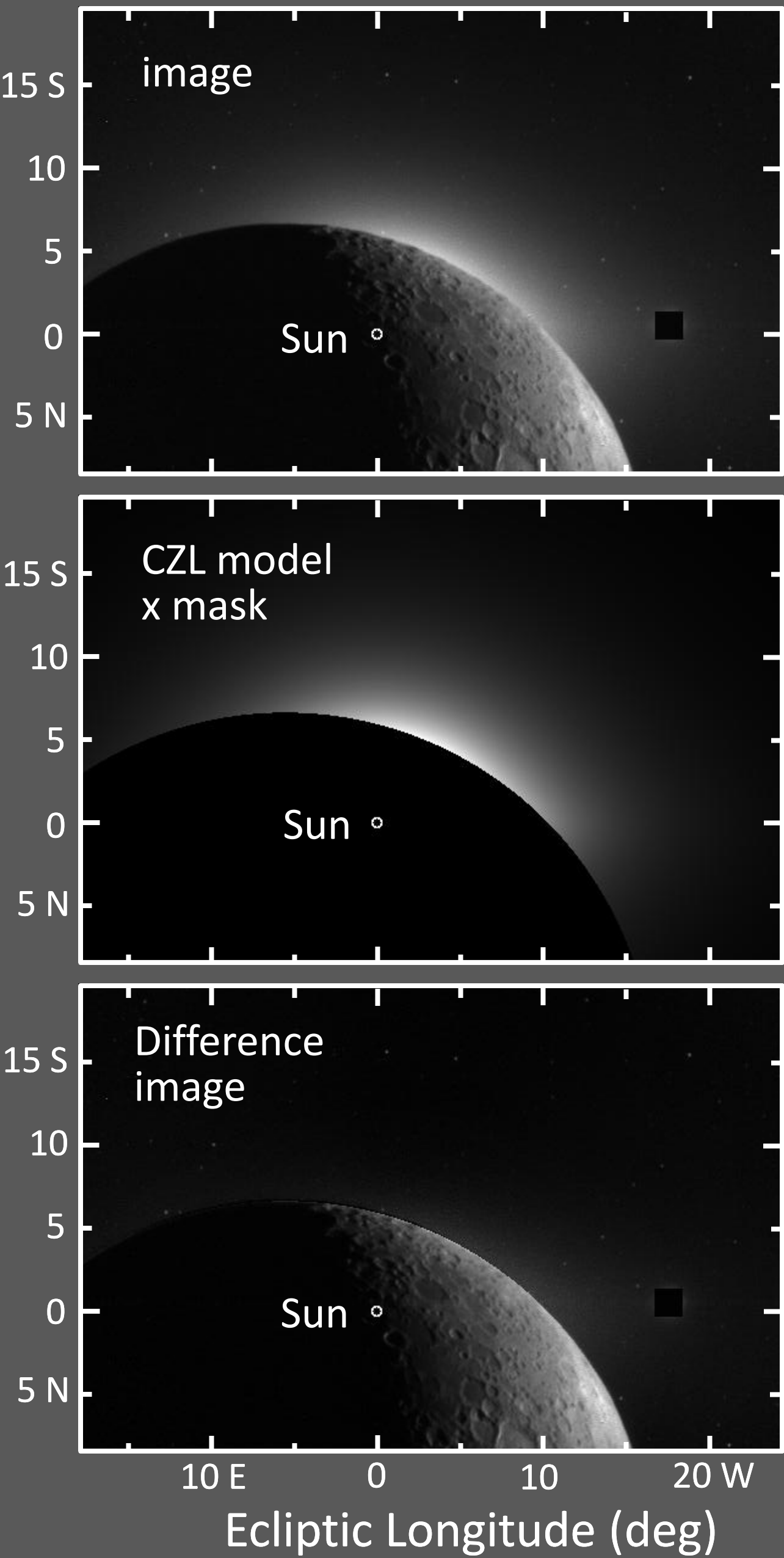


Image Reduction Steps

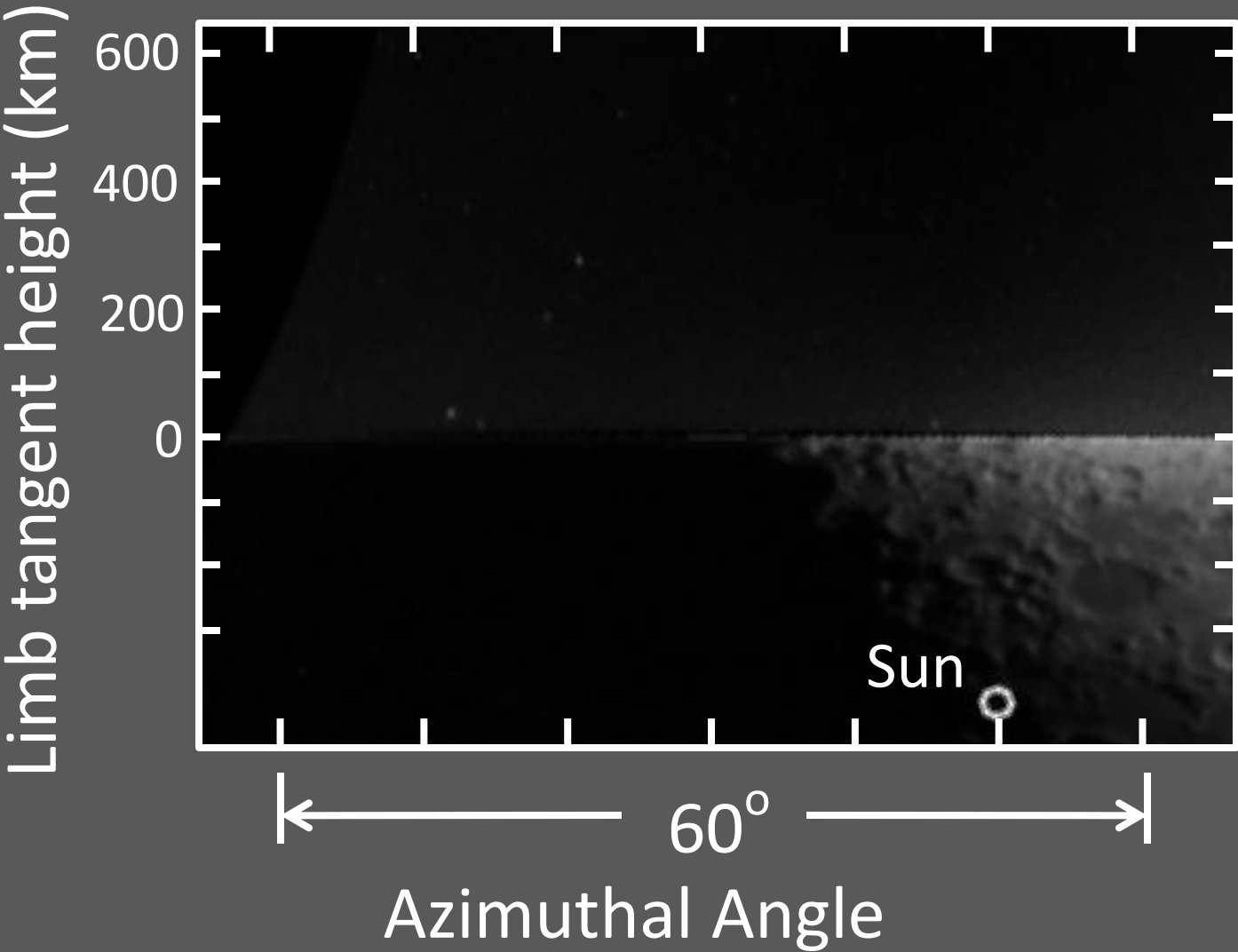
We look for lunar horizon glow by subtracting a CZL model^[3] from each star tracker image., and then remapping the difference image onto a polar (r-theta) grid. The polar remapping facilitates a search for limb correlated, excess brightness.



1) Sample star tracker image from Clementine orbit 193, shown in geocentric ecliptic coordinates. Peak intensity at the sunrise limb (solar elongation angle of $\sim 5.9^\circ$) is $\sim 1.6 \times 10^{-11} B_{\text{sun}}$, where B_{sun} is the mean solar surface brightness.

2) CZL intensity model, derived from the star tracker measurements by Hahn et al.^[3] A circular “zero” mask was created by edge-fitting to the lunar limb, and superimposed on the CZL intensity map.

3) Difference image (image-CZL*mask). Nearly all of the observed brightness in (1) can be attributed to CZL. However, a weak, limb-correlated halo can be observed.



4) Difference image in polar coordinates. Excess light above the limb is $\sim 6 \times 10^{-12} B_{\text{sun}}$ at brightest (far right), although scattered light from Earthshine may contribute. Excess brightness near the left hand side is typically $\sim 2 \times 10^{-12} B_{\text{sun}}$,