

OBSERVERS

PUBLIC

DATA

IAWN

2014 HK197

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)	2.3356627	<u>uncertainty</u>	9
epoch JD	2458600.5	mean anomaly (°)	130.53599	reference	MPO 317870
perihelion date	2018-01-09.23903	mean daily motion (°/day)	0.27611420	observations used	9
perihelion JD	2458127.73903	aphelion distance (AU)	3.854	oppositions	1
argument of perihelion (°)	254.49018	period (years)	3.57	arc length (days)	1
ascending node (°)	31.52349	P-vector [x]	0.27349745	first opposition used	2014
inclination (°)	5.55862	P-vector [y]	-0.84120906	last opposition used	2014
eccentricity	0.6499200	P-vector [z]	-0.46644020	residual rms (arc-secs)	0.12
perihelion distance (AU)	0.8176687	Q-vector [x]	0.96053850	<u>perturbers coarse indicator</u>	M-v
Tisserand w.r.t. Jupiter	3.2	Q-vector [y]	0.26438918	<u>perturbers precise indicator</u>	003Eh
ΔV w.r.t. Earth (km/sec)	7.2	Q-vector [z]	0.08639533	first observation date used	2014-04-24.0
		absolute magnitude	26.9	last observation date used	2014-04-25.0
		phase slope	0.15	computer name	MPCW

JD of orbit computation	2457020.596567
perihelion JD uncertainty (days)	3.4532E-01
argument of perihelion uncertainty (°)	1.2841E-01
ascending node uncertainty (°)	4.9377E-03
inclination uncertainty (°)	1.0373E-01
eccentricity uncertainty	1.5822E-02
perihelion distance uncertainty (AU)	4.4890E-03

Minimum Orbit Intersection Distances (in AU)

for orbit epoch: 2458200.5, reference: MPO317870

Mercury	0.361097
Venus	0.102599
Earth	0.0259951
Mars	0.0047069
Jupiter	1.39913
Saturn	5.2754
Uranus	14.7972
Neptune	26.1495

Observations

9 total observations over interval: 2014 04 24.02320 – 2014 04 25.03489

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

Date (UT)	J2000 RA	J2000 Dec	Magn	<u>Location</u>	<u>Ref</u>
2014 04 24.02320	13 42 30.99	-11 49 48.8	23.2 V	W84 – Cerro Tololo-DECam	MPS 547823
2014 04 24.02634	13 42 30.59	-11 49 56.9		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 24.02950	13 42 30.21	-11 50 05.2		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 24.03268	13 42 29.80	-11 50 13.8		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 24.03594	13 42 29.37	-11 50 22.5		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 25.02533	13 40 30.71	-12 36 24.3	23.0 V	W84 – Cerro Tololo-DECam	MPS 547823
2014 04 25.02848	13 40 30.26	-12 36 34.4		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 25.03171	13 40 29.79	-12 36 44.2		W84 – Cerro Tololo-DECam	MPS 547823
2014 04 25.03489	13 40 29.32	-12 36 53.8		W84 – Cerro Tololo-DECam	MPS 547823