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# MPEC 2021-M75 : COMET C/2021 L3 (Borisov)

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COMET C/2021 L3 (Borisov)

G. Borisov reports the discovery of a comet taken by MARGO telescope (L51) on June 8 UT. He reports a very condensed 10" coma and a straight tail at position angle 175-185 deg. Additional reports of cometary features are as follows:

OC	Date	Reporter	Coma	Tail	PA	Exposures
095	2021-06-11	V. Rumyantsev	5"	9"	180	
H06	2021-06-12	H. Sato	8"			12x60s
B96	2021-06-13	E. Bryssinck	11"			30x120s
A71	2021-06-13	M. Jaeger	10"			
B96	2021-06-14	E. Bryssinck	8"			30x120s
A71	2021-06-16	M. Jaeger	10"			

Observations:

CK21L030*	C2021 06 08.90616	22 05 17.37	+71 44 59.8	20.2	RqEM075L51
CK21L030	C2021 06 08.93145	22 05 16.59	+71 45 14.2	20.1	RqEM075L51
CK21L030	C2021 06 08.95261	22 05 15.72	+71 45 25.3	20.1	RqEM075L51
CK21L030	C2021 06 10.88675	22 04 02.19	+72 03 12.7	20.2	RqEM075L51
CK21L030	C2021 06 10.90105	22 04 01.42	+72 03 19.5	20.1	RqEM075L51
CK21L030	C2021 06 10.91310	22 04 01.22	+72 03 26.6	20.1	RqEM075L51
CK21L030	hC2021 06 10.91993622	04 00.99	+72 03 30.4	20.2	GVEM075L01
CK21L030	C2021 06 10.92383	22 04 00.66	+72 03 33.5	20.1	RqEM075L51
CK21L030	hC2021 06 10.92435022	04 00.82	+72 03 33.2	20.4	GVEM075L01
CK21L030	hC2021 06 10.92877722	04 00.53	+72 03 35.6	20.3	GVEM075L01
CK21L030	hC2021 06 10.93369222	04 00.37	+72 03 38.7	20.5	GVEM075L01
CK21L030	2C2021 06 11.84864	22 03 23.13	+72 12 00.3	20.1	LcEM075095
CK21L030	2C2021 06 11.85009	22 03 23.07	+72 12 01.1	20.0	LcEM075095
CK21L030	2C2021 06 11.85155	22 03 23.01	+72 12 01.9	20.0	LcEM075095
CK21L030	2C2021 06 11.85301	22 03 22.95	+72 12 02.5	20.0	LcEM075095
CK21L030	2C2021 06 11.85446	22 03 22.90	+72 12 03.3	20.0	LcEM075095
CK21L030	2C2021 06 11.85592	22 03 22.84	+72 12 04.2	20.0	LcEM075095
CK21L030	2C2021 06 11.85791	22 03 22.76	+72 12 05.1	20.0	LcEM075095
CK21L030	2C2021 06 11.86006	22 03 22.63	+72 12 06.5	20.1	LcEM075095
CK21L030	2C2021 06 11.86221	22 03 22.51	+72 12 07.7	20.1	LcEM075095
CK21L030	2C2021 06 11.86436	22 03 22.41	+72 12 09.0	20.0	LcEM075095
CK21L030	2C2021 06 11.86652	22 03 22.34	+72 12 10.1	20.0	LcEM075095
CK21L030	2C2021 06 11.86867	22 03 22.28	+72 12 11.2	20.0	LcEM075095
CK21L030	2C2021 06 11.87082	22 03 22.20	+72 12 12.4	20.0	LcEM075095
CK21L030	2C2021 06 11.87297	22 03 22.12	+72 12 13.5	20.1	LcEM075095
CK21L030	2C2021 06 11.87512	22 03 22.00	+72 12 14.8	20.1	LcEM075095
CK21L030	KC2021 06 11.89802722	03 21.02	+72 12 26.5	20.2	GVEM075L06
CK21L030	C2021 06 11.91422	22 03 20.26	+72 12 36.5	20.4	RqEM075L51
CK21L030	KC2021 06 11.92078022	03 20.14	+72 12 39.0	20.3	GVEM075L06
CK21L030	C2021 06 11.93164	22 03 19.68	+72 12 45.5	20.5	RqEM075L51
CK21L030	C2021 06 11.94236	22 03 19.12	+72 12 52.0	20.3	RqEM075L51
CK21L030	KC2021 06 11.94780922	03 19.03	+72 12 53.8	20.0	GVEM075L06
CK21L030	2C2021 06 11.97869	22 03 17.63	+72 13 11.8	20.0	LcEM075095
CK21L030	2C2021 06 11.98084	22 03 17.54	+72 13 13.0	20.0	LcEM075095
CK21L030	2C2021 06 11.98299	22 03 17.39	+72 13 14.4	20.0	LcEM075095
CK21L030	2C2021 06 11.98514	22 03 17.28	+72 13 15.8	20.0	LcEM075095
CK21L030	KC2021 06 11.98770822	03 17.28	+72 13 16.1	19.7	GVEM075B49
CK21L030	2C2021 06 12.00450	22 03 16.59	+72 13 25.7	20.0	LcEM075095

