

# IAUC 6818: XTE J0055-724 = 1SAX J0054.9-7226

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## XTE J0055-724 = 1SAX J0054.9-7226

F. E. Marshall, Goddard Space Flight Center (GSFC); and J. C. Lochner, GSFC and Universities Space Research Association (USRA), report the discovery of a transient x-ray source, designated XTE J0055-724, that was pulsating with a period of 59.0 +/- 0.2 s during an observation of the Small Magellanic Cloud (SMC) with the RXTE on Jan. 20: "Based on scans across the source on Jan. 22, we estimate a position of R.A. = 0h55m.3, Decl. = -72o29' (equinox 2000.0; estimated error circle 10'). The average flux was about 6 x 10E-11 erg sE-1 cmE-2 in the band 2-10 keV, with approximately sinusoidal variations of +/- 30 percent. The source was not seen during an observation on Jan. 12."

A. Santangelo and G. Cusumano, Istituto di Fisica Cosmica ed Applicazioni dell'Informatica del CNR, Palermo; G. L. Israel, Osservatorio Astronomico di Roma; D. Dal Fiume, M. Orlandini, and F. Frontera, Istituto di Tecnologie e Studio delle Radiazioni Extraterrestri, Bologna; A. N. Parmar, Space Science Department, European Space Agency, ESTEC; F. E. Marshall, Goddard Space Flight Center (GSFC); and J. C. Lochner and R. H. D. Corbet, GSFC and Universities Space Research Association, report: "A BeppoSAX Narrow Field Instruments Target Of Opportunity observation in the direction of the SMC was performed on Jan. 28. The BeppoSAX MECS detected a pulsating source located at R.A. = 0h54m54s.8, Decl. = -72o26'41" (equinox 2000.0; uncertainty radius 50"), which we have designated as 1SAX J0054.9-7226. The source had a flux of 1.9 x 10E-11 erg sE-1 cmE-2 (2-10 keV) and exhibited pulsations of period 58.969 +/- 0.001 s. Our position for 1SAX J0054.9-7226 is consistent with that of the ROSAT WGACAT source 1WGA J0054.9-7226 and of the Einstein source 2E 0053.2-7242. A periodicity search of archival data from the October 1991 ROSAT observation of 1WGA

J0054.9-7226 reveals a strong pulsation with period  $59.072 \pm 0.001$  s; the same source was not detected in four ROSAT PSPC pointings performed between April and November 1993. Our preliminary conclusion is that 2E 0053.2-7242 = XTE J0055-724 = 1WGA J0054.9-7226 is a newly-recognized 59-s transient x-ray pulsar that is likely to be in a Be/high-mass-x-ray-binary system and unrelated to the three x-ray pulsars reported on [IAUC 6788](#), [6803](#), and [6814](#). At least four other sources are now in the MECS field-of-view. Analysis of these sources is currently underway."

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