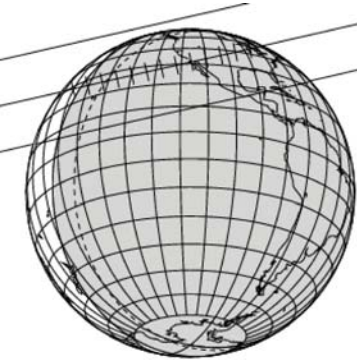


RECON: TNO occultation with 134340

Event between (134340) Pluto and star GA0680:34878053 with event index number of 148325

Geocentric closest approach at 2018/08/15 05:33:29 UTC

J2000 position of star is 19:22:10.5 -21:58:49
Equinox of date position of star is 19:23:16.4 -21:56:39
Stellar brightness G=13.0, use SENSEUP=32
Star is 95 degrees from the moon. Moon is 19% illuminated.
TNO apparent brightness V=14.5



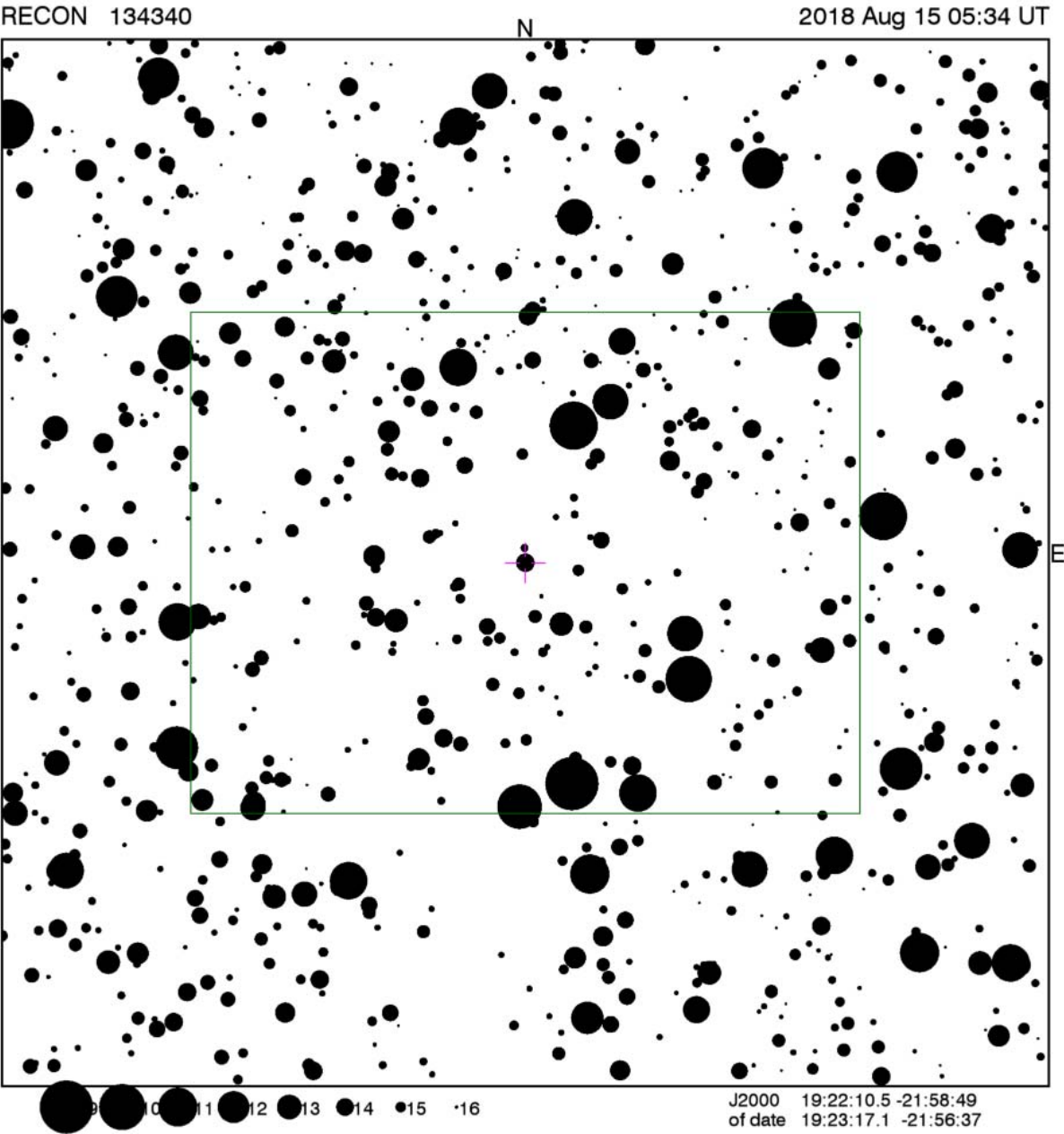
[\[RECON map\]](#)
TNO is 33.6 AU from the Sun and 32.8 AU from the Earth.
The TNO is moving 19.3 km/sec on the sky relative to the star, or, 2.9 arcsec/hr.
The 1-sigma error in the time of the event is 63 seconds.
The 1-sigma cross-track error in the shadow position is 1189 km.
The sky-plane scale is 23766.3 km/arcsec.

