

[OBSERVERS](#)[DATA](#)[IAWN](#)[BETA](#)[STATUS](#)[SBN ANNEX](#)

- [Processing \(Info\)](#)

## MPEC 2021-T248 : 2021 TC13

The following [Minor Planet Electronic Circular](#) may be linked-to from your own Web pages, but must not otherwise be [redistributed electronically](#).

A form allowing access to any MPEC is at [the bottom of this page](#).

◀ [Read MPEC 2021-T247](#) ▶ [Read MPEC 2021-T249](#)

M.P.E.C. 2021-T248

Issued 2021 October 13, 21:56 UT

The Minor Planet Electronic Circulars contain information on unusual minor planets and routine data on comets. They are published on behalf of Division F 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 <https://www.minorplanetcenter.net/> ISSN 1523-6714

2021 TC13

### Observations:

K21T13C*	C2021	10	13.32661000	10	19.761+13	20	49.78	19.17wJET248F52
K21T13C	C2021	10	13.33675600	10	13.945+13	26	40.48	19.31wJET248F52
K21T13C	C2021	10	13.34700600	10	08.026+13	32	34.77	19.28wJET248F52
K21T13C	C2021	10	13.43721200	09	15.948+14	24	04.55	19.10GVET248F51
K21T13C	KC2021	10	13.75454900	07	07.37	+17	19 15.5	19.4 GVET248587
K21T13C	KC2021	10	13.75529800	07	06.98	+17	19 40.4	19.3 GVET248587
K21T13C	KC2021	10	13.75604700	07	06.61	+17	20 05.1	19.2 GVET248587
K21T13C	KC2021	10	13.79881	00	06 47.57	+17	43 54.3	19.1 GXET248Z41
K21T13C	bC2021	10	13.80169400	06	42.37	+17	45 24.0	19.5 GVET248L01
K21T13C	bC2021	10	13.80288900	06	41.76	+17	46 03.6	19.6 GVET248L01
K21T13C	bC2021	10	13.80408300	06	41.12	+17	46 43.7	19.5 GVET248L01
K21T13C	KC2021	10	13.80502	00	06 44.39	+17	47 20.4	19.2 GXET248Z41
K21T13C	KC2021	10	13.80511	00	06 44.35	+17	47 23.3	19.1 GXET248Z41
K21T13C	bC2021	10	13.80527600	06	40.46	+17	47 22.5	19.7 GVET248L01
K21T13C	bC2021	10	13.80647100	06	39.84	+17	48 02.1	19.5 GVET248L01
K21T13C	KC2021	10	13.82562	00	06 30.66	+17	58 30.7	19.6 GVET248G15
K21T13C	KC2021	10	13.82905900	06	28.52	+18	00 29.3	19.1 GVET248I04
K21T13C	KC2021	10	13.83124	00	06 27.63	+18	01 36.8	18.9 GVET248G15
K21T13C	KC2021	10	13.83714900	06	24.22	+18	04 55.5	19.3 GVET248I04
K21T13C	KC2021	10	13.83884	00	06 22.89	+18	05 43.5	18.7 RVET248K51
K21T13C	KC2021	10	13.84013	00	06 22.22	+18	06 25.5	18.8 RVET248K51
K21T13C	KC2021	10	13.84119300	06	22.06	+18	07 07.5	19.5 GVET248I04
K21T13C	KC2021	10	13.84143	00	06 21.52	+18	07 07.9	18.4 RVET248K51
K21T13C	KC2021	10	13.84506	00	06 23.00	+18	09 26.3	19.4 GXET248J57
K21T13C	KC2021	10	13.85514900	06	14.75	+18	14 37.9	19.4 GVET248Z03
K21T13C	KC2021	10	13.85521200	06	13.68	+18	14 40.6	XET248595
K21T13C	KC2021	10	13.86087600	06	10.61	+18	17 45.5	19.2 GXET248595
K21T13C	KC2021	10	13.86350	00	06 13.09	+18	19 30.4	XET248J57
K21T13C	KC2021	10	13.86828800	06	07.66	+18	21 47.9	VET248Z03
K21T13C	KC2021	10	13.87006600	06	05.67	+18	22 45.5	XET248595
K21T13C	KC2021	10	13.87223300	06	07.94	+18	24 00.1	19.5 GXET248958
K21T13C	KC2021	10	13.87596	00	06 03.44	+18	26 05.1	19.1 GXET248K78
K21T13C	KC2021	10	13.87692800	06	01.96	+18	26 28.4	19.1 GXET248595
K21T13C	KC2021	10	13.87699000	06	05.39	+18	26 35.7	19.1 GXET248958
K21T13C	KC2021	10	13.88175900	06	02.81	+18	29 11.7	19.4 GXET248958
K21T13C	KC2021	10	13.88376	00	05 59.11	+18	30 18.1	19.2 GXET248K78
K21T13C	KC2021	10	13.88579900	05	58.14	+18	31 17.8	18.9 GVET248Z03
K21T13C	KC2021	10	13.89057	00	05 55.49	+18	33 59.9	19.3 GXET248K78

### Observer details:

**104 San Marcello Pistoiese.** Observers P. Bacci, M. Maestripieri. Measurers P. Bacci, L. Tesi, G. Fagioli. 0.60-m reflector + CCD.  
**203 GiaGa Observatory.** Observers S. Foglia, G. Galli. Measurer G. Galli. 0.36-m f/5.76 Schmidt-Cassegrain + CCD.  
**587 Sormano.** Observers E. Colzani, A. Fumagalli. Measurer P. Sicoli. 0.5-m f/6.8 reflector + CCD.  
**595 Farra d'Isonzo.** Observers F. Bressan, E. Pettarin. Measurer E. Pettarin. 0.61-m f/4.5 reflector + CCD.  
**958 Observatoire de Dax.** Observers P. Dupouy, J. B. de Vanssay. Measurer P. Dupouy. 0.43-m f/2.7 reflector + CCD.  
**F51 Pan-STARRS 1, Haleakala.** Observers J. Bulger, K. Chambers, T. Lowe, A. Schultz, I. Smith. Measurers S. Chastel, M. Huber, Y. Ramanjooloo, R.

