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## Views of lightning on the dark side of Jupiter by Juno's Stellar Reference Unit

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Juno's Stellar Reference Unit (SRU) star camera is a low light visible imager designed for the engineering function of attitude determination on a spinning spacecraft. The SRU performs an additional role as an in situ high energy particle detector within Jupiter's extreme radiation environment for Juno's Radiation Monitoring Investigation. For the last year Juno's 53-day orbit has presented the opportunity to observe Jupiter from the dark side of the planet and take advantage of the low light sensitivity of the camera to capture images of Jovian lightning. Juno's close flights over Jupiter's cloud tops have enabled optical lightning detection at closer range (tens of thousands of kilometers) and with higher time resolution than achieved by prior missions. This paper presents SRU lightning observations collected through Perijove 18 including discussion of flash energy, duration, flash rate, and collocated storm observations by Juno's Microwave Radiometer and JunoCam. We also discuss results from the search for storms observed optically by the SRU and as lightning whistlers by Juno's Waves instrument.

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