

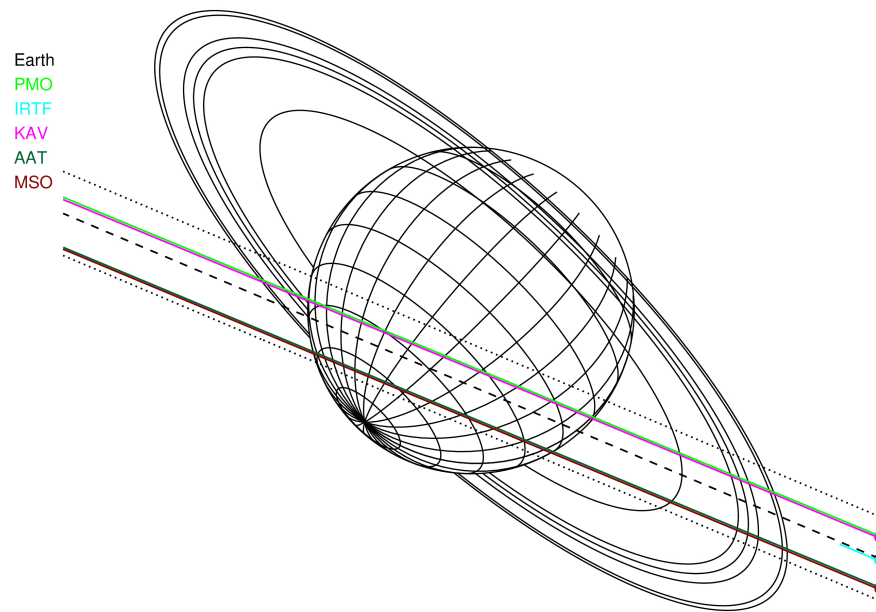
target : Neptune  
 target radius (km) : 24764.00  
 C/A epoch : 2026-10-18T15:17:20.950  
 Event type : PgtRgt  
 : Neptune occs: geocentric, topocentric  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 2545054343796547840  
 2Mass ID (if available) : 00093823-0030078

Neptune 2026-10-18T15:17:20 K14.18 G15.95 PgtRgt

ICRS Star Coord at Epoch: 00h 09m 38.23138s -00:30:08.38263s  
 RUWE (>1.4 is poor) : 0.96  
 K magnitude : 14.183  
 G magnitude : 15.949  
 RP magnitude : 15.372  
 BP magnitude : 16.351  
 DUPflag : 0  
 Distance (au) : 28.957  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : -21.88  
 Sun-Target sep (deg) : 157.08  
 Sun-Moon sep (deg) : 67.50  
 B (ring opening deg) : -19.11  
 PA of pole (deg) : -43.59  
 # a(km) ring



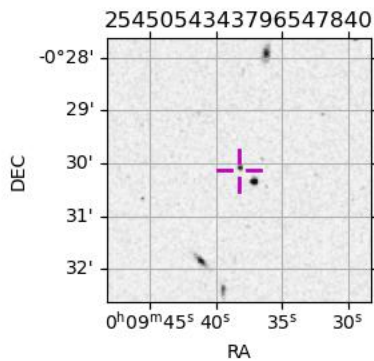
2026-10-18T15:17:20.9500 at: 00 09 38.2314 s: -00 30 08.383 C/A 0.502° PA 337.09 deg v\_sky -21.88 km/s D 28.96 AU  
 Credit: Styled after SORA/Lucky Star



- 1 42000.0 Galle
- 2 53200.0 LeVerrier
- 3 55200.0 Lassell
- 4 57200.0 Arago
- 5 61953.0 Galatea
- 6 62933.0 Adams

