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HaloSat Observations of the Vela and Puppis A Supernova Remnants EMILY SILICH, University of Iowa, HALOSAT TEAM — The Vela and Puppis A supernova remnants (SNRs) comprise a large emission region of $\sim 8^{\circ}$ diameter in the soft X-ray sky. The Vela SNR is a nearby (250 pc) middle-aged SNR around 11.4 kyr old that has a large angular size due to its close proximity. The Puppis A SNR is a distant (2.2 kpc) middle-aged SNR between 3.7 and 4.45 kyr old. The HaloSat CubeSat mission provides the first soft X-ray (0.4-7 keV) observation of the entire Vela SNR at moderate spectral resolution. We report on the best-fit spectral models of each SNR and the X-ray luminosities of the Vela and Puppis A SNRs. HaloSat spectra of the Vela SNR are best fit with a two-temperature optically-thin thermal plasma model with a cooler component in collisional ionization equilibrium and a hotter, non-equilibrium component. Puppis A SNR spectra are best fit with a plane-parallel shocked plasma model with a single non-equilibrium component.

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