



## UvA-DARE (Digital Academic Repository)

### Swift/XRT confirmation of activity from H 1658-298, no detection of MAXI J1327-627

Bahramian, A.; Heinke, C.O.; Wijnands, R.

**Publication date**

2015

**Document Version**

Final published version

**Published in**

The astronomer's telegram

[Link to publication](#)

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

Bahramian, A., Heinke, C. O., & Wijnands, R. (2015). Swift/XRT confirmation of activity from H 1658-298, no detection of MAXI J1327-627. *The astronomer's telegram*, 7957. <http://www.astronomerstelegam.org/?read=7957>

**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.

14 Dec 2015; 09:55 UT

## Outside

GCN  
IAUCs

## Other

ATel on [Twitter](#) and [Facebook](#)  
ATELstream  
ATel Community Site  
MacOS: [Dashboard Widget](#)

## Your Conference Here

This space for free for  
conference advertising.[ [Previous](#) | [Next](#) | [ADS](#) ]

## Swift/XRT confirmation of activity from H 1658-298, no detection of MAXI J1327-627

ATel #7957; [A. Bahramian](#), [C. O. Heinke \(Alberta\)](#), [R. Wijnands \(Amsterdam\)](#)  
on 26 Aug 2015; 21:22 UT  
Credential Certification: [Arash Bahramian \(bahramia@ualberta.ca\)](mailto:bahramia@ualberta.ca)

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

Tweet

We report our follow up Swift observations of reported enhanced activity by MAXI from tentative sources MAXI J1327-627 and MAXI J1702-301 (ATel #7946).

MAXI reported enhanced activity from the direction of H 1658-298 (or MXB 1659-298) on 2015, August 21st (ATel #7943). This was later confirmed using INTEGRAL observations (ATel #7946). We observed this region with Swift/XRT in PC mode on August 25th. H 1658-298 is clearly detected in our observation. Performing XRTCentroid gives the coordinates of this source as RA = 17:02:06.50 and Dec = -29:56:40.86 (with radial uncertainty of 4 arcsec). This is consistent with the published coordinates of H 1658-298 (Wijnands et al. 2003, ApJ, 594, 952).

H 1658-298 is an eclipsing X-ray transient which has exhibited type-I X-ray bursts in the past (Lewin et al. 1976, IAU Circ. 2994, Cominsky & Wood 1984, ApJ, 283, 765). Due to heavy pile-up in our observation, we extracted a spectrum following the Swift/XRT pile up thread (<http://www.swift.ac.uk/analysis/xrt/pileup.php>). We fit the spectrum with an absorbed power-law, assuming Wilms et al. (2000, ApJ, 542, 914) abundances. This resulted in an acceptable fit with reduced  $\chi^2$  of 0.7167 for 78 d.o.f. We find  $N_H = 4.1(+/-0.7)e^{21} \text{ cm}^{-2}$ , photon index of 1.7 (+/-0.1) and an unabsorbed flux of  $5.8(+/-0.3)e^{-10} \text{ erg/s/cm}^2$  in 0.5-10 keV band, implying a luminosity (for a 10 kpc distance, e.g. Oosterbroek et al. 2001, A&A, 376, 532) of  $7e^{36} \text{ erg/s}$ .

To compare hydrogen column density with previous studies, we also performed a similar fit assuming Anders et al. 1989 (GeCoA, 53, 197) abundances and we found  $N_H = 3.3(+/-0.5)e^{21} \text{ cm}^{-2}$ . This is higher than measured in quiescence by Cackett et al. (2008, ApJ, 687, L87), but consistent with suggested variations of  $N_H$  observed in later observations (Cackett et al. 2013 ApJ, 774, 131). We also looked for flares, type-I X-ray bursts and dips in the XRT/PC lightcurve, but did not find any.

We also observed the vicinity of MAXI J1327-627 with Swift/XRT. Due to large uncertainties in position of the initial detection ( $\sim 20$  arcmin around RA = 13:27:29, Dec=-62:47:39), we performed a 4-tile set of 500 second observations to cover the error circle (Obs.IDs: 34006-9). We found no sources in this region down to an X-ray flux (unabsorbed, assuming photon index of 1.7,  $N_H=1e^{22}$ ) of  $2e^{-12} \text{ erg/s/cm}^2$  in 0.5-10 keV band. It is unclear whether the MAXI J1327-627 detection was a very short outburst, a spurious detection, or produced by another, more distant source.

We thank the Swift team for rapidly scheduling our observations.

## Related

- 8046 [Swift follow-up observations of outburst from H 1658-298](#)
- 7957 [Swift/XRT confirmation of activity from H 1658-298, no detection of MAXI J1327-627](#)
- 7947 [Swift/XRT follow up on X-ray burst from SAX J1324.5-63.13](#)
- 7946 [INTEGRAL confirms the detection of renewed activity from the NS transient H 1658-298](#)
- 7943 [MAXI/GSC detection of renewed X-ray activities of SAX J1324.5-6313/MAXI J1327-627 and H 1658-298/MAXI J1702-301](#)

[ **Telegram Index** ]

R. E. Rutledge, Editor-in-Chief

Derek Fox, Editor

Mansi M. Kasliwal, Co-Editor

rrutledge@astronomerstelegam.org

dfox@astronomerstelegam.org

mansi@astronomerstelegam.org