

space situational awareness

→ NEAR-EARTH OBJECTS

Close approach fact sheet for asteroid 2012 TC4

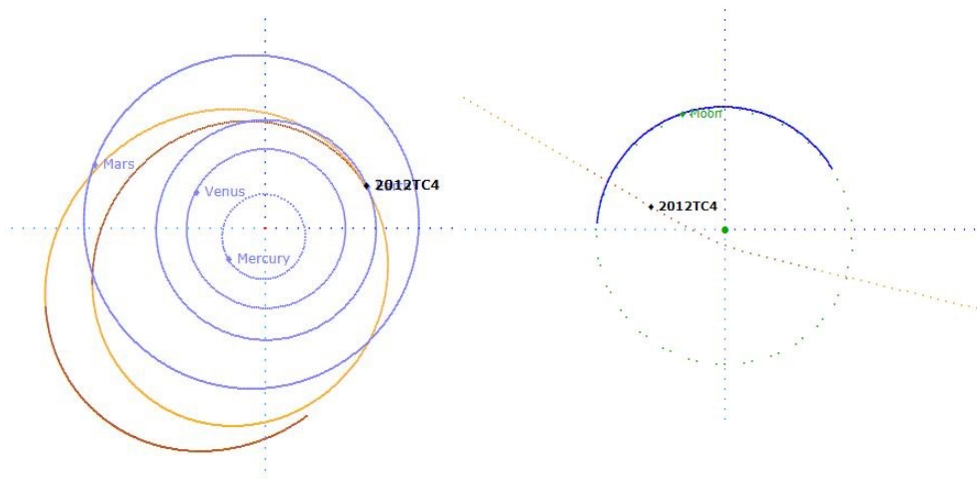
A small size asteroid will approach the Earth on 12 October 2017. The expected minimum distance is just above the geostationary ring, thus being a good target for radar observations.

Fly-by date	2017-10-12
Closest approach time	05:42:01 UTC (± 1 s)
Minimum distance from Earth surface	43 782 km, 0.114 Lunar Distances 0.000 293 au (± 5 km)
Fly-by speed	7.26 km/s
Size range	13-30 m

Orbit information

The fly-by causes a significant change in the orbit elements.

Date before and after fly-by	Orbital period years (days)	Aphelion Distance au	Perihelion distance au	Eccentricity	Inclination deg	Rotation Period hours
2017-09-12	1.67 (609)	1.878	0.934	0.336	0.857	0.204
2017-11-12	2.06 (753)	2.275	0.965	0.404	0.536	



Mitigation info

No mitigation actions needed for this object.

Discovery date	Time to closest approach	Impact Probability	Composition
2012-10-04	14 days	0	Not known

Observational information

An international campaign devoted to 2012 TC₄ has been organised. Our team together with ESO was the first one to re-observe it at the end of July.

Discovery site	Peak brightness	Observability	Visibility
Pan-STARRS 1, Haleakala	~12.7	Observable only with large amateur-level telescopes	Only before close approach. Best visibility at peak brightness from the South Pacific Ocean

Other information

Encounter peculiarities	Previous encounter	Next encounter
Very close encounter	2012-10-12	2050-10-18 (± 1 day)

Links

NEO information:

<http://neo.ssa.esa.int/search-for-asteroids?sum=1&des=2012TC4>

Orbit visualizer:

<https://goo.gl/dymDeg>

Priority list page:

<http://neo.ssa.esa.int/priority-list>

Close approaches page:

<http://neo.ssa.esa.int/close-approaches>

The 2012 TC₄ Observing Campaign:

<http://2012tc4.astro.umd.edu/>

