Activity from SAX J1747.0-2853 and KS 1741-293 detected by INTEGRAL Galactic Bulge Monitoring


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Referred to by ATEL #: 10265, 12843

A new season of observations has started for the INTEGRAL Galactic Bulge Monitoring Program (ATEL #438; Kuulkers et al. 2007, A&A, 466, 595; see also: http://integral.esac.esa.int/BULGE ). During the observation performed on August 17, 2016, between UTC 17:20 and 21:01, the neutron star low-mass X-ray binary (NS-LMXB) SAX J1747.0-2853 (aka 1A 1743-288) is detected by the twin JEM-X cameras with an effective exposure time of \( \sim 15 \) ks. The highest pixels on the combined JEM-X1+2 significance mosaics between 3-10 keV and 10-25 keV reach 6 and 3 \( \sigma \), respectively. The corresponding fluxes are measured at 8 +/-2 mCrab (3-10 keV) and 6 +/-4 mCrab (10-25 keV). The source does not appear in the 18-40 keV and 40-100 keV mosaics of the IBIS/ISGRI camera, and we estimate the 5-\( \sigma \) upper limits at 18 mCrab and 21 mCrab, respectively.

We note that SAX J1747.0-2853 was already reported in outburst during a Chandra observation on May 17, 2016 (ATEL #9115). It appears from the MAXI 2-20 keV light curve (http://maxi.riken.jp/top/index.php?cid=1&jname=J1747-288#lc ) that the outburst has declined and stabilized at the current level since the end of June 2016.

During the same observation, a typical type-I X-ray burst from the NS-LMXB KS 1741-293 was detected by JEM-X on MJD 57617.8233 (UTC 19:45:30 on August 17, 2016). The burst light curves reveal this event is likely a photospheric radius expansion burst. This source is also detected by ISGRI, and we measure the following average fluxes: 9 +/-2 mCrab (3-10 keV), 11.5 +/-4 mCrab (10-25 keV), 18 +/-2 mCrab (18-40 keV), and 19 +/-3 mCrab (25-50 keV).
mCrab (40-100 keV).

INTEGRAL will continue to monitor the Galactic Bulge (next time on August 21st) at a rough cadence of an observation every satellite revolution (2.7 days) until October 24th. Near-Real-Time data are publicly available from the ISDC (http://www.isdc.unige.ch/integral/archive#DataRelease).
ATel #9387: Activity from SAX J1747.0-2853 and KS 1741-293 detected by INTEGRAL Galactic Bulge Monitoring

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