The TNO has an absolute magnitude Hv=-0.8
Diameter=8551.0 km assuming a 5% albedo -- 442.1 sec chord
Diameter=3490.9 km assuming a 30% albedo -- 180.5 sec chord
Dynamical classification is 3:2E

Star training set for 134340, (2018/08/15 05:33UT)

Object	RA	Dec	mag	sep	mel
Antares	16:30:33.1	-26:28:18	0.9	39.47	56
Nunki	18:56:25.1	-26:16:19	2.0	7.50	88
PPM 269651	19:21:45.0	-22:21:59	5.8	0.55	94
PPM 269691	19:23:22.3	-22:02:14	8.4	0.10	95
PPM 269692	19:23:22.4	-21:53:08	9.7	0.06	95
134340	19:23:17.1	-21:56:37	13.0		95

Positions are for equinox of date



This table contains the target star visibility for the RECON network. The observing range has been set to a maximum of 5.0 sigma about the mid-time. The median site spacing is 10.8 km RECON observability=0.9 and success probability=19.3%

Site	Site mid-time (UT)	Sun alt (deg)	Sky	Moon	Star alt (deg)	Star az (deg)	Target	Observing Time (UT)	X-track (km)
Penticton	05:32:32	-18.3	Dark	Down	18.4	176.7	Really Low	05:26:48 - 05:38:17	975
Oroville	05:32:32	-18.8	Dark	Down	19.0	176.8	Really Low	05:26:48 - 05:38:17	953
Tonasket	05:32:32	-19.0	Dark	Down	19.3	176.8	Really Low	05:26:48 - 05:38:17	945
Okanogan	05:32:33	-19.2	Dark	Down	19.6	176.6	Really Low	05:26:48 - 05:38:17	935
Brewster	05:32:34	-19.3	Dark	Down	19.9	176.4	Really Low	05:26:49 - 05:38:18	929
Manson/Chelan	05:32:36	-19.4	Dark	Down	20.0	176.1	Low	05:26:51 - 05:38:20	927
Entiat	05:32:36	-19.5	Dark	Down	20.3	176.0	Low	05:26:51 - 05:38:20	920
Wenatchee	05:32:36	-19.7	Dark	Down	20.5	175.9	Low	05:26:52 - 05:38:21	912
Ellensburg	05:32:37	-19.9	Dark	Down	20.9	175.7	Low	05:26:53 - 05:38:22	900
Yakima	05:32:38	-20.2	Dark	Down	21.3	175.7	Low	05:26:54 - 05:38:23	884
Toppenish/White Swan	05:32:38	-20.4	Dark	Down	21.5	175.8	Low	05:26:53 - 05:38:22	873
Goldendale	05:32:40	-20.7	Dark	Down	22.1	175.4	Low	05:26:55 - 05:38:24	858
The Dalles	05:32:41	-20.7	Dark	Down	22.3	175.0	Low	05:26:57 - 05:38:26	855
Pasco	05:32:33	-21.1	Dark	Down	21.7	177.1	Low	05:26:48 - 05:38:17	850
George/Umatilla	05:32:34	-21.2	Dark	Down	22.0	176.8	Low	05:26:49 - 05:38:18	840
PNWRO	05:32:32	-21.4	Dark	Down	22.0	177.3	Low	05:26:48 - 05:38:17	836
Maupin	05:32:41	-21.0	Dark	Down	22.7	175.1	Low	05:26:57 - 05:38:26	836