CK21L030	2C2021	06	12.00665	22	03	16.47	+72	13	27.0	20.0	LcEM075095
CK21L030	2C2021	06	12.00880	22	03	16.34	+72	13	28.2	20.0	LcEM075095
CK21L030	KC2021	06	12.01090322	03	16.57	+72	13	28.6		19.8	GVEM075B49
CK21L030	2C2021	06	12.01096	22	03	16.23	+72	13	29.2	20.0	LcEM075095
CK21L030	KC2021	06	12.04120	22	03	14.91	+72	13	45.7		VEM075204
CK21L030	KC2021	06	12.05624	22	03	14.38	+72	13	53.8		VEM075204
CK21L030	KC2021	06	12.07128	22	03	13.71	+72	14	01.9	20.4	GVEM075204
CK21L030	C2021	06	12.43095	22	02	58.41	+72	17	18.9		VEM075H06
CK21L030	C2021	06	12.43617	22	02	58.13	+72	17	22.0	20.0	GVEM075H06
CK21L030	C2021	06	12.88845	22	02	38.51	+72	21	27.2	20.0	RqEM075L51
CK21L030	C2021	06	12.90294	22	02	37.76	+72	21	34.7	20.0	RqEM075L51
CK21L030	C2021	06	12.91722	22	02	37.13	+72	21	42.6	20.0	RqEM075L51
CK21L030	KC2021	06	13.00787	22	02	33.26	+72	22	32.6	20.1	GVEM075970
CK21L030	KC2021	06	13.01864	22	02	32.67	+72	22	38.2	21.7	GVEM075B96
CK21L030	KC2021	06	13.02399	22	02	32.69	+72	22	41.4	19.8	GVEM075970
CK21L030	KC2021	06	13.03507	22	02	31.88	+72	22	47.3	20.1	GVEM075B96
CK21L030	KC2021	06	13.05149	22	02	31.08	+72	22	56.6	19.6	GVEM075B96
CK21L030	KC2021	06	13.88814	22	01	53.66	+72	30	29.9	19.5	GXEM075J57
CK21L030	C2021	06	13.89386	22	01	53.27	+72	30	31.7	20.1	RqEM075L51
CK21L030	KC2021	06	13.90257	22	01	53.09	+72	30	37.1	19.3	GXEM075J57
CK21L030	C2021	06	13.93318	22	01	51.45	+72	30	53.6	20.1	RqEM075L51
CK21L030	C2021	06	13.94390	22	01	50.97	+72	30	59.9	20.0	RqEM075L51
CK21L030	KC2021	06	13.96398122	01	50.07	+72	31	10.4		20.0	GVEM075587
CK21L030	KC2021	06	13.97220	22	01	49.68	+72	31	15.4	20.0	GVEM075A71
CK21L030	KC2021	06	13.98614	22	01	49.13	+72	31	21.2	19.8	GVEM075A71
CK21L030	KC2021	06	13.99272	22	01	48.88	+72	31	25.9	19.6	GVEM075A71
CK21L030	KC2021	06	13.99295622	01	48.68	+72	31	26.0		20.1	GVEM075J95
CK21L030	KC2021	06	13.99859	22	01	48.55	+72	31	28.9	20.0	GVEM075B96
CK21L030	IC2021	06	14.00591622	01	48.16	+72	31	32.9			VEM075J95
