



## UvA-DARE (Digital Academic Repository)

### Swift resumes X-ray monitoring observations of the Galactic center after Sun constraints

Degenaar, N.; Wijnands, R.; Reynolds, M.T.; Miller, J.M.; Kennea, J.A.

**Publication date**

2021

**Document Version**

Final published version

**Published in**

The astronomer's telegram

**License**

Unspecified

[Link to publication](#)

**Citation for published version (APA):**

Degenaar, N., Wijnands, R., Reynolds, M. T., Miller, J. M., & Kennea, J. A. (2021). Swift resumes X-ray monitoring observations of the Galactic center after Sun constraints. *The astronomer's telegram*, 14378. <https://www.astronomerstelegram.org/?read=14378>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

## Outside

GCN  
IAUCs  
ATel on Twitter

## Patreon

# The Astronomer's Telegram

Post | Search | Policies  
Credential | Feeds | Email

2 May 2022; 14:37 UT

This space for free for your conference.

MIAPP workshop on  
Interacting Supernovae  
6 February - 3 March 2023  
Garching, GermanyNe/O Si  
→

**Thanks to Patrons, The Astronomer's Telegram is free to read, free to publish and always will be. Thank you.**

[ [Previous](#) | [Next](#) | [ADS](#) ]

## Swift resumes X-ray monitoring observations of the Galactic center after Sun constraints

ATel #14378; *N. Degenaar, R. Wijnands (University of Amsterdam), M. T. Reynolds, J. M. Miller (University of Michigan), J. A. Kennea (Penn State University), on behalf of a larger collaboration*

*on 8 Feb 2021; 15:06 UT*

*Credential Certification: Nathalie Degenaar (degenaar@uva.nl)*

Subjects: X-ray, Binary, Black Hole, Neutron Star, Transient

## Tweet

Starting on 2021 February 4, Swift resumed its X-ray monitoring campaign of the Galactic center during which daily 1.0-ks exposures are obtained (see Degenaar et al. 2015 for a description of the program). The  $\sim 20 \times 20$  arcmin region around Sgr A\* that is covered by our campaign currently does not contain any active X-ray transients. For a distance of 8 kpc, the sensitivity limit of our daily  $\sim 1$ -ks XRT exposures convert to an approximate luminosity of  $\sim 1E34$  erg/s.

In the last observation before the Sun-constrained window, performed on 2020 November 2, there was one transient active: the neutron star low-mass X-ray binary (LMXB) AX J1745.6-2901. This source had entered an outburst in 2019 September (ATel #13150) and remained active since (see ATels #13683 and #13839). Its long outburst must have thus ended between November 2 and February 4.

We also report that the transient neutron star LMXB GRS 1741-2853 returned to quiescence just before the Sun-constrained window. It was last detected in the observation performed on 2020 October 26. This outburst had started around 2020 April 25 (ATel #13683) and thus had a duration of 6 months. Since the beginning of our program in 2006, numerous outbursts of this source have been detected (e.g., Degenaar & Wijnands 2009, 2010, 2014; Degenaar et al., 2015; ATels #8881, #10859), but typically these lasted only for 20-40 days. The 2020 outburst is thus by far the longest one that has been observed for this source over the past 15 years.

Quick-look results of our daily Swift/XRT observations of the Galactic center are immediately posted at the [Swift Sgr A\\* Monitoring Campaign Website](#).

References:

## Related

- 14788 [Swift/XRT detects a new accretion outburst from the Galactic center X-ray transient AX J1745.6-2901](#)
- 14378 [Swift resumes X-ray monitoring observations of the Galactic center after Sun constraints](#)
- 13839 [Renewed activity of the Galactic center transient Swift J174535.5-285921 seen with Swift/XRT](#)
- 13683 [Swift/XRT detects a new outburst of the Galactic Center transient GRS 1741.9-2853](#)
- 13453 [Swift/XRT detects \(continued\) activity of the Galactic center transient AX J1745.6-2901](#)
- 13150 [Swift/XRT detects a new outburst of the Galactic Center transient AX J1745.6-2901](#)
- 11313 [X-ray Flare from Galactic Center Detected by Swift](#)
- 11263 [Swift resumes X-ray monitoring observations of the Galactic center in 2018](#)
- 10900 [Swift/XRT detects activity of a very-faint X-ray transient, likely the neutron star X-ray binary AX J1745.6-2901, near Sgr A\\*](#)
- 10859 [Swift/XRT detects a new accretion outburst of the Galactic center neutron star transient GRS 1741-2853](#)
- 10323 [Swift/XRT detects renewed activity of the Galactic center transient AX J1745.6-2901](#)
- 10089 [Swift resumes X-ray monitoring observations of the Galactic center in 2017](#)
- 9551 [Swift/XRT detects renewed activity of the Galactic center transient XMM J174457-2850.3](#)
- 9236 [Swift/XRT detects renewed activity of the Galactic center X-ray transient Swift J174535.5-285921](#)
- 9196 [Continued Swift/XRT observations of the new Galactic center transients SWIFT J174540.2-290037 and SWIFT J174540.7-290015](#)
- 9152 [VVV near-infrared observations of the Swift J174540.2-290037 field](#)
- 9109 [Swift/XRT detection of another active X-ray transient close to Sgr A\\*](#)
- 9000 [Hard X-ray activity from the direction to Sgr A\\* revealed by INTEGRAL](#)
- 8881 [Swift/XRT detects renewed activity of the Galactic center](#)

Degenaar & Wijnands 2009, A&A 495, 547

Degenaar & Wijnands 2010, A&A 524, 69

Degenaar et al. 2014, IAU conf. proc. 303, 315

Degenaar et al. 2015, JHEA 7, 137

	transient GRS 1741-2853
8793	A Search for a Radio Counterpart to Swift J174540.7-290015
8746	Chandra Position of Galactic Center X-ray Transient Swift J174540.7-290015
8737	VVV near-infrared observations of the Swift J174540.7-290015 field
8729	Search for pulsed radio emission from SWIFT J174540.7-290015
8689	Near-IR source content of the error region for SWIFT J174540.7-290015
8684	INTEGRAL observations of Swift J174540.7-290015
8649	New Galactic Center X-ray Transient Detected by Swift: SWIFT J174540.7-290015
7023	Swift resumes X-ray monitoring observations of the Galactic center
5847	Swift/XRT observations of the Galactic center have resumed
5332	Report on (non-)activity in the Galactic bulge region as seen by INTEGRAL
5246	Swift/XRT detects activity of the Galactic center transient GRS 1741-2853
5226	New Swift/XRT observations confirm that the active Galactic center transient is AX J1745.6-2901
5222	Swift/XRT monitoring observations detect an active X-ray transient near the Galactic center
5020	NuSTAR discovery of a 3.76 second pulsar in the Sgr A* region
3529	IR counterpart candidates to the transient Swift J174535.5-285921 - UPDATE
3525	Chandra Localization of the Galactic Center X-ray Transient Swift J174535.5-285921
3508	The Galactic center transient Swift J174535.5-285921 has returned to quiescence
3481	IR counterpart candidates to the transient Swift J174535.5-285921
3476	Search for an IR counterpart to the newly discovered transient Swift J174535.5-285921
3472	Swift/XRT discovers a new X-ray transient near the Galactic center: Swift J174535.5-285921
1531	Chandra detects activity from the Galactic X-ray transients KS 1741-293, Swift J174535.5-290135.6 and CXOGC J174535.5-290124
1513	Chandra detects Swift J174535.5-290135.6 in a relatively bright state
1058	Long duration outbursts from the two X-ray bursters AX J1745.6-2901 and GRS 1741.9-2853 suggested by XMM-Newton observations
1006	Renewed activity of the Galactic center transients Swift J174535.5-290135.6 and GRS 1741.9-2853 as observed with Swift/XRT
1005	Two active X-ray transients in the Galactic Center region as seen by INTEGRAL
892	Renewed activity of the very faint X-ray transient CXOGC J174535.5-290124 and continued activity of the neutron-star X-ray transient

	<a href="#">SAX J1747.0-2853</a>
<a href="#">756</a>	<a href="#">INTEGRAL detects SWIFT J174535.5-290135.6</a>
<a href="#">753</a>	<a href="#">Swift/XRT detection of a transient source in the Galactic Center</a>

---

---

[ [Telegram Index](#) ]

R. E. Rutledge, Editor-in-Chief

[rrutledge@astronomerstelegram.org](mailto:rrutledge@astronomerstelegram.org)

Derek Fox, Editor

[dfox@astronomerstelegram.org](mailto:dfox@astronomerstelegram.org)