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MPEC 2015-D02 : 2015 CZ13

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M.P.E.C. 2015-D02

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2015CZ13

Observations:

K15C13Z*	C2015	02	12.23167	05	27	22.501+04	43	23.23	20.7	wLED002F51
K15C13Z	C2015	02	12.24550	05	27	21.227+04	43	39.05	20.6	wLED002F51
K15C13Z	C2015	02	12.25927	05	27	19.990+04	43	54.68	20.5	wLED002F51
K15C13Z	C2015	02	12.27313	05	27	18.741+04	44	10.41	20.6	wLED002F51
K15C13Z	KC2015	02	13.24759	05	25	55.03	+05	02 47.9	20.3	RoED002291
K15C13Z	KC2015	02	13.24988	05	25	54.80	+05	02 50.7		oED002291
K15C13Z	KC2015	02	13.25214	05	25	54.64	+05	02 53.5		oED002291
K15C13Z	C2015	02	13.73971	05	25	14.49	+05	12 16.3	20.0	VMED002033
K15C13Z	C2015	02	13.74431	05	25	14.10	+05	12 21.5	20.0	VMED002033
K15C13Z	FC2015	02	13.81210	05	25	08.26	+05	13 41.3		qED002246
K15C13Z	FC2015	02	13.81248	05	25	08.24	+05	13 41.5	20.3	RqED002246
K15C13Z	FC2015	02	13.81280	05	25	08.21	+05	13 46.1		qED002246
K15C13Z	C2015	02	13.84546	05	25	05.46	+05	14 19.3	19.8	VMED002033
K15C13Z	C2015	02	13.85006	05	25	05.07	+05	14 24.6	19.8	VMED002033
K15C13Z	C2015	02	13.95731	05	24	56.06	+05	16 29.9	19.3	VMED002033
K15C13Z	C2015	02	13.96420	05	24	55.48	+05	16 37.9	19.4	VMED002033
K15C13Z	C2015	02	14.03334	05	24	50.10	+05	18 11.7	20.5	VuED002807
K15C13Z	C2015	02	14.03840	05	24	49.67	+05	18 17.7	20.7	VuED002807
K15C13Z	C2015	02	14.04372	05	24	49.22	+05	18 24.1	20.7	VuED002807

K15C13Z	KC2015	02	14.08555305	24	45.98	+05	19	02.3	20.5	RqED002448	
K15C13Z	C2015	02	14.10528605	24	44.33	+05	19	24.8	19.9	RtED002H01	
K15C13Z	C2015	02	14.10832505	24	44.08	+05	19	28.4	20.2	RtED002H01	
K15C13Z	C2015	02	14.11963605	24	43.11	+05	19	41.6	20.1	RtED002H01	
K15C13Z	KC2015	02	14.12332705	24	42.79	+05	19	46.5	20.8	RqED002448	
K15C13Z	C2015	02	14.13242005	24	42.02	+05	19	56.5	20.1	RtED002H01	
K15C13Z	KC2015	02	14.16546605	24	39.20	+05	20	35.3	20.1	RqED002448	
K15C13Z	JC2015	02	14.23114	05	24	33.69	+05	21	52.2	20.5	RoED002695
K15C13Z	JC2015	02	14.23887	05	24	33.05	+05	22	01.5	20.5	RoED002695
K15C13Z	JC2015	02	14.25420	05	24	31.73	+05	22	19.0	20.7	RoED002695
K15C13Z	C2015	02	15.03793	05	23	29.24	+05	37	51.9	20.2	VuED002807
K15C13Z	C2015	02	15.04316	05	23	28.80	+05	37	58.0	19.8	VuED002807
K15C13Z	C2015	02	15.04833	05	23	28.39	+05	38	04.5	20.2	VuED002807
K15C13Z	C2015	02	16.04034	05	22	11.49	+05	57	42.6	20.4	VuED002807
K15C13Z	C2015	02	16.04513	05	22	11.09	+05	57	49.1	20.3	VuED002807

Observer details:

033 Karl Schwarzschild Observatory, Tautenburg. Observer B. Stecklum. 1.34-m f/4 Schmidt + CCD.

246 Klet Observatory-KLENOT. Observers J. Ticha, M. Tichy, M. Kocer. Measurer M. Tichy. 1.06-m KLENOT Telescope + CCD.

291 LPL/Spacewatch II. Observer R. S. McMillan. 1.8-m f/2.7 reflector + CCD.

448 Desert Moon Observatory. Observer B. L. Stevens. 0.3-m Schmidt-Cassegrain + CCD.

695 Kitt Peak. Observers L. Lebofsky, M. Trueblood, R. Crawford. Measurer R. Crawford. 2.3-m f/3.0 Ritchey-Chretien + CCD.