CK21L030	KC2021	06	14.01215322	01	47.73	+72	31	36.2		20.3	GVEM075587
CK21L030	KC2021	06	14.01492	22	01	47.89	+72	31	38.9	20.6	GVEM075B96
CK21L030	KC2021	06	14.03126	22	01	46.72	+72	31	46.5	20.5	GVEM075B96
CK21L030	KC2021	06	14.92670	22	01	04.79	+72	39	50.0	19.9	RqEM075L27
CK21L030	KC2021	06	14.94996	22	01	03.61	+72	40	02.5	19.8	RqEM075L27
CK21L030	KC2021	06	14.97358	22	01	02.34	+72	40	15.3	20.0	RqEM075L27
CK21L030	KC2021	06	15.01457	22	01	00.29	+72	40	37.3	19.9	RqEM075L57
CK21L030	KC2021	06	15.02923	22	00	59.71	+72	40	45.2	19.8	RqEM075L57
CK21L030	KC2021	06	15.93702	22	00	14.89	+72	48	51.4	20.3	RqEM075L27
CK21L030	KC2021	06	15.96046	22	00	13.73	+72	49	03.7	20.1	RqEM075L27
CK21L030	KC2021	06	15.98391	22	00	12.53	+72	49	16.1	19.9	RqEM075L27
CK21L030	KC2021	06	16.97198	21	59	21.69	+72	58	01.5	20.2	GVEM075A71
CK21L030	KC2021	06	16.97789	21	59	21.50	+72	58	04.3	20.4	GVEM075A71
CK21L030	KC2021	06	17.83959	21	58	35.38	+73	05	39.9	19.2	GVEM075L02
CK21L030	KC2021	06	17.86174	21	58	34.01	+73	05	53.3	18.9	GVEM075L02
CK21L030	KC2021	06	18.15721121	58	17.73	+73	08	27.8		20.0	GVEM075W62
CK21L030	KC2021	06	18.16781821	58	17.12	+73	08	34.1		20.1	GVEM075W62
CK21L030	KC2021	06	18.17883721	58	16.84	+73	08	40.2		20.4	GVEM075W62
CK21L030	KC2021	06	18.98805	21	57	30.95	+73	15	43.9	20.2	GVEM075204
CK21L030	KC2021	06	19.04730	21	57	27.66	+73	16	15.3		VEM075204
CK21L030	C2021	06	20.85566	21	55	40.17	+73	31	55.0	20.1	RqEM075L51
CK21L030	C2021	06	20.86419	21	55	39.69	+73	31	57.9	20.1	RqEM075L51
CK21L030	C2021	06	20.87273	21	55	39.09	+73	32	00.6	20.0	RqEM075L51
CK21L030	KC2021	06	20.91222	21	55	36.98	+73	32	22.4	19.4	GVEM075J57
CK21L030	KC2021	06	20.92749	21	55	35.93	+73	32	30.4	19.6	GVEM075J57
CK21L030	KC2021	06	20.93817	21	55	35.16	+73	32	35.1	20.0	GVEM075J57
CK21L030	KC2021	06	22.24192	21	54	12.90	+73	43	43.6	20.1	RqEM075H36
CK21L030	KC2021	06	22.25880	21	54	11.88	+73	43	51.6	19.9	RqEM075H36
CK21L030	KC2021	06	22.27566	21	54	10.57	+73	44	00.2	19.8	RqEM075H36