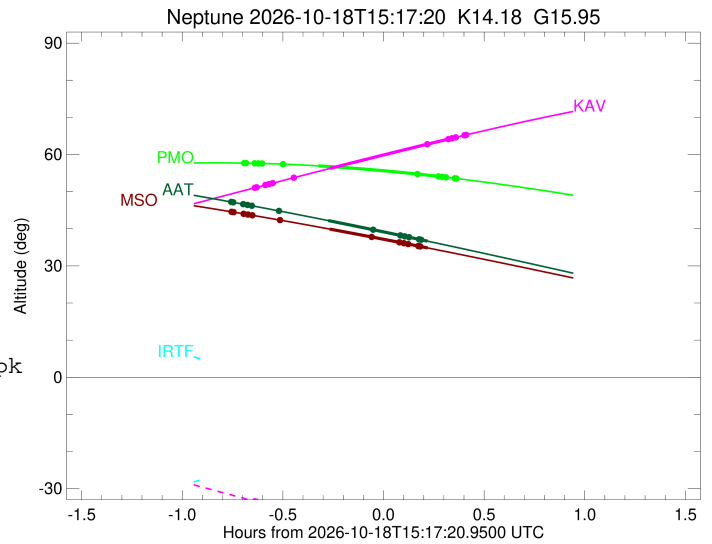
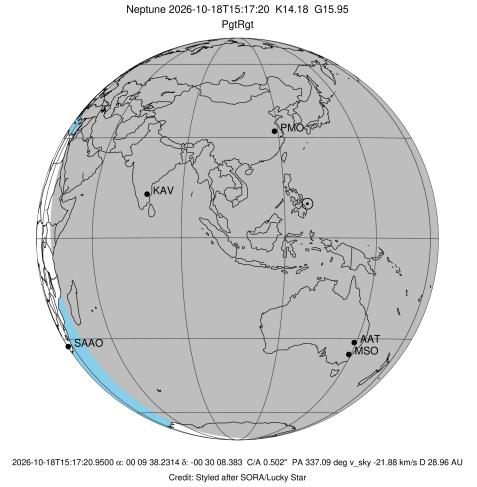
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1					PnnRnn
PAL	Palomar Mt (200")	33.4	243.1					PnnRnn
PMO	Purple Mtn Obs. Nanki	32.1	118.8	+ + + + +	+ +	+ + + + +	OCT 18 14:36 - OCT 18 15:39	PieRie
KPNO	Kitt Peak Natl Obs	32.0	248.4					PnnRnn
MCD	McDonald Obs. 2.7m	30.7	256.0					PnnRnn
TEN	Teide Obs./Tenerife	28.3	343.5					PnnRnn
IRTF	Mauna Kea/IRTF	19.8	204.5					PnnRnn
KAV	Kavalur Observatory	12.6	78.8	+ + + + +	+ +	+ + + + +	OCT 18 14:39 - OCT 18 15:42	PieRie
RIO	Rio de Janeiro	-22.9	316.8					PnnRnn
ESO	European Southern Obs	-29.3	289.3					PnnRnn
AAT	Siding Spring (AAT)	-31.3	149.1	+ + + + +	+ +		OCT 18 14:32 - OCT 18 15:30	PieRin
SAAO	So. Afr. Astro. Obs.	-32.4	20.8					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0	+ + + + +	+ +		OCT 18 14:32 - OCT 18 15:30	PieRin



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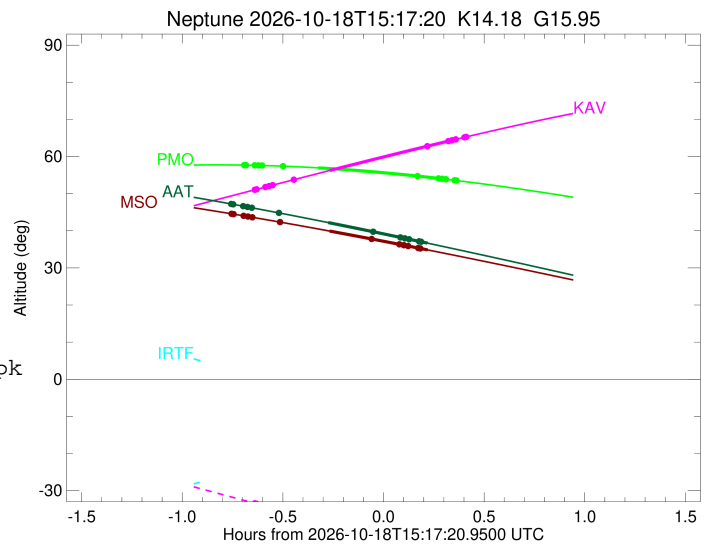
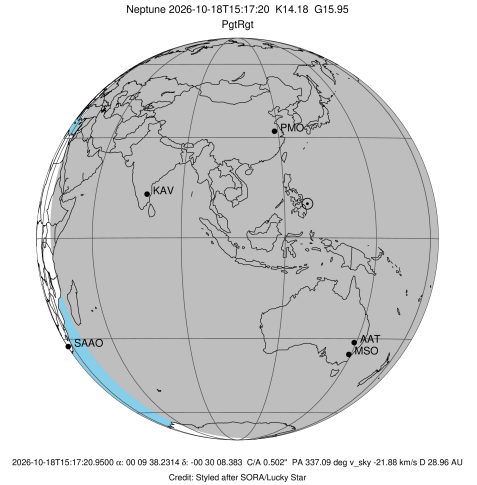
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2026-10-18T15:15:30.420
Event type            : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 2545054343796547840
2Mass ID (if available) : 00093823-0030078
ICRS Star Coord at Epoch: 00h 09m 38.23138s -00:30:08.38263s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 14.183
G magnitude           : 15.949
RP magnitude          : 15.372
BP magnitude          : 16.351
DUPflag               : 0
Distance (au)         : 28.957
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -21.88
Sun-Target sep (deg) : 157.08
Sun-Moon sep (deg)   : 68.33
B (ring opening deg) : -19.11
PA of pole (deg)     : -43.59
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.374
C/A sky separation (km) : 7844.4
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
earthstns_itr93_040916.bsp
earth_200101_990628_predict.bpc
pck00010.tpc
pck.urall1.tpc.Neptune
naif0012.tls
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
earth_flat_IAU.spk
    