807 Cerro Tololo. Observers T. Linder, R. Holmes, R. Williams. 0.41-m f/11 Ritchey-Chretien + CCD.

F51 Pan-STARRS 1, Haleakala. Observers B. Gibson, T. Goggia, N. Primak, A. Schultz, M. Willman. Measurers K. Chambers, S. Chastel, L. Denneau, H. Flewelling, M. Huber, E. Magnier, E. Schunova, R. Wainscoat, C. Waters, R. Weryk. 1.8-m Ritchey-Chretien + CCD.

H01 Magdalena Ridge Observatory, Socorro. Observer W. H. Ryan. 2.4-m f/8.9 reflector + CCD.

Orbital elements:

2015 CZ13					PHA, Earth MOID = 0.0094 AU		
Epoch 2014 Dec. 9.0 TT = JDT 2457000.5					MPC		
M				P	Q		
326.92890	(2000.0)						
n	0.21208635	Peri.	78.10408	-0.69120550	+0.69843941		
a	2.7848015	Node	145.68196	-0.72165443	-0.68063921		
e	0.7622997	Incl.	19.21169	+0.03807676	-0.22116206		
P	4.65	H	18.4	G	0.15	U	8

Residuals in seconds of arc

150212	F51	0.0	0.1+	150213	033	0.0	0.3-	150214	H01	0.0	0.4-
150212	F51	0.2-	0.1+	150213	033	0.1+	0.3-	150214	448	0.0	0.4-
150212	F51	0.1+	0.0	150213	033	0.7+	0.2+	150214	695	0.3+	0.3-
150212	F51	0.2+	0.1-	150213	033	0.6+	0.2+	150214	695	0.5+	0.0
150213	291	0.0	0.4-	150214	807	0.2-	0.4-	150214	695	0.0	0.4-
150213	291	0.5-	0.2-	150214	807	0.1-	0.3-	150215	807	0.0	0.0
150213	291	0.0	0.0	150214	807	0.1-	0.1-	150215	807	0.1-	0.1-
150213	033	0.2+	0.2-	150214	448	0.5-	0.1-	150215	807	0.1+	0.3+
150213	033	0.2+	0.3-	150214	H01	0.1-	0.4-	150216	807	0.1+	0.2-
150213	246	0.2-	0.3+	150214	H01	0.1+	0.3-	150216	807	0.2-	0.6+
150213	246	0.1-	0.0	150214	H01	0.0	0.3-				
150213	246	(0.1-	4.3+)	150214	448	0.0	0.0				

Ephemeris:

2015 CZ13		a,e,i = 2.78, 0.76, 19				q = 0.6619							
Date	TT	R. A. (2000)		Decl.	Delta	r	Elong.	Phase	V				
2015	01	17	06	16	52.1	-01	36	22	0.9511	1.8571	147.4	16.6	20.5
...													
2015	02	01	05	46	18.1	+01	28	12	0.8781	1.6945	130.8	26.1	20.5
...													
2015	02	09	05	32	17.8	+03	43	19	0.8572	1.6048	120.9	31.8	20.4
...													
2015	02	15	05	23	32.4	+05	37	00	0.8470	1.5362	113.5	36.1	20.4
2015	02	16	05	22	14.7	+05	56	48	0.8456	1.5247	112.3	36.8	20.4
2015	02	17	05	21	00.0	+06	16	48	0.8443	1.5131	111.1	37.5	20.4
...													
2015	02	23	05	14	35.1	+08	20	54	0.8373	1.4431	104.1	41.7	20.4
...													

2015 03 03	05 08 51.1	+11 15 36	0.8285	1.3483	95.2	47.1	20.4
...							
2015 03 18	05 05 58.5	+17 08 55	0.8019	1.1672	80.2	57.2	20.3

A. U. Tomatic

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