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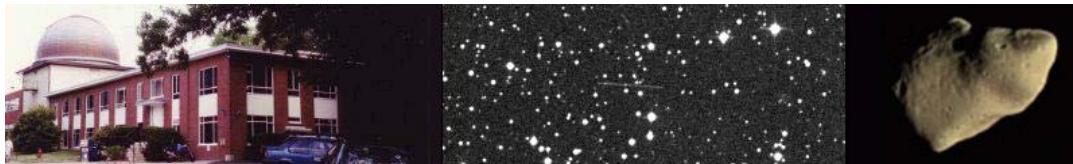
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MPEC 2010-T59 : 2010 TS19

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M.P.E.C. 2010-T59

Issued 2010 Oct. 9, 02:15 UT

The Minor Planet Electronic Circulares contain information on unusual minor planets and routine data on comets. They are published on behalf of Commission 20 of the International Astronomical Union by the Minor Planet Center, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.

Prepared using the [Tamkin Foundation Computer Network](#)

MPC@CFA.HARVARD.EDU

URL <http://www.minorplanetcenter.org/iau/mpc.html> ISSN 1523-6714

2010 TS19

Observations:

K10T19S	C2010	10	08.29071	01	56	17.60	+14	30	50.6	18.8	ET059704
K10T19S	C2010	10	08.30394	01	56	54.47	+14	31	09.9	19.2	ET059704
K10T19S	C2010	10	08.31720	01	57	32.03	+14	31	28.9	19.4	ET059704
K10T19S	C2010	10	08.33049	01	58	09.93	+14	31	46.6	19.6	ET059704
K10T19S*	C2010	10	08.34319	01	58	48.32	+14	32	11.2	18.1	V ET059703
K10T19S	C2010	10	08.35012	01	59	08.41	+14	32	20.3	18.2	V ET059703
K10T19S	C2010	10	08.35708	01	59	28.89	+14	32	29.0	18.2	V ET059703
K10T19S	C2010	10	08.36404	01	59	49.38	+14	32	37.5	18.2	V ET059703
K10T19S	C2010	10	08.40167	02	01	42.63	+14	33	19.8	17.9	V ET059703
K10T19S	C2010	10	08.40207	02	01	43.86	+14	33	20.0	18.0	V ET059703
K10T19S	C2010	10	08.40244	02	01	44.97	+14	33	20.7	18.1	V ET059703
K10T19S	C2010	10	08.40283	02	01	46.20	+14	33	20.9	18.4	V ET059703
K10T19S	C2010	10	08.46657	02	05	08.44	+14	34	15.8	17.9	V ET059703
K10T19S	C2010	10	08.46697	02	05	09.78	+14	34	16.7	18.3	V ET059703
K10T19S	C2010	10	08.46739	02	05	11.11	+14	34	16.1	18.1	V ET059703
K10T19S	C2010	10	08.46778	02	05	12.33	+14	34	17.1	18.6	V ET059703
K10T19S	JC2010	10	08.47097	02	05	23.08	+14	34	22.8	18.7	V ET059695
K10T19S	JC2010	10	08.47159	02	05	25.14	+14	34	23.2	19.3	V ET059695
K10T19S	JC2010	10	08.47221	02	05	27.20	+14	34	23.6	18.6	V ET059695
K10T19S	KC2010	10	08.83240	02	30	35.14	+14	34	24.3	17.9	R ET059A17
K10T19S	KC2010	10	08.83690	02	30	56.92	+14	34	24.5	17.6	R ET059A17
K10T19S	KC2010	10	08.84989	02	32	00.03	+14	34	23.0	17.7	R ET059A17
K10T19S	KC2010	10	08.87777	02	34	18.07	+14	34	45.8	17.7	R ET059A73
K10T19S	KC2010	10	08.87986	02	34	28.51	+14	34	45.1	17.7	R ET059A73
K10T19S	KC2010	10	08.89653	02	35	52.29	+14	33	57.1	18.5	V ET059510
K10T19S	KC2010	10	08.90224	02	36	21.50	+14	33	53.5	18.2	V ET059510
K10T19S	KC2010	10	08.91175	02	37	10.24	+14	34	30.2	17.9	V ET059595
K10T19S	KC2010	10	08.91647	02	37	34.59	+14	34	26.5	18.2	V ET059595
K10T19S	KC2010	10	08.92026	02	37	54.58	+14	33	41.3	17.9	V ET059510
K10T19S	KC2010	10	08.92118	02	37	59.05	+14	34	23.4	18.5	V ET059595
K10T19S	KC2010	10	08.92597	02	38	24.36	+14	33	35.6	18.3	V ET059510
K10T19S	KC2010	10	08.93636102	39	16.85	+14	33	54.3	17.5	V ET059B03	
K10T19S	KC2010	10	08.94110902	39	41.89	+14	33	49.2	17.7	V ET059B03	
K10T19S	KC2010	10	08.94584602	40	07.01	+14	33	44.5	17.2	V ET059B03	

Observer details:

[473 Remanzacco](#). Observers L. Donato, V. Gonano, E. Guido, G. Sostero. 0.45-m f/4.4 Newtonian reflector + CCD.