Madras/Culver	05:32:42	-21.4	Dark	Down	23.2	175.0	Low	05:26:57 - 05:38:26	814
Sisters	05:32:44	-21.5	Dark	Down	23.5	174.6	Low	05:26:59 - 05:38:28	807
Redmond	05:32:42	-21.7	Dark	Down	23.6	175.0	Low	05:26:58 - 05:38:27	800
Bend	05:32:43	-21.8	Dark	Down	23.8	174.8	Low	05:26:59 - 05:38:28	793
Oregon Observatory	05:32:44	-21.8	Dark	Down	24.0	174.7	Low	05:26:59 - 05:38:28	787
La Pine/Gilchrist	05:32:44	-22.0	Dark	Down	24.2	174.6	Low	05:27:00 - 05:38:29	780
North Lake	05:32:42	-22.6	Dark	Down	24.6	175.2	Low	05:26:58 - 05:38:27	751
Chiloquin	05:32:47	-22.6	Dark	Down	25.2	174.2	Low	05:27:02 - 05:38:31	736
Paisley	05:32:41	-23.2	Dark	Down	25.2	175.6	Low	05:26:56 - 05:38:25	721
Klamath Falls	05:32:47	-22.9	Dark	Down	25.6	174.3	Low	05:27:02 - 05:38:31	719
Tulelake	05:32:46	-23.3	Dark	Down	25.9	174.6	Low	05:27:01 - 05:38:30	702
Lakeview	05:32:41	-23.6	Dark	Down	25.7	175.7	Low	05:26:56 - 05:38:25	695
Cedarville	05:32:40	-24.2	Dark	Down	26.4	175.9	Low	05:26:56 - 05:38:25	662
Fall River/Burney	05:32:46	-24.0	Dark	Down	26.8	174.6	Low	05:27:02 - 05:38:31	658
Susanville	05:32:43	-24.8	Dark	Down	27.5	175.4	Low	05:26:59 - 05:38:28	616
Greenville	05:32:45	-24.9	Dark	Down	27.7	175.0	Low	05:27:00 - 05:38:29	607
Gimble	05:32:45	-24.9	Dark	Down	27.7	175.1	Low	05:27:00 - 05:38:29	605
Quincy	05:32:45	-25.0	Dark	Down	27.9	175.0	Low	05:27:01 - 05:38:30	597
Portola	05:32:43	-25.4	Dark	Down	28.1	175.5	Low	05:26:59 - 05:38:28	583
Reno	05:32:41	-25.9	Dark	Down	28.4	176.2	Low	05:26:56 - 05:38:25	559
Carson City	05:32:41	-26.2	Dark	Down	28.7	176.2	Low	05:26:56 - 05:38:25	540
Gardnerville	05:32:41	-26.4	Dark	Down	29.0	176.2	Low	05:26:56 - 05:38:25	526
Yerington	05:32:39	-26.6	Dark	Down	29.0	176.9	Low	05:26:54 - 05:38:23	519
Hawthorne	05:32:36	-27.3	Dark	Down	29.5	177.4	Low	05:26:52 - 05:38:21	485
Lee Vining	05:32:39	-27.4	Dark	Down	30.0	176.9	Low	05:26:55 - 05:38:24	464
Tonopah	05:32:31	-28.3	Dark	Down	30.0	178.9	Low	05:26:46 - 05:38:15	435
Bishop	05:32:36	-28.3	Dark	Down	30.6	177.6	Up	05:26:52 - 05:38:21	419
Lone Pine	05:32:36	-29.0	Dark	Down	31.4	178.0	Up	05:26:51 - 05:38:20	371
