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Renewed activity from the magnetar CXOU J164710.2-455216

ATel #11264; *Alice Borghese (U. Amsterdam), Francesco Coti Zelati (IEEC-CSIC), Nanda Rea (IEEC-CSIC, U. Amsterdam), Paolo Esposito (U. Amsterdam), Sandro Mereghetti, Fabio Pintore (INAF/IASF-Mi), on behalf of a larger collaboration*
on 6 Feb 2018; 16:02 UT
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Referred to by ATel #: [11270](#)

On 2018 February 5 at 19:27:11 UT, Swift BAT detected a new burst from a direction consistent with the magnetar CXOU J164710.2-455216 (trigger=808755; Barthelmy et al. 2018, GCN #22389). Moreover, INTEGRAL detected two short bursts from CXOU J1647 on 2018 February 6 at 07:25:58 UT and 12:33:36 UT. The source was recovering from a major outburst, started on 2017 May 16 (trigger=753085; D'Ai et al. 2017, GCN #21095), when it reached a 0.5-10 keV absorbed X-ray flux of $8(+2)(-4)e-12$ erg s⁻¹ cm⁻², a factor of about 10 larger than the quiescent value.

The XRT began observing the field about 40 s after the BAT trigger for an exposure time of 1.2 ks. The time-averaged spectrum could be well described by an absorbed power law with a photon index of 1.8(3) and a column density of $3.1(7)e22$ cm⁻² (errors are quoted at 1sigma confidence level; see also Barthelmy et al. 2018, GCN #22389). The source had an averaged count rate of about 0.3 cts/s in the energy band 0.5-10 keV, corresponding to an absorbed flux of $2.3(2)e-11$ erg s⁻¹ cm⁻².

We note that the light curve was highly variable and at the end of the observation (about 10 minutes after the trigger) the absorbed 0.5-10 keV flux was approximately $1.2(+0.1)(-0.4)e-11$ erg s⁻¹ cm⁻², substantially higher than in the last Swift observation performed before the event, on 2018 January 28 when it was around $2e-12$ erg s⁻¹ cm⁻².

We are monitoring the source since its outburst onset in 2017 May with Swift, Chandra and NuSTAR observations (ATEL #10878). Swift observations are already planned till the end of February, and new simultaneous Chandra and NuSTAR observations will be performed within the next two weeks.

Related

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- 11264 [Renewed activity from the magnetar CXOU J164710.2-455216](#)
- 10878 [Continuous X-ray monitoring of the third outburst of the magnetar CXOU J164710.2-455216](#)
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