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Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2026-10-18T14:36:03.274		57.69	-62.05	62933.00	-30.92		
Galatea	I	2026-10-18T14:36:34.993		57.68	-62.12	61953.00	-30.88		
Arago	I	2026-10-18T14:39:09.429		57.63	-62.48	57200.00	-30.67		
Lassell	I	2026-10-18T14:40:14.756		57.61	-62.63	55200.00	-30.56		
LeVerrier	I	2026-10-18T14:41:20.323		57.58	-62.78	53200.00	-30.44		
Galle	I	2026-10-18T14:47:33.770		57.40	-63.59	42000.00	-29.42		
Neptune	I	2026-10-18T14:57:54.314		56.95	-64.82	24763.91		2.45	2.54
Neptune	E	2026-10-18T15:33:06.060		54.18	-67.55	24745.74		-36.98	-37.93
Galle	E	2026-10-18T15:27:33.468	b	54.73	-67.29	42000.00	29.12		
LeVerrier	E	2026-10-18T15:33:49.514		54.11	-67.58	53200.00	30.29		
Lassell	E	2026-10-18T15:34:55.388		53.99	-67.62	55200.00	30.43		
Arago	E	2026-10-18T15:36:00.996		53.88	-67.66	57200.00	30.54		
Galatea	E	2026-10-18T15:38:36.023		53.60	-67.74	61953.00	30.77		
Adams	E	2026-10-18T15:39:07.854		53.54	-67.75	62933.00	30.81		

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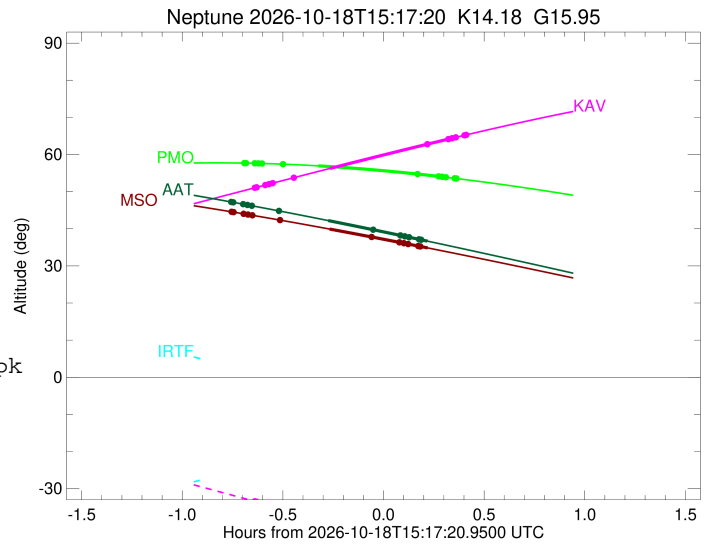
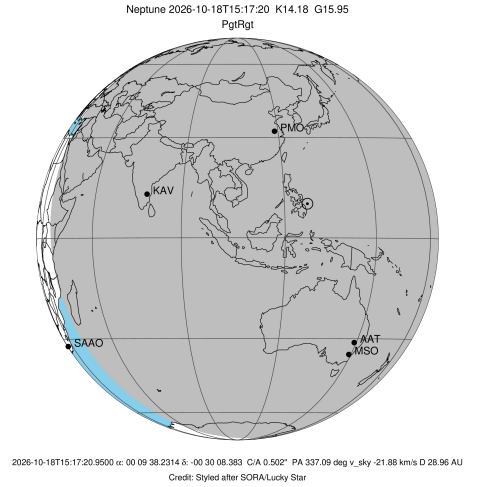
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2026-10-18T15:18:52.490
Event type           : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : KAV
Location              : Kavalur Observatory
Latitude (deg)       : 12.57556
E. Longitude (deg)   : 78.83167
Altitude (km)        : 0.722
Gaia source ID       : 2545054343796547840
2Mass ID (if available) : 00093823-0030078
ICRS Star Coord at Epoch: 00h 09m 38.23138s -00:30:08.38263s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 14.183
G magnitude           : 15.949
RP magnitude          : 15.372
BP magnitude          : 16.351
DUPflag              : 0
Distance (au)        : 28.957
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -21.88
Sun-Target sep (deg) : 157.08
Sun-Moon sep (deg)   : 68.13
B (ring opening deg) : -19.11
PA of pole (deg)     : -43.59
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.387
C/A sky separation (km) : 8129.4
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
earthstns_itr93_040916.bsp
earth_200101_990628_predict.bpc
pck00010.tpc
pck.urall11.tpc.Neptune
naif0012.tls
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
earth_flat_IAU.spk
    
