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Continued Swift monitoring of the black hole candidate MAXI J1659-152

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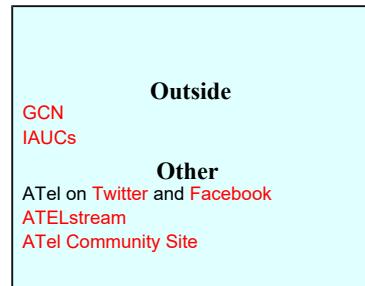
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Continued Swift monitoring of the black hole candidate MAXI J1659-152

ATel #3298; ***Y. J. Yang, R. Wijnands (University of Amsterdam)***
on 20 Apr 2011; 16:08 UT

Credential Certification: Rudy Wijnands (rudy@space.mit.edu)

Subjects: Optical, Ultra-Violet, X-ray, Binary, Black Hole, Transient

Referred to by ATel #: [3339](#), [3358](#), [3379](#), [3506](#), [3517](#)

We report on an additional Swift observation of the black hole candidate MAXI J1659-152 (ATel #[2873](#), GCN #[11296](#)) during the decay phase of its last outburst. One more observation was performed after our previous reports (ATel #[3201](#), ATel #[3249](#)). The observation was taken on 2011-04-18 10:15:04 UT for about 1.4 ks in Photon Counting mode.

Our previous results demonstrated that the source flux was slowly decreasing in time. However, our latest observation reveals a dramatic drop in flux, suggesting that MAXI J1659-152 is accelerating its decay rate. The source might soon be undetectable with Swift/XRT. From the 0.3-10 keV image, we obtained 6 counts within a source radius 20" centered at the position of MAXI J1659-152 (ATel #[2877](#)). We used WebPIMMS to estimate the source flux by inputting the background subtracted count rate ~0.0039 c/s, column density 3e+21 cm^-2, and a power-law photon index 2 (ATel #[3249](#)). The obtained unabsorbed flux from 0.5 to 10 keV energy band is 2.2e-13 erg cm^-2 s^-1, which gives an approximate source luminosity Lx=1.3e+33 ergs/s (assuming a distance of 7 kpc, Kuulkers et. al, 2011, arXiv: 1102.2102). This is more than an order of magnitude lower than our previous measurement Lx=5.6e+34 ergs/s on March 27 (ATel #[3249](#)).

Apart from the XRT analysis, we also checked the UV/Optical data. The source was not detected in all filters. The obtained upper limits on the source magnitudes are v>19.0; b>20.0; u>19.6; uvw1>19.9; uvm2>20.0 and uvw2>20.5.

We thank the Swift team for their arrangement of these observations.

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