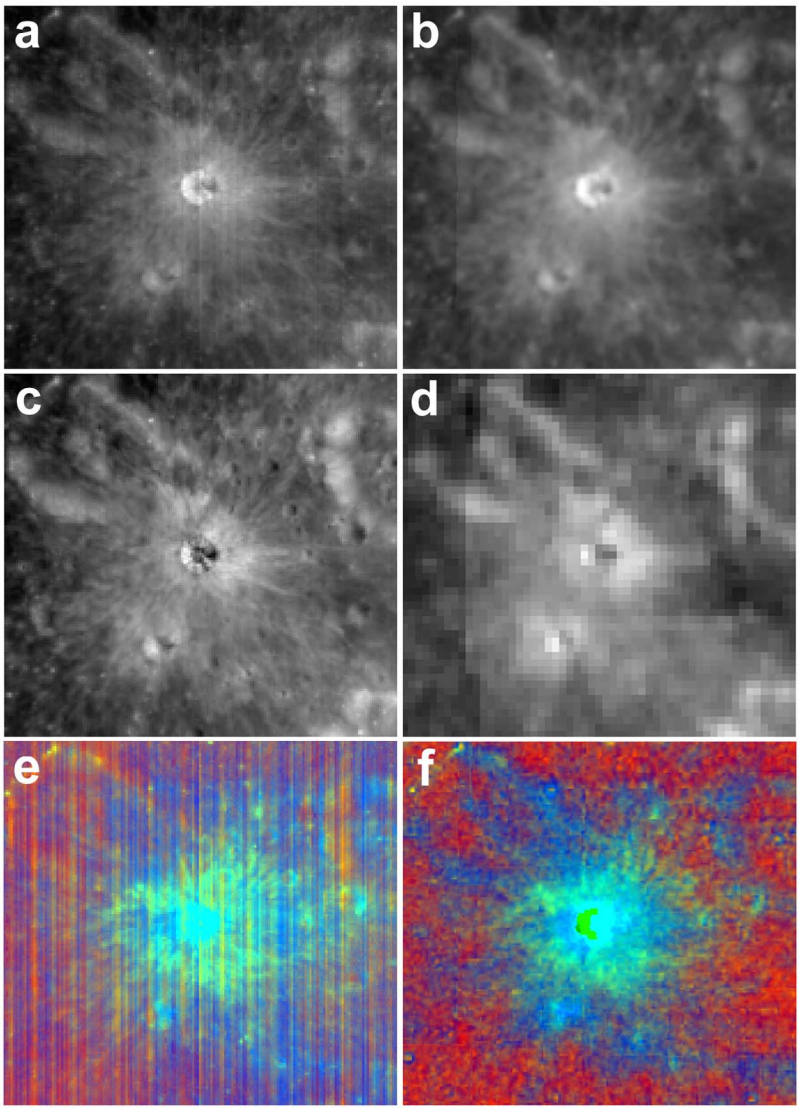


**Figure 2.** Zoom of small crater located at ~3.5°S and 35.5°E (pink ring in Figure 3a). Each frame is 6.8 km across. Selected to compare spatial resolutions of (a) M$^3$ at 750 nm reflectance and (b) Clementine's UV-VIS camera at 750 nm reflectance, (c) M$^3$ at 2020 nm, and (d) Clementine's NIR camera at 2000 nm; (e) M$^3$ band ratio color composite (based on Clementine's UV-VIS channels). Note the east-to-west gradient, which is due to the photometry correction used here not yet being fully adapted. (f) Clementine band ratio color composite. Images created from M$^3$ frame M3G20090106T152345 and Clementine DIM frame ui03s033. Green crescent in center of Figure 2f (western crater wall) is due to saturated pixels (which were thus recorded as null values) in Clementine's 415 nm channel.

[7] Full-resolution Clementine DIMs are available through the U.S. Geological Survey, currently as two data sets: one from Clementine's UV-VIS camera [*Eliason et al.*, 1999] and the other from the NIR camera [*Eliason et al.*, 2003]. Both data sets have been radiometrically corrected [*McEwen et al.*, 1998], geometrically controlled, spatially resampled to 100 m/pixel [*Eliason et al.*, 2003], and photometrically normalized to form uniformly illuminated mosaics of the lunar surface. Coverage of the Moon by Clementine's UV-VIS and NIR cameras are close to 100% and essentially identical. The spatial resolution of the UV-VIS data set ranged from 100 to 200 m/pixel (Figure 2b) and the NIR data set is 500 m/pixel (Figure 2d), but both were spatially resampled to 100 m/pixel so that combined, every pixel contains a continuous and cartographically distinct spectrum.

[8] Early tests of the UV-VIS data being returned from Clementine using the preflight derived calibration quickly demonstrated the need for in-flight calibration observations. Starting at orbit 94, Clementine made systematic observations of Vega and empty space for calibration purposes on almost every orbit. It is from these observations that the Clementine team derived the point spread function for each spectral filter, adjusted instrument gains and offsets, subtracted the dark current, applied the flat field normalization, and converted digital number (DN) to radiance [*Malaret et al.*, 1998; *McEwen et al.*, 1998].