

OBSERVERS

DATA

IAWN

BETA

STATUS

2017 UL1

First observed at Mt. Lemmon Survey on 2017-10-16.

(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)	2.8630937	<a href="#">uncertainty</a>	8
epoch JD	2458600.5	mean anomaly (°)	121.38830	reference	MPO 421530
perihelion date	2017-09-07.34085	mean daily motion (°/day)	0.20344660	observations used	21
perihelion JD	2458003.84085	aphelion distance (AU)	4.816	oppositions	1
argument of perihelion (°)	137.13595	period (years)	4.84	arc length (days)	5
ascending node (°)	197.68589	P-vector [x]	0.90203573	first opposition used	2017
inclination (°)	9.69834	P-vector [y]	-0.42741438	last opposition used	2017
eccentricity	0.6819880	P-vector [z]	-0.06040268	residual rms (arc-secs)	0.43
perihelion distance (AU)	0.9104982	Q-vector [x]	0.42861677	<a href="#">perturbbers coarse indicator</a>	M-v
Tisserand w.r.t. Jupiter	2.9	Q-vector [y]	0.87027093	<a href="#">perturbbers precise indicator</a>	003Eh
ΔV w.r.t. Earth (km/sec)	7.6	Q-vector [z]	0.24272653	first observation date used	2017-10-16.0
		absolute magnitude	24.8	last observation date used	2017-10-21.0
		phase slope	0.15	computer name	MPCLINUX

JD of orbit computation	2458047.971614
perihelion JD uncertainty (days)	2.4794E-02
argument of perihelion uncertainty (°)	1.9251E-02
ascending node uncertainty (°)	9.2955E-03
inclination uncertainty (°)	3.4169E-02
eccentricity uncertainty	3.3905E-03
perihelion distance uncertainty (AU)	3.3317E-04

Minimum Orbit Intersection Distances (in AU)  
for orbit epoch: 2458600.5, reference: MPO421530

Mercury	0.53296
Venus	0.22526
Earth	0.01059
Mars	0.17992
Jupiter	0.88503
Saturn	4.61048
Uranus	13.5096
Neptune	25.5335

Observations

21 total observations over interval: 2017 10 16.38888 – 2017 10 21.34063

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

Date (UT)	J2000 RA	J2000 Dec	Magn	<a href="#">Location</a>	<a href="#">Ref</a>
2017 10 16.38888	04 04 13.09	+04 52 31.5	21.1 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.39408	04 04 11.83	+04 52 10.6	21.5 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.39925	04 04 10.61	+04 51 50.5	20.9 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.40442	04 04 09.39	+04 51 31.3	21.2 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.47865	04 03 51.87	+04 46 43.5	21.1 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.47942	04 03 51.69	+04 46 41.8	21.9 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.48019	04 03 51.52	+04 46 38.4	21.5 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.48094	04 03 51.30	+04 46 35.2	21.9 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.50777	04 03 45.10	+04 44 52.3	21.0 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.50852	04 03 44.89	+04 44 49.6	21.0 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.50928	04 03 44.78	+04 44 46.9	20.9 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 16.51003	04 03 44.67	+04 44 44.7	21.3 G	G96 – Mt. Lemmon Survey	MPS 826733
2017 10 18.40346	03 58 02.05	+02 59 47.9	21.1 G	I52 – Steward Observatory, Mt. Lemmon Station	MPS 826733
2017 10 18.40677	03 58 01.41	+02 59 38.5	21.0 G	I52 – Steward Observatory, Mt. Lemmon Station	MPS 826733
2017 10 18.41120	03 58 00.53	+02 59 26.1	21.3 G	I52 – Steward Observatory, Mt. Lemmon Station	MPS 826733
2017 10 19.48003	03 55 12.95	+02 11 30.6	21.2 R	291 – LPL/Spacewatch II	MPS 826733
2017 10 19.48523	03 55 12.13	+02 11 18.7	21.3 R	291 – LPL/Spacewatch II	MPS 826733
2017 10 19.49045	03 55 11.18	+02 11 04.5	20.7 R	291 – LPL/Spacewatch II	MPS 826733
2017 10 21.32335	03 51 06.07	+01 03 16.5	20.8 R	291 – LPL/Spacewatch II	MPS 828399
2017 10 21.33199	03 51 04.81	+01 02 59.6	21.0 R	291 – LPL/Spacewatch II	MPS 828399
2017 10 21.34063	03 51 03.51	+01 02 42.8	20.9 R	291 – LPL/Spacewatch II	MPS 828399