

→ CAFS FOR 2020 OY4

ESA's NEO Coordination Centre

Close approach fact sheet for asteroid 2020 OY4

A tiny asteroid will have a close approach with the Earth on 28 July.

Fly-by date	2020-07-28
Closest approach time	05:31 UTC (± 2 min)
Fly-by distance from Earth surface	35 170 km, 0.091 Lunar Distances (± 50 km)
Fly-by speed	12.4 km/s
Size range	2-5 m
Discovery date	2020-07-26
Discovery site	Mt. Lemmon Survey

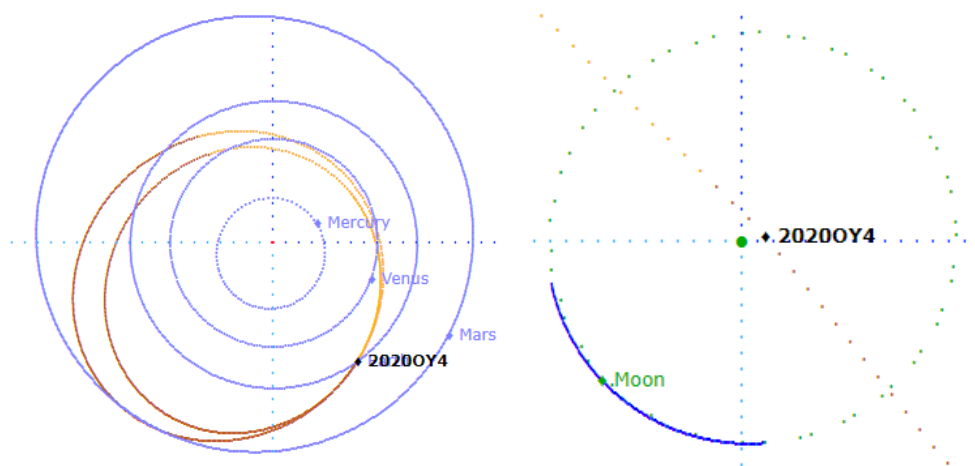
All error bars quoted in this table correspond to one standard deviation.

Orbit information

As the approach distance of the nominal trajectory to the Earth is relatively small, changes in its orbital elements due to the Earth gravity are noticeable.

Date before and after fly-by	Orbital period (years / days)	Aphelion distance au	Perihelion distance au	Eccentricity	Inclination deg
2020-06-28	1.19 / 436	1.561	0.688	0.389	2.112
2020-08-28	1.03 / 376	1.413	0.625	0.387	3.592

All orbital elements in this table are referred to the ecliptic at the epoch of J2000.0.



Physical and mitigation information

Days to closest approach	Cumulative impact probability	Composition	Rotation period (hours)
1	Not applicable	Not known	Not known

Observational information

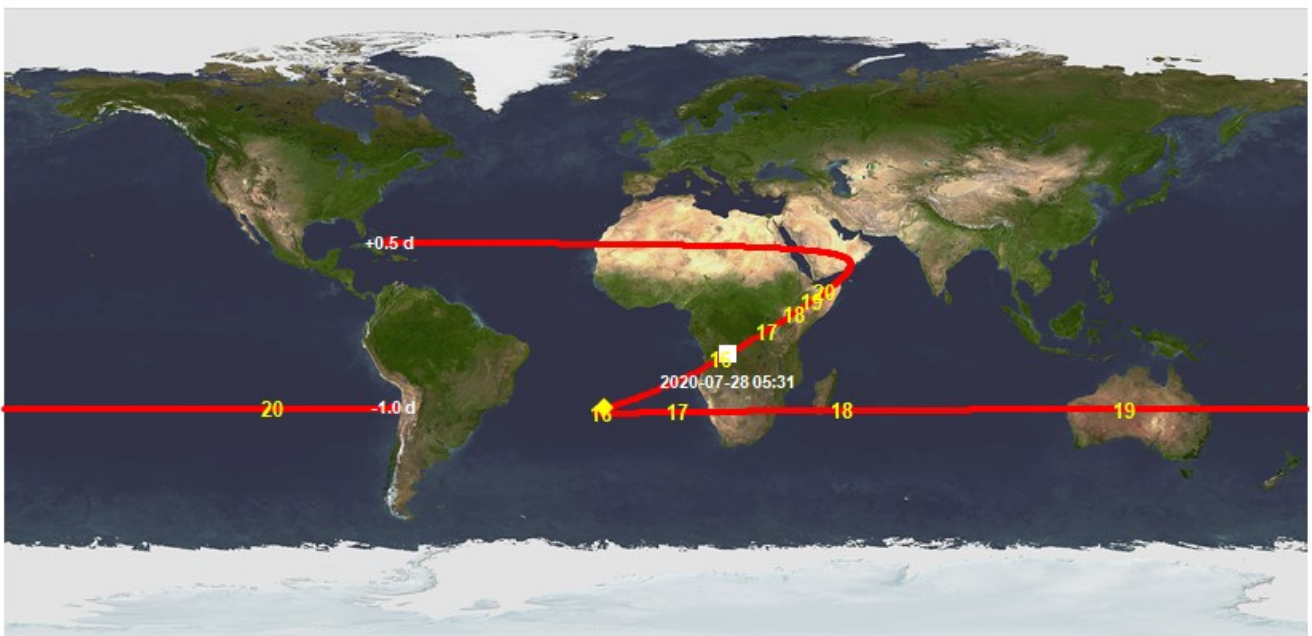
Peak brightness	Visual Observability	Geometric observability
~15	Too faint to observe visually.	Located at slightly Southern declinations before close approach. Unobservable due to low elongation after close approach.

Other information

Encounter peculiarities	Previous encounter	Next encounter
None	None	2021-07-26

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 asteroid is predominantly a Southern object during the incoming phase, while it gets brighter and closer to Earth. The formal time of maximum brightness (yellow diamond) is located over the Southern Atlantic. After that, the object rapidly heads to its closest approach (white square), and then recedes towards the Sun, becoming unobservable due to the low elongation, the high phase and consequently the extremely faint magnitude.



Links

NEO information:

<http://neo.ssa.esa.int/search-for-asteroids?sum=1&des=2020OY4>

Orbit visualiser:

<https://tinyurl.com/yyyyjzryo>

Close approaches page:

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

neo.ssa.esa.int

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

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