Beatty	05:32:29	-29.4	Dark	Down	31.1	179.4	Up	05:26:45 - 05:38:14	363
CPSLO	05:32:48	-28.6	Dark	Down	32.6	175.1	Up	05:27:04 - 05:38:33	344
Indian Springs	05:32:25	-30.2	Dark	Down	31.4	180.5	Up	05:26:41 - 05:38:10	323
Niwot	05:31:39	-31.6	Dark	Down	27.1	191.2	Low	05:25:54 - 05:37:23	287
Henderson	05:32:22	-31.0	Dark	Down	32.0	181.3	Up	05:26:37 - 05:38:06	279
Searchlight/Boulder City	05:32:22	-31.5	Dark	Down	32.5	181.3	Up	05:26:38 - 05:38:07	244
Wildwood	05:32:40	-30.6	Dark	Down	33.9	177.3	Up	05:26:55 - 05:38:24	235
Laughlin/Bullhead City	05:32:21	-31.9	Dark	Down	32.8	181.7	Up	05:26:36 - 05:38:05	220
Patrick	05:32:18	-32.0	Dark	Down	32.6	182.5	Up	05:26:33 - 05:38:02	219
Kingman/Dolan Springs	05:32:18	-32.1	Dark	Down	32.8	182.3	Up	05:26:34 - 05:38:03	210
Mohave Valley	05:32:21	-32.1	Dark	Down	33.1	181.7	Up	05:26:37 - 05:38:06	203
DCO	05:32:14	-32.6	Dark	Down	32.8	183.3	Up	05:26:30 - 05:37:59	186
Idyllwild	05:32:32	-31.9	Dark	Down	34.3	179.4	Up	05:26:47 - 05:38:16	177
Lake Havasu City	05:32:20	-32.5	Dark	Down	33.5	182.0	Up	05:26:36 - 05:38:05	174
Parker	05:32:20	-32.8	Dark	Down	33.9	182.0	Up	05:26:36 - 05:38:05	152
Blythe	05:32:22	-33.1	Dark	Down	34.4	181.7	Up	05:26:37 - 05:38:06	127
Calipatria	05:32:26	-33.0	Dark	Down	34.9	180.7	Up	05:26:42 - 05:38:11	116
Yuma	05:32:23	-33.8	Dark	Down	35.3	181.7	Up	05:26:38 - 05:38:07	70

Azimuth is measured in degrees eastward from north. North is at an azimuth of 0, due East is at an azimuth of 90 degrees, due South is 180, and due West is 270.

Do not use the listing below for the RECON CPC 1100 telescopes. This is provided for other non-team facilities.

Star training set for 134340, (2018/08/15 05:33UT)
 Object RA Dec mag sep mel
 Antares 16:29:24.4 -26:25:56 0.9 39.47 56
 Nunki 18:55:15.9 -26:17:49 2.0 7.50 88
 PPM 269651 19:20:38.2 -22:24:09 5.8 0.55 94
 PPM 269691 19:22:15.6 -22:04:26 8.4 0.10 95
 PPM 269692 19:22:15.8 -21:55:20 9.7 0.06 95
 134340 19:22:10.5 -21:58:49 13.0 95
 Positions are for J2000

Event circumstances last updated at 2018/06/05 16:19:36 UT

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[RECON](#)