TABLE 1. Observation dates, livetimes (s), and background subtracted count rates (counts s^{-1}) for the 4 ROSAT HRI observations of N49.

Observation	Start Date	End Date	Livetime	N49	RX 0525-6604
A	3/17/92	3/21/92	21000	0.815 ± 0.006	0.016 ± 0.006
B	10/22/92	11/27/92	8170	0.808 ± 0.010	0.017 ± 0.003
C	2/19/93	3/19/93	12980	0.822 ± 0.008	0.018 ± 0.002
D	1/5/94	1/5/94	7535	0.792 ± 0.011	0.012 ± 0.003

feature in the southeast. To locate the center of the RX 0525-6604, a secton of the image including the RX 0525-6604 was fit to a model consisting of a two dimensional gaussian superimposed on sloping planar background. The fitted position for the RX 0525-6604 centroid was R.A.(J2000)= $5^h26^m0.55^s$ and Dec(J2000)= $-66°4'35.56''$, with the one sigma fitting error being much less than the ROSAT positional uncertainty of $5''$. As noted in a previous work (8), the positional offset of RX 0525-6604 from the center of N49 implies a high transverse velocity of $\sim$ 1200 km s^{-1} for this object, assuming it is a neutron star ejected in the supernova explosion that formed N49. The excess counting rate of the RX 0525-6604 over the diffuse nebular emission and the instrumental background was obtained by taking background counts from a circular region of radius $6''$ at the center of N49 and subtracting this from the total counts from a similar circular region centered on the position of RX 0525-6604. The background subtracted count rates for both RX 0525-6604 and the entire N49 nebula are given in Table 1.

Comparison of the average counting rate for each observation versus a constant counting rate model yields χ^2 values of 3.02 and 5.93 for RX 0525-6604 and N49, respectively. For 3 degrees of freedom, this is not significant at the 2σ level, and we conclude there is no evidence for variability on time scales of a few months to years for N49 and RX 0525-6604.

Although the HRI has limited spectral capability, the luminosity of the X-ray point source RX 0525-6604 can be calculated from the detector response function by assuming a spectral shape and a distance to N49. The blackbody luminosity L_{black} and the power law luminosity L_{pwr} were calculated assuming a blackbody temperature of $\sim 2.0\times10^6$ K, or an energy index of 2.2, with a neutral hydrogen column density along the line of sight of 5×10^{20} cm^2 (8). Here the blackbody temperature corresponds to the surface temperature of a typical 5400 year old neutron star, assuming pure neutrino cooling (modified URCA process) and no exotic cooling mechanisms or superfluidity (10). The energy index is from the ASCA measurment of the spectra of AX 1805.7-2025, the quiescent X-ray counterpart to SGR 1806-20 (11). Using the average RX 0525-6604 counting rate of 0.016 counts s^{-1} and a distance of 55 kpc to N49, we obtain a $0.1 - 2.4$ keV luminosity of $1.4(1.7) \times 10^{34}$ ergs s^{-1} for the blackbody (power law) model. Assuming pure blackbody surface emission from a spherical neutron star, the blackbody luminosity indicates an emission