

OBSERVERS

PUBLIC

DATA

IAWN

2014 HN199

First observed at Cerro Tololo-DECam on 2014-04-24.

(Discoverer will be defined when the object is numbered. See [this note](#) on how discoverers are determined.)

Orbit

Orbit type: Apollo

Near-Earth Object

One opposition object seen prior.

Interactive Orbit Sketch

Note: WebGL enabled browser required.

epoch	2019-04-27.0	semimajor axis (AU)	2.2144794	<a href="#">uncertainty</a>	6
epoch JD	2458600.5	mean anomaly (°)	171.04935	reference	MPO 328235
perihelion date	2017-10-02.09349	mean daily motion (°/day)	0.29908620	observations used	7
perihelion JD	2458028.59349	aphelion distance (AU)	3.662	oppositions	1
argument of perihelion (°)	268.87856	period (years)	3.3	arc length (days)	4
ascending node (°)	22.11760	P-vector [x]	0.35782335	first opposition used	2014
inclination (°)	2.90020	P-vector [y]	-0.83535463	last opposition used	2014
eccentricity	0.6534739	P-vector [z]	-0.41730695	residual rms (arc-secs)	0.11
perihelion distance (AU)	0.7673749	Q-vector [x]	0.93359496	<a href="#">perturbers coarse indicator</a>	M-v
Tisserand w.r.t. Jupiter	3.3	Q-vector [y]	0.32915407	<a href="#">perturbers precise indicator</a>	003Eh
ΔV w.r.t. Earth (km/sec)	7.2	Q-vector [z]	0.14162645	first observation date used	2014-04-24.0
		absolute magnitude	26.7	last observation date used	2014-04-27.0
		phase slope	0.15	computer name	MPCW

JD of orbit computation	2457067.161772
perihelion JD uncertainty (days)	1.3778E-02
argument of perihelion uncertainty (°)	3.6512E-02
ascending node uncertainty (°)	3.4712E-02
inclination uncertainty (°)	1.1910E-02
eccentricity uncertainty	1.7357E-04
perihelion distance uncertainty (AU)	1.4597E-04

Minimum Orbit Intersection Distances (in AU)  
for orbit epoch: 2458200.5, reference: MPO328235

Mercury	0.315906
Venus	0.0416483
Earth	0.0192372
Mars	0.0091989
Jupiter	1.56534
Saturn	5.45147
Uranus	14.9103
Neptune	26.3395

Observations

7 total observations over interval: 2014 04 24.00579 – 2014 04 27.98246

These data are available for [download](#) ([format description](#)).

Date (UT)	J2000 RA	J2000 Dec	Magn	<a href="#">Location</a>	<a href="#">Ref</a>
2014 04 24.00579	13 38 53.82	-16 12 26.7	22.7 V	W84 – Cerro Tololo-DECam	MPS 571056
2014 04 24.00894	13 38 53.30	-16 12 35.6		W84 – Cerro Tololo-DECam	MPS 571056
2014 04 24.01524	13 38 52.32	-16 12 53.0		W84 – Cerro Tololo-DECam	MPS 571056
2014 04 24.01842	13 38 51.81	-16 13 01.9		W84 – Cerro Tololo-DECam	MPS 571056
2014 04 27.97575	13 24 17.50	-20 40 13.3	21.9 V	W84 – Cerro Tololo-DECam	MPS 571056
2014 04 27.97907	13 24 16.28	-20 40 34.2		W84 – Cerro Tololo-DECam	MPS 571056
2014 04 27.98246	13 24 15.07	-20 40 55.7		W84 – Cerro Tololo-DECam	MPS 571056