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Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2026-10-18T14:39:12.410		51.10	-33.47	62933.00	-30.77		
Galatea	I	2026-10-18T14:39:44.281		51.22	-33.60	61953.00	-30.73		
Arago	I	2026-10-18T14:42:19.486		51.83	-34.23	57200.00	-30.51		
Lassell	I	2026-10-18T14:43:25.156		52.08	-34.50	55200.00	-30.40		
LeVerrier	I	2026-10-18T14:44:31.081		52.34	-34.76	53200.00	-30.27		
Galle	I	2026-10-18T14:50:46.983		53.80	-36.29	42000.00	-29.19		
Neptune	I	2026-10-18T15:01:21.157		56.24	-38.87	24763.95		1.80	1.86
Neptune	E	2026-10-18T15:36:22.370		64.08	-47.41	24745.19		-37.64	-38.59
Galle	E	2026-10-18T15:30:28.480	b	62.80	-45.97	42000.00	28.97		
LeVerrier	E	2026-10-18T15:36:45.731		64.17	-47.51	53200.00	30.25		
Lassell	E	2026-10-18T15:37:51.689		64.40	-47.78	55200.00	30.39		
Arago	E	2026-10-18T15:38:57.354		64.64	-48.04	57200.00	30.52		
Galatea	E	2026-10-18T15:41:32.422		65.19	-48.68	61953.00	30.77		
Adams	E	2026-10-18T15:42:04.246		65.30	-48.80	62933.00	30.82		

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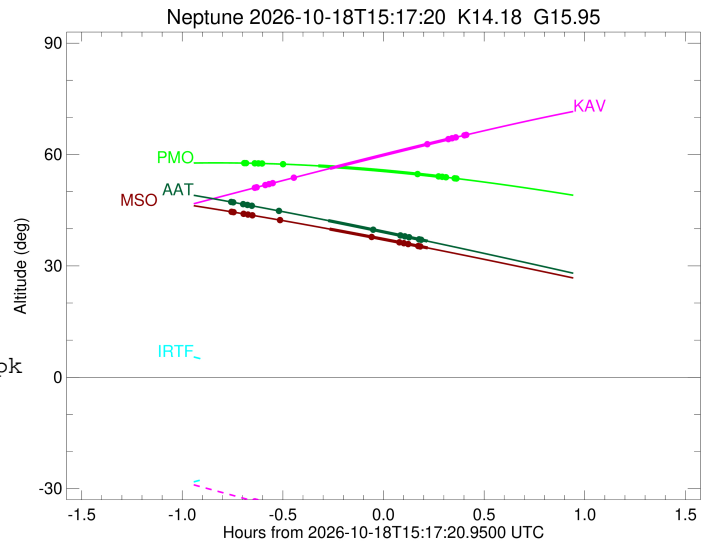
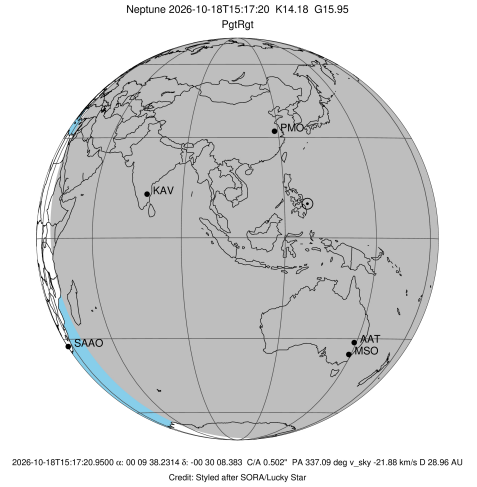
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2026-10-18T15:15:40.740
Event type           : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : AAT
Location              : Siding Spring (AAT)
Latitude (deg)       : -31.27703
E. Longitude (deg)   : 149.06608
Altitude (km)        : 1.164
Gaia source ID       : 2545054343796547840
2Mass ID (if available) : 00093823-0030078
ICRS Star Coord at Epoch: 00h 09m 38.23138s -00:30:08.38263s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 14.183
G magnitude           : 15.949
RP magnitude         : 15.372
BP magnitude         : 16.351
DUPflag              : 0
Distance (au)        : 28.957
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -21.88
Sun-Target sep (deg) : 157.08
Sun-Moon sep (deg)   : 68.14
B (ring opening deg) : -19.11
PA of pole (deg)     : -43.59
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.713
C/A sky separation (km) : 14976.6
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
earthstns_itr93_040916.bsp
earth_200101_990628_predict.bpc
pck00010.tpc
pck.urall11.tpc.Neptune
naif0012.tls
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
earth_flat_IAU.spk
    
