

Light emission issue in HSC CCD #044 (1_10)

T.Terai (Subaru Telescope)

Released on October 11, 2026 HST

- At approximately 0:40 on the night of October 6th, 2026 HST, the corner pixel at (X, Y) = (2144, 1) on one of HSC's CCDs (DET-ID: 044, SDO-ID: 1_10) suddenly began emitting light.

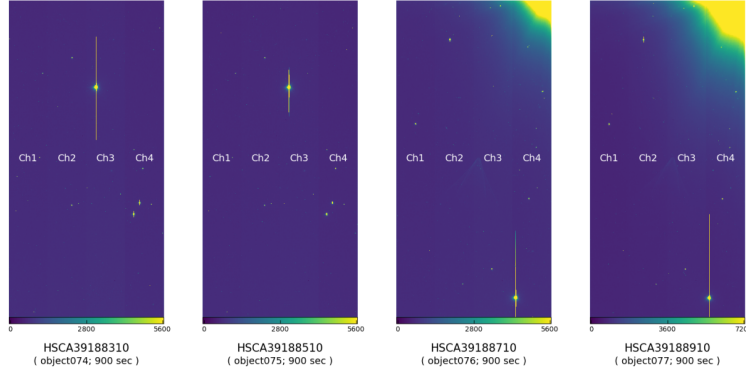


Fig.1: The corner of CCD #044 began emitting light from the exposure of HSCE00391886.

- The intensity of the scattered light near the emitting corner was approximately 100–200 ADU/s.
- The emission persisted stably over multiple nights and showed no indication of decay.

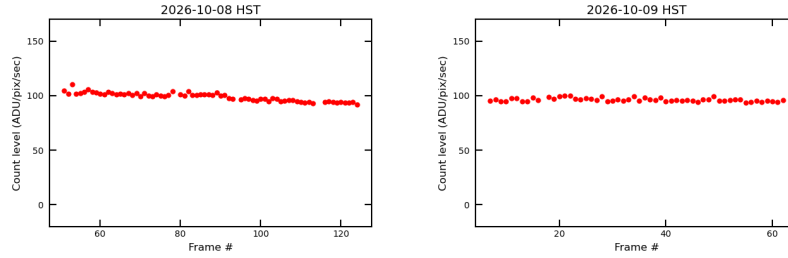


Fig.2: Median count rates in a 10 × 10 pix area at the emitting corner.

- The effect of the stray light extended to neighboring CCD pixels.

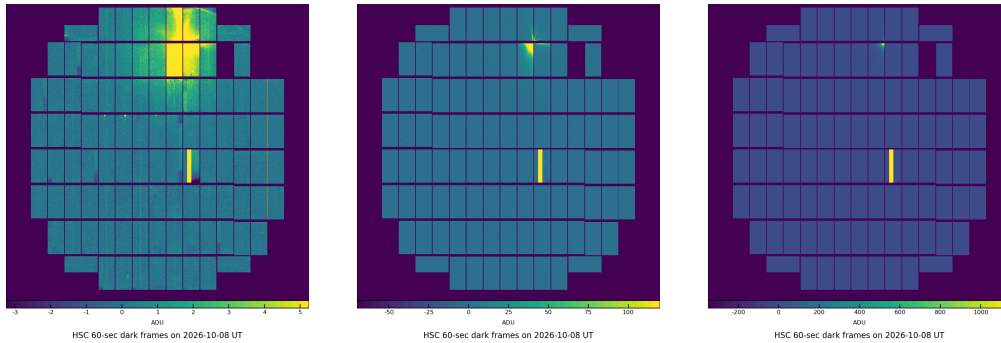


Fig.3: A 60-sec dark frame shown at different contrast levels.

- The CCD #044 was disabled as a temporary measure to prevent stray light generation on the night of October 9th HST. As a result, it was confirmed that the stray light disappeared completely in images with Exposure IDs of HSCE00392470 and later. Further investigation of this issue will be conducted at a later date.

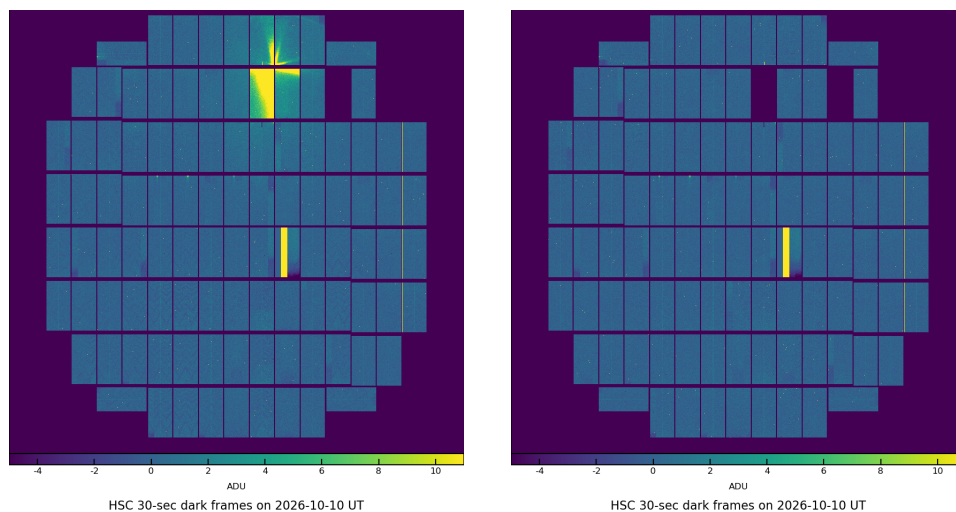


Fig.4: 30-sec dark frames before (left) and after (right) CCD #044 disabled.