IGR J17445-2747

Updated Swift position


Published in:
The astronomer's telegram

Citation for published version (APA):

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IGR J17445-2747: Updated Swift position

on 17 Apr 2017; 18:27 UT

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Subjects: X-ray, Transient

Referred to by ATel #: 10284, 10305, 10355, 10395, 12751

Utilizing data from the Swift observation of IGR J17445-2747 taken at 17:48UT on April 14th, 2017 (note these are the same data reported on in ATEL #10272), we calculated an updated position for the Swift XRT counterpart of IGR J17445-2747 reported by Heinke et al. (ATEL #10265). Using UVOT data to reduce the systematic errors in Swift's pointing (e.g. Goad et al., 2007, A&A, 476, 1401; Evans et al., 2009, MNRAS, 2009, 397, 1177), we find a position of:

RA/Dec (J2000) = 266.12647, -27.76685, which is equivalent to:

RA(J2000) = 17h 44m 30.35s,
Dec(J2000) = -27d 46m 00.7s,

with a position error of 2.2 arc-seconds radius (90% confidence). This position lies 7.2 arc-seconds from the 7.5 arc-second radius error region reported by Heinke et al. (ATEL #10265), and is therefore consistent with that position within errors.

The previously reported counterpart, XMMSL1 J174429.4-274609 (Malizia et al. 2010, MNRAS, 408, 975), lies 15 arc-seconds from this position, and Saxton et al. (2008, A&A, 480, 2) report a 90% confidence position error on XMM Slew Survey Catalog sources of 17 arc-seconds. We therefore suggest that XMMSL1 J174429.4-274609, the XRT source, and IGR J17445-2747 are likely the same object. A catalog search reveals a K=9.6 IR source, 2MASS J17443041-2746004, which lies 0.9 arc-seconds from the center of the XRT error circle. However, given the density of IR sources in the field, we cannot firmly associate this IR source with the X-ray transient.

We note that our calculated position lies 7.3 arc-seconds from the position reported by Mereminskiy et al. (ATEL #10272), and is inconsistent with that position. However, there are no other X-ray point sources inside the XRT field of view, and we are utilizing the same data to calculate our position. The position based on XRT data alone is also inconsistent with their position. To calculate our position we have utilized the standard tools provided by the University of Leicester "User Objects" web page (http://www.swift.ac.uk/user_objects), and have confirmed this position with a separate by-hand analysis, therefore we believe our position to be the correct one.

XRT image with various error circles overlaid
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