[510 Siegen](#). Observer H. Bill. 0.43-m f/6.8 reflector + CCD.

[595 Farra d'Isonzo](#). Observers M. Ceschia, E. Pettarin. 0.40-m f/4.5 reflector + CCD.

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695 Kitt Peak. Observers M. Trueblood, D. Bell, R. Crawford. **Measurer**
R. Crawford. 2.1-m f/7.7 Ritchey-Chretien + CCD.

703 Catalina Sky Survey. Observer R. A. Kowalski. Measurers J. D. Ahern,
 E. C. Beshore, A. Boattini, G. J. Garradd, A. R. Gibbs, A. D. Grauer,
 R. E. Hill, R. A. Kowalski, S. M. Larson, R. H. McNaught. 0.68-m Schmidt
 + CCD.

704 Lincoln Laboratory ETS, New Mexico. Observers M. Blythe, G. Spitz,
 R. Brungard, J. Paige, P. Festler. 1.0-m f/2.15 reflector + CCD.

A17 Guidestar Observatory, Weinheim. Observers M. Emmerich, S. Melchert.
 0.36-m f/6 Schmidt-Cassegrain + CCD.

B03 Alter Satzberg, Vienna. Observer M. Pietschnig. 0.35-m f/5.8
 Schmidt-Cassegrain + CCD.

Orbital elements:
 2010 TS19 Earth **MOID** = 0.0030 AU
 Epoch 2010 July 23.0 TT = JDT 2455400.5 MPC

M 327.72547		(2000.0)	P	Q
n 0.26420819	Peri.	252.74038	+0.02908182	-0.99922521
a 2.4053145	Node	195.66458	+0.95035627	+0.03586251
e 0.7002877	Incl.	5.63639	+0.30980188	-0.01621316
P 3.73	H 25.7	G 0.15	U 7	

Residuals in seconds of arc

101008 704 0.0 0.4+	101008 703 0.2+ 0.1+	101008 510 0.2+ 0.2-
101008 704 1.2- 0.4+	101008 703 0.6+ 0.7+	101008 510 0.8+ 0.4-
101008 704 0.5+ 0.8+	101008 703 0.1- 0.2-	101008 595 0.7- 0.2+
101008 704 0.1- 0.6+	101008 703 1.0- 0.6+	101008 595 0.7- 0.1-
101008 703 0.6+ 0.8-	101008 695 0.2- 0.1-	101008 510 0.8+ 0.1+
101008 703 0.6- 0.6-	101008 695 0.0 0.1-	101008 595 0.1+ 0.4+
101008 703 0.8+ 0.6-	101008 695 0.2+ 0.1-	101008 510 0.2+ 0.9-
101008 703 0.4+ 0.6-	101008 A17 1.0- 0.1+	101008 B03 0.2+ 0.2+
101008 703 0.0 0.1-	101008 A17 0.2+ 0.4+	101008 B03 0.3- 0.0
101008 703 0.1+ 0.3-	101008 A17 0.3+ 0.0	101008 B03 0.5- 0.5+
101008 703 0.3- 0.0	101008 473 0.1+ 0.2-	
101008 703 0.2+ 0.2-	101008 473 0.1+ 0.2-	

Ephemeris:
 2010 TS19 a,e,i = 2.41, 0.70, 6 q = 0.7209

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
2010 10 01	00 34.44	+12 55.5	0.0976	1.098	169.9	9.2	21.5	
2010 10 02	00 37.22	+13 01.6	0.0870	1.087	170.3	9.0	21.2	
2010 10 03	00 40.77	+13 08.6	0.0764	1.076	170.5	8.8	20.9	
2010 10 04	00 45.45	+13 17.2	0.0658	1.066	170.7	8.7	20.5	
2010 10 05	00 51.89	+13 27.9	0.0554	1.055	170.8	8.7	20.1	
2010 10 06	01 01.32	+13 41.9	0.0450	1.044	170.5	9.1	19.7	
2010 10 07	01 16.34	+14 00.9	0.0348	1.034	169.1	10.5	19.1	
2010 10 08	01 43.65	+14 25.7	0.0249	1.023	164.8	14.8	18.6	
2010 10 09	02 44.92	+14 37.6	0.0157	1.013	152.1	27.5	17.9	
2010 10 10	05 31.68	+10 14.5	0.00971	1.003	112.9	66.5	18.0	
2010 10 11	09 01.34	-02 17.5	0.0127	0.992	60.7	118.7	21.0	

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