Wainscoat, R. Weryk. 1.8-m Ritchey-Chretien + CCD.  
 F52 Pan-STARRS 2, Haleakala. Observers J. Bulger, T. Lowe, A. Schultz, I. Smith. Measurers K. Chambers, S. Chastel, T. de Boer, J. Fairlamb, H. Gao, M. Huber, C.-C. Lin, E. Magnier, Y. Ramanjooloo, R. Wainscoat, R. Weryk. 1.8-m Ritchey-Chretien + CCD.  
 G15 Magroforte Observatory, Alessandria. Observer A. De Pieri. 0.25-m f/6.7 Schmidt-Cassegrain + CCD.  
 J57 Centro Astronomico Alto Turia, Valencia. Observer A. Fornas. Measurers A. Fornas, G. Fornas, E. Arce, V. Mas. 0.43-m f/6.8 reflector + CCD.  
 K51 Osservatorio del Celado, Castello Tesino. Observers G. Favero, R. Furgoni. Measurer R. Furgoni. 0.80-m f/4 reflector + CCD.  
 K78 Iota Scorpii Observatory, La Spezia. Observers G. Scarfi, L. Sannino.  
 L01 Visnjan Observatory, Tican. Observer K. Korlevic. 1.0-m f/2.9 reflector + CCD.  
 Z41 Irydeo Observatory, Camarma de Esteruelas. Observer F. Calvo. 0.30-m f/8 reflector + CCD.

Orbital elements:

2021 TC13 Earth MOID = 0.0282 AU  
 Epoch 2021 July 5.0 TT = JDT 2459400.5 Veres  
 M 301.82345 (2000.0) P Q  
 n 0.60183183 Peri. 357.29144 +0.96209387 -0.25806985  
 a 1.3893744 Node 18.40948 +0.25516980 +0.73772355  
 e 0.2608191 Incl. 16.21337 +0.09624842 +0.62383004  
 P 1.64 H 25.97 G 0.15 U 7

Residuals in seconds of arc

211013 F52	0.1-	0.1+	211013 L01	0.2-	0.1-	211013 595	0.2-	0.1+
211013 F52	0.1+	0.2-	211013 L01	0.1+	0.3-	211013 J57	0.3+	0.1+
211013 F52	0.1-	0.0	211013 G15	0.2+	1.6-	211013 203	0.0	0.0
211013 F51	0.0	0.2+	211013 104	0.4-	0.0	211013 595	0.4+	0.2+
211013 587	0.1-	0.4-	211013 G15	0.3-	0.4-	211013 958	0.0	0.2-
211013 587	0.3-	0.2-	211013 104	0.2+	0.4+	211013 K78	0.7+	0.9+
211013 587	0.2-	0.5-	211013 K51	0.2-	0.7+	211013 595	0.7+	0.5-
211013 Z41	0.1-	0.5-	211013 K51	0.1+	0.4+	211013 958	0.3+	0.0
211013 L01	0.0	0.4-	211013 104	0.5+	0.6-	211013 958	0.2+	0.3+
211013 L01	0.3+	0.2-	211013 K51	0.1+	0.1+	211013 K78	0.4-	0.1-
211013 L01	0.2+	0.5+	211013 J57	0.1+	0.9+	211013 203	0.3-	0.7-
211013 Z41	0.1+	0.0	211013 203	0.1-	0.2-	211013 K78	1.0+	0.2+
211013 Z41	0.2+	0.1-	211013 595	0.1-	0.3+			

Ephemeris:

2021 TC13 a,e,i = 1.39, 0.26, 16 q = 1.0270  
 Date TT R. A. (2000) Decl. Delta r Elong. Phase V  
 2021 09 13 03 06 31.1 -73 26 12 0.1555 1.0523 103.0 68.7 24.5  
 ...  
 2021 09 28 02 06 09.5 -65 54 31 0.08118 1.0320 109.4 66.3 22.9  
 ...  
 2021 10 06 01 08 58.0 -46 45 53 0.04395 1.0275 128.0 50.1 21.1  
 ...  
 2021 10 12 00 20 38.2 +00 04 27 0.02994 1.0272 166.0 13.6 19.2  
 2021 10 13 00 12 46.3 +10 10 45 0.03057 1.0274 165.1 14.5 19.3  
 2021 10 14 00 05 03.6 +19 34 13 0.03215 1.0277 159.3 20.1 19.6  
 ...  
 2021 10 20 23 23 23.9 +52 55 16 0.05383 1.0308 129.4 48.3 21.5  
 ...  
 2021 10 28 22 43 58.3 +66 23 07 0.09324 1.0390 116.8 58.6 23.0  
 ...  
 2021 11 12 22 21 41.0 +72 52 33 0.1699 1.0657 112.2 59.3 24.4

M. P. C. Staff (C) Copyright 2021 MPC M.P.E.C. 2021-T248

◀ [Read MPEC 2021-T247](#) ▶ [Read MPEC 2021-T249](#)

Display  Clear

Enter an MPEC number in one of the following forms:

- 1997-B01 (the full form)
- J97B01 (the packed version of the full form)
- B01 (the abbreviated form)

[Home](#) [About](#) [Contact](#) [Privacy](#)



The Minor

Planet Center is hosted by the Center for Astrophysics | Harvard & Smithsonian.  
The Minor Planet Center is funded by NASA.