## space situational awareness

# → NEAR-EARTH OBJECTS

### Close approach fact sheet for asteroid 2010 WC9

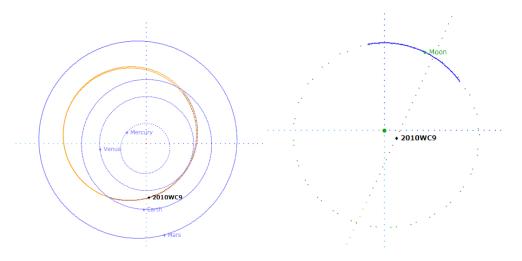
A small size asteroid will approach the Earth on 15 May 2018.

Fly-by date	2018-05-15
Closest approach time	22:03:51 UTC (± 2 s)
Minimum distance from Earth surface	196 573 km, 0.511 Lunar Distances 0.001 314 au (± 3 km)
Fly-by speed	12.8 km/s
Size range	50-120 m

#### **Orbit information**

As the approach distance to the Earth is not small the changes in the orbital elements are very limited.

Date before and after fly-by	Orbital period years (days)	Aphelion Distance au	Perihelion distance au	Eccentricity	Inclination deg	Rotation Period hours
2018-04-15	1.12 (409)	1.380	0.778	0.279	17.994	Not
2018-06-15	1.11 (404)	1.373	0.765	0.284	17.682	known



Discovery dat	e Time to closest approach	Impact Probability	Composition
2010-11-30	o days	0	Not known



#### **Observational information**

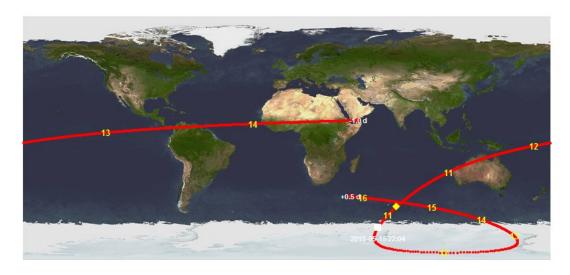
Discovery site	Peak brightness	Observability	Visibility
Mt. Lemmon Survey	~10.7	Observable only with large amateur-level telescopes	Observable worldwide before close approach, South and at low solar elongation after close approach

#### Other information

Encounter peculiarities	Previous encounter	Next encounter
None	2010-11-20	2030-11-22

#### Asteroid ground track

The asteroid ground track is provided below starting one day before the closest approach and extending for 1.5 days. The curve represents the movement of the sub-asteroid point over the Earth along the mentioned time interval. The track starts in Africa at magnitude 14 and progresses westwards, then it turns South towards close approach. It passes through its maximum brightness over the Southern Indian Ocean (yellow diamond), and reaches the minimum distance just a little later offshore Antarctica (white square), peaking at a magnitude slightly brighter than 11. It then starts to get farther and quickly fainter as it loops over Antarctica and then heads towards the South of Africa. Minimum distance and maximum brightness do not coincide in time and location due to the varying illumination of the asteroid.



#### Links

**NEO** information:

http://neo.ssa.esa.int/search-for-asteroids?sum=1&des=2010WC9

Orbit visualizer:

https://goo.gl/HPcSZn

Priority list page:

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

Close approaches page:

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



For further information please send an email to neocc@ssa.esa.int



