

# → CAFS FOR (52768) 1998 OR2

## ESA's NEO Coordination Centre

### Close approach fact sheet for asteroid (52768) 1998 OR2

A large asteroid will have a close approach with the Earth on 29 April.

Fly-by date	2020-04-29
Closest approach time	09:54:40.1 UTC ( $\pm 0.2$ s)
Fly-by distance from Earth surface	6 283 993 km, 16.348 Lunar Distances 0.042 au ( $\pm 2$ km)
Fly-by speed	8.7 km/s
Size range	1600-4000 m
Discovery date	1998-07-24
Discovery site	Haleakala

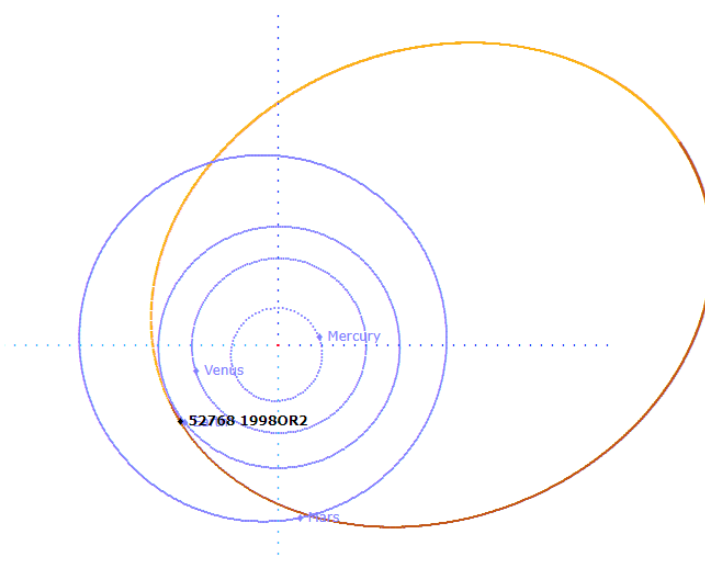
All error bars quoted in this table correspond to one standard deviation.

#### Orbit information

As the approach distance of the nominal trajectory to the Earth is not small, changes in its orbital elements due to the Earth gravity are very limited.

Date before and after fly-by	Orbital period in year / day	Aphelion distance in au	Perihelion distance in au	Eccentricity	Inclination in deg
2020-03-29	3.67 / 1341	3.743	1.018	0.572	5.877
2020-05-29	3.68 / 1345	3.751	1.018	0.573	5.866

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 in hour
7	Not applicable	Taxonomic type Xk or L	4.112

## Observational information

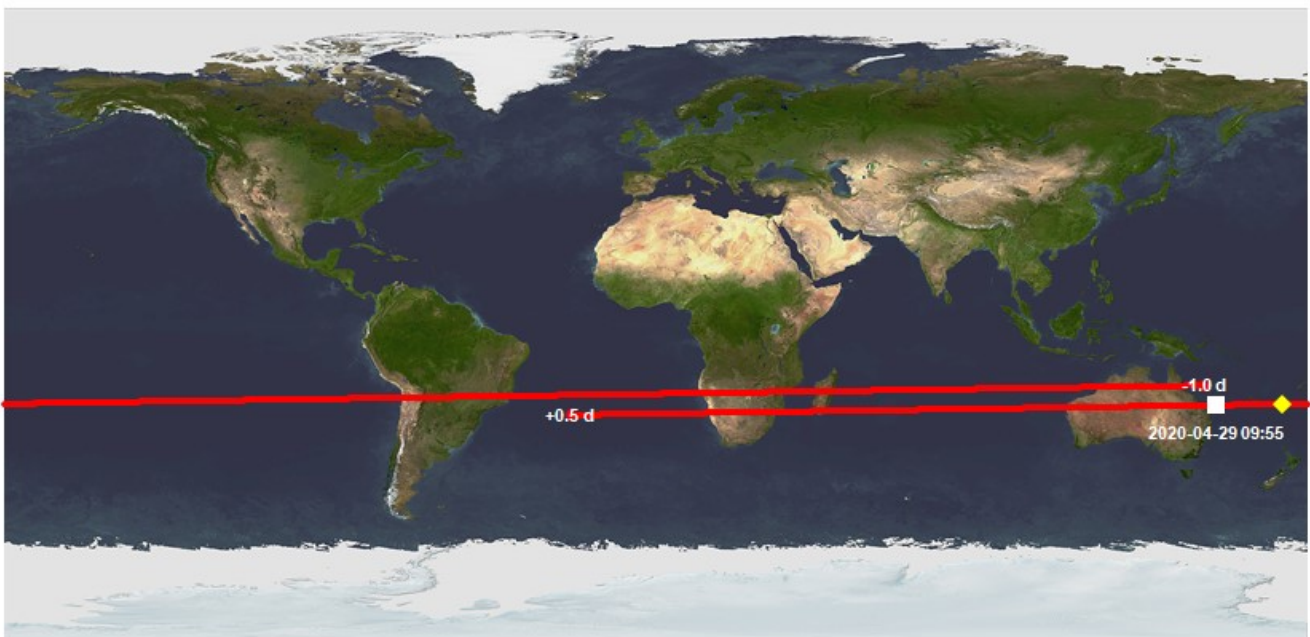
Peak brightness	Visual Observability	Geometric observability
~11	Visually observable with moderate sized amateur telescopes.	Located at slightly Southern declinations for the entire apparition. Easily observable from any tropical or Southern hemisphere location.

## Other information

Encounter peculiarities	Previous encounter	Next encounter
None	2009-03-12	2031-05-18

## 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. Due to the large distance of the fly-by, the track is basically a line wrapping around the Earth over Southern latitudes. At the time of close approach (white square), the object will be located over Oceania. The formal time of maximum brightness (yellow diamond) is located nearby, but the brightness of the object will remain nearly constant for days.



## Links

NEO information:

<http://neo.ssa.esa.int/search-for-asteroids?tab=summary&des=52768%201998OR2>

Orbit visualiser:

<https://tinyurl.com/ycglwfja>

Close approaches page:

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

[neo.ssa.esa.int](http://neo.ssa.esa.int)

For further information please send an email to [neocc@ssa.esa.int](mailto:neocc@ssa.esa.int)

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