## Observer details:

**095 Crimea-Nauchnij.** Observer V. Rumyantsev. 2.6-m f/4 reflector + CCD.  
**157 Frasso Sabino.** Observers R. Haver, R. Gorelli. Measurer R. Haver.  
 0.37-m f/6.70 Cassegrain + CCD.  
**204 Schiaparelli Observatory.** Observers L. Buzzi, A. Aletti. Measurer A. Aletti. 0.84-m f/3.5 reflector + CCD, 0.20-m f/4 reflector + CCD.  
**587 Sormano.** Observers S. Barni, E. Colzani. Measurer P. Sicoli. 0.5-m f/6.8 reflector + CCD.  
**970 Chelmsford.** Observer N. James. 0.28-m f/10.0 Schmidt-Cassegrain + CCD.  
**A71 Stixendorf.** Observers M. Jaeger, E. Prospero, S. Prospero. Measurer M. Jaeger. 0.35-m f/4.2 reflector + CCD.  
**B49 Paus Observatory, Sabadell.** Observer J. Camarasa. 0.30-m f/4 reflector + CCD.  
**B96 Brixia Observatory, Kruibeke.** Observer E. Bryssinck. 0.4-m f/3.8 reflector + CCD.  
**H06 iTelescope Observatory, Mayhill.** Observer H. Sato. 0.43-m f/6.8 astrograph + CCD + f/4.5 focal reducer.  
**H36 Sandlot Observatory, Scranton.** Observer G. Hug. 0.56-m reflector + CCD.  
**J57 Centro Astronomico Alto Turia, Valencia.** Observer A. Fornas. Measurers A. Fornas, G. Fornas, E. Arce, V. Mas., 0.4-m f/7 reflector + CCD.  
**J95 Great Shefford.** Observer P. Birtwhistle. 0.41-m f/6.3 Schmidt-Cassegrain + CCD.  
**L01 Visnjan Observatory, Tican.** Observers K. Korlevic, I. Lyon. Measurer K. Korlevic. 1.0-m f/2.9 reflector + CCD.  
**L02 NOAK Observatory, Stavradi.** Observer N. Sioulas. 0.25-m f/4.7 reflector + CCD.  
**L06 Sormano 2 Observatory, Bellagio Via Lattea.** Observer G. Ventre. Measurer P. Sicoli. 0.36-m Schmidt-Cassegrain + CCD.  
**L27 29PREMOTÉ Observatory, Dauban.** Observer J.-F. Soulier. 0.25-m f/3.5 Newtonian reflector + CCD.  
**L51 MARGO, Nauchnij.** Observer G. Borisov. 0.65-m f/1.5 astrograph + CCD.  
**W62 Comet Hunter Observatory2, New Ringgold.** Observer J. Maikner. 0.30-m f/3.8 Riccardi-Honders + CCD.

## Orbital elements:

C/2021 L3 (Borisov)  
 Epoch 2022 Mar. 2.0 TT = JDT 2459640.5  
 T 2022 Mar. 12.29419 TT  

q	(2000.0)	P	Q
8.3970663			
+0.0067729	Peri. 93.00385	+0.00067586	-0.96700662
+/-0.0000000	Node 344.93742	-0.20208621	+0.24936225
e 0.9431274	Incl. 78.60380	+0.97936750	+0.05212163

 From 96 observations 2021 June 8-22, mean residual 0".5.

C/2021 L3 (Borisov)  
 Epoch 2021 July 5.0 TT = JDT 2459400.5  
 T 2022 Mar. 12.26429 TT  
 Rudenko

q 8.3971194 (2000.0) P Q  
 z +0.0069095 Peri. 92.99930 +0.00073990 -0.96701973  
 +/-0.0000000 Node 344.94047 -0.20211334 +0.24929937  
 e 0.9419801 Incl. 78.60425 +0.97936186 +0.05217911  
 From 96 observations 2021 June 8-22, mean residual 0".5.

## Ephemeris:

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1	m2
2021 05 23		22 11 24.6	+69 05 28	8.8622	8.5649	69.8	6.4	20.1	
...									
2021 06 07		22 06 22.6	+71 27 19	8.7959	8.5484	72.7	6.5	20.0	
...									
2021 06 15		22 01 01.1	+72 40 29	8.7584	8.5399	74.3	6.6	20.0	
...									
2021 06 21		21 55 31.3	+73 33 07	8.7298	8.5337	75.6	6.6	20.0	
2021 06 22		21 54 28.3	+73 41 39	8.7250	8.5327	75.8	6.6	20.0	
2021 06 23		21 53 22.9	+73 50 07	8.7202	8.5317	76.0	6.6	20.0	
...									
2021 06 29		21 45 58.2	+74 39 06	8.6913	8.5256	77.3	6.7	20.0	
...									
2021 07 07		21 33 36.8	+75 38 41	8.6528	8.5178	79.0	6.7	20.0	
...									
2021 07 22		21 02 35.0	+77 06 13	8.5821	8.5038	82.2	6.8	20.0	

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