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X-RAY ACTIVITY IN CYGNUS AND AQUILA

S. Brandt, A. J. Castro-Tirado and N. Lund, Danish Space Research Institute, report: "A new x-ray transient, EU 2053+316, has been discovered with the WATCH wide field monitor on the ESA EURECA satellite.
First seen on Nov. 23, it has persisted since, but with varying intensity. The position (R.A. = 20h53m, Decl = +31.6 deg, equinox 1950.0;
estimated error radius 1 deg) is inside the Cygnus Loop and near the bright northwestern rim as seen in the Einstein image of the Loop.
Cyg X-2 flared on Nov. 14 and reached an intensity of 500 mCrab above 6 keV on Nov. 15, while Cyg X-3 flared to 300 mCrab on Nov. 17; both sources remain above the 100 mCrab level. The recurrent x-ray transient Aql X-1 (V1333 Aql) has been active since Nov. 20. GRS 1915+105 (IAUC 5590) has been monitored since the end of August and is still active and observed above 15 keV."

PERIODIC COMET SWIFT-TUTTLE (1992t)

G. Paubert, Institut de Radio Astronomie Millimetrique; P. Colom, D. Bockelee-Morvan, J. Crovisier and L. Jorda, Observatoire de Paris-Meudon; and D. Despois, Observatoire de Bordeaux, report: "The millimeter spectrum of this comet was observed on Nov. 21 with the IRAM 30-m telescope. The following lines were detected (signal-to-noise ranging from 7 to 30), preliminary evaluations of the corresponding molecular production rates being given in units of 10**27 s-1: HCN J(1-0),
89 GHz, 0.25; CH3OH, 12 lines around 145 and 165 GHz, 20; H2S 1(1,0)-1(0,1),
168.8 GHz, 1.5; H2CO 3(1,2)-2(1,1), 225.7 GHz, 2 (from a column density of 6 x 10**12 cm-2 for a 13" HPBW and assuming a parent-molecule distribution). All line profiles are asymmetric with a cusp at negative
velocities. The production rates of HCN and CH3OH given on IAUC 5653 were underestimated due to ephemeris uncertainties."

Jorda and J. Lecacheux, Paris-Meudon; and F. Colas, Observatoire de Paris, report: "Observations with the 1.05-m telescope and CCD camera at Pic du Midi during Nov. 20-26 showed
a strong helicoidal jet extending from 1500 to 20 000 km. The jet rotates from one night to the next, and its motion is clearly seen between exposures taken over a 2-hr interval. Our observations are compatible with a nuclear rotation period of about 2.9 days and an emission from a high-latitude active zone. From the observations in 1862 Z. Sekanina (1981, A.J. 86, 1741) deduced a period of 2.77 days."