Swift Bulge Survey: X-ray activity of bursters KS 1741-293, IGR J17445-2747, SAX J1750.8-2900, and symbiotic X-ray binary XMMU J174445.5-295044


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Swift Bulge Survey: X-ray activity of bursters KS 1741-293, IGR J17445-2747, SAX J1750.8-2900, and symbiotic X-ray binary XMMU J174445.5-295044

ATel #12843; C. O. Heinke (Alberta), A. Bahramian (Curtin), R. Wijnands (Amsterdam), T. J. Maccarone (Texas Tech), N. Degenaar (Amsterdam), J. J.M. in 't Zand (SRON), J. A. Kennea (Penn State), E. Kuulkers (ESA), L. Rivera-Sandoval (Texas Tech), A. W. Shaw, G. R. Sivakoff (Alberta), J. Strader (MSU), A. J. Tetarenko (East Asian Observatory) on 5 Jun 2019; 18:29 UT

Credential Certification: Craig Heinke (cheinke@virginia.edu)

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Referred to by ATel #: 13095

The Swift Bulge Survey performs rapid shallow mapping of 16 square degrees of the Galactic Bulge with short (120-s in 2019) observations (see Atels #10265,#10273,#10305,#10419,#10422,#10428,#12751). After our first 2019 observations on April 4, 18 and May 8-9, we conducted further Swift Bulge Survey observations on May 16, May 23, and May 30.

In our May 30 observations, the transient X-ray burster KS 1741-293 (e.g. Atel #9387; De Cesare et al. 2007, MNRAS, 380, 615) was detected with the Swift/XRT at 0.2 cts/s (0.5-10 keV). We note that the Swift/XRT position of KS 1741-293 is consistent with the Chandra source CXOGC J174451.6-292042, in agreement with the identification by Degenaar, Wijnands and Muno (2008, Atel #1531), and inconsistent with the position suggested by Marti et al. (2007, A&A, 462, 1065). Using Degenaar et al's spectral parameters (N_H=1.7e23, photon index 1.6), we use PIMMS to estimate a flux F_X(0.5-10 keV, unabsorbed)=1.1e-10 erg/cm^2/s, and (for an 8 kpc distance) L_X(0.5-10)=8e35 erg/s. We estimate an upper limit, combining the three preceding Swift survey
The transient X-ray burster IGR J17445-2747 (Atels #10256, #10265, #10272, #10273, #10305, #10395) was barely detected (F_X(0.5-10 keV)=1e-11 erg/cm^2/s) on May 9-10 (Atel #12751). We detect 0-1 photons within 30" (vs. 5 on May 9-10) in follow-up Swift/XRT observations on May 17, May 22, May 23, May 25, May 28, or June 1, nor in our Survey observations on May 23 and May 30. The follow-up observations give individual upper limits of typically F_X(unabs, 0.5-10 keV)<1e-12 erg/cm^2/s. For an assumed 8 kpc distance, we infer that we have likely observed a very faint X-ray outburst from IGR J17445-2747, with a peak observed L_X of 8e34 erg/s (0.5-10 keV), though it may have reached a brighter peak L_X. The outburst lasted less than one month.

The transient X-ray burster SAX J1750.8-2900 (e.g. Atels #12048, #1431) has been detected throughout our 2019 survey observations, showing strong variability. Atel #12751 reported an increase from 3.2e-11 to 7e-10 erg/cm^2/s from April 4 to May 9; we then see a sharp drop on May 16 back to 3e-11 erg/cm^2/s, then a slow rise again up to 3.7e-10 erg/cm^2/s (or L_X(0.5-10 keV)=3e36 erg/s, at 8 kpc) by May 30.

The likely symbiotic X-ray binary XMMU J174445.5-295044 (Bahramian et al. 2014, MNRAS, 441, 640) was detected at roughly 0.04 ct/s in the April 18, May 9, May 23, and May 30 observations, only undetected on April 4. For a 3.1 kpc distance (Bahramian et al. 2014), Gamma=1.18, and N_H about 1e23 cm^-2 (Heinke et al. 2009, ApJ, 701, 1627), this corresponds to F_X (2-10 keV, unabs)=1e-11 erg/cm^2/s, L_X(2-10 keV)=1e34 erg/s.

We thank the Swift team for their support of these observations.
Swift detects an X-ray burst and renewed activity from KS 1741-293

Fermi GBM Detection of a Weak Outburst of 4U 0115+63

INTEGRAL/IBIS observations of the Galactic center region at the epoch of the short Fermi/LAT flare

INTEGRAL reports renewed activity from KS 1741-293

4U 1626-67 Torque Reversal Simultaneous with Swift/BAT Flux Increase

A torque reversal to spin-up in 4U 1626-67

SuperAGILE detects an X-ray burst from SAX J1750.8-2900

SAX J1750.8-2900 is returning to quiescence

Confirmation of the NIR counterparts to SLX 1746-331 and XTE J1810-189

Identification of the transient XTE J1719-291 = Swift J171916.9-290410

Swift/XRT observations of the X-ray transients KS1741-293 and XTE J1719-291

Chandra detects activity from the Galactic X-ray transients KS 1741-293, Swift J174535.5-290135.6 and CXOJG J174535.5-290124

Chandra detects Swift J174535.5-290135.6 in a relatively bright state

On the infrared counterpart to XTE J1810-189

Chandra Positions for the Neutron Star X-ray Transients XTE J1810-189 and SAX J1750.8-2900

A candidate near-infrared counterpart to SAX J1750.8-2900

Re-brightening of XTE J1719-291

Swift/XRT follow-up observation of the field of XTE J1719-291

NIR counterparts in the Swift error circles of the active transients SAX J1750.8-2900 and XTE J1810-189

XTE J1810-189 is a Neutron Star

XTE J1719-291: A Brief X-ray Transient

Further Swift observations of XTE J1810-189

INTEGRAL detection of the outburst of SAX J1750.8-2900

Swift localisation of SAX J1750.8-2900

SuperAGILE detects the new outburst of SAX J1750.8-2900 a hard X-rays

Optical activity of 4U 0115+63

Swift/BAT reports increased activity from three galactic sources

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