```



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2026-10-18T14:32:09.751		47.19	-47.83	62933.00	-27.56		
Galatea	I	2026-10-18T14:32:45.413		47.09	-47.80	61953.00	-27.40		
Arago	I	2026-10-18T14:35:41.547		46.60	-47.62	57200.00	-26.53		
Lassell	I	2026-10-18T14:36:57.554		46.39	-47.54	55200.00	-26.09		
LeVerrier	I	2026-10-18T14:38:14.958		46.17	-47.45	53200.00	-25.58		
Galle	I	2026-10-18T14:46:12.129		44.81	-46.88	42000.00	-20.80		
Neptune	I	2026-10-18T15:00:50.902		42.21	-45.63	24760.48		-15.32	-15.83
Neptune	E	2026-10-18T15:30:29.661		36.67	-42.41	24731.47		-53.45	-54.38
Galle	E	2026-10-18T15:14:38.919	b	39.67	-44.24	42000.00	20.81		
LeVerrier	E	2026-10-18T15:22:39.879	b	38.16	-43.35	53200.00	25.26		
Lassell	E	2026-10-18T15:23:58.254	b	37.92	-43.19	55200.00	25.77		
Arago	E	2026-10-18T15:25:15.198	b	37.67	-43.04	57200.00	26.21		
Galatea	E	2026-10-18T15:28:13.371	b	37.10	-42.69	61953.00	27.11		
Adams	E	2026-10-18T15:28:49.419	b	36.99	-42.62	62933.00	27.26		

```

target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2026-10-18T15:15:54.510
Event type            : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code         : MSO
Location               : Mt. Stromlo Observatory
Latitude (deg)        : -35.32000
E. Longitude (deg)    : 149.00833
Altitude (km)         : 0.770
Gaia source ID        : 2545054343796547840
2Mass ID (if available) : 00093823-0030078
ICRS Star Coord at Epoch: 00h 09m 38.23138s -00:30:08.38263s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 14.183
G magnitude           : 15.949
RP magnitude          : 15.372
BP magnitude          : 16.351
DUPflag               : 0
Distance (au)         : 28.957
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -21.88
Sun-Target sep (deg) : 157.08
Sun-Moon sep (deg)   : 68.10
B (ring opening deg) : -19.11
PA of pole (deg)     : -43.59
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.726
C/A sky separation (km) : 15257.9
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
earthstns_itr93_040916.bsp
earth_200101_990628_predict.bpc
pck00010.tpc
pck.urall11.tpc.Neptune
naif0012.tls
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
earth_flat_IAU.spk
    
```



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2026-10-18T14:32:15.516		44.54	-43.95	62933.00	-27.35		
Galatea	I	2026-10-18T14:32:51.458		44.45	-43.92	61953.00	-27.19		
Arago	I	2026-10-18T14:35:49.145		44.00	-43.76	57200.00	-26.28		
Lassell	I	2026-10-18T14:37:05.929		43.81	-43.69	55200.00	-25.81		
LeVerrier	I	2026-10-18T14:38:24.209		43.61	-43.61	53200.00	-25.28		
Galle	I	2026-10-18T14:46:30.067		42.34	-43.09	42000.00	-20.23		
Neptune	I	2026-10-18T15:01:13.980		39.93	-41.96	24760.12		-16.11	-16.64
Neptune	E	2026-10-18T15:30:34.051		34.84	-39.08	24730.90		-54.13	-55.05
Galle	E	2026-10-18T15:14:13.277	b	37.72	-40.79	42000.00	20.26		
LeVerrier	E	2026-10-18T15:22:22.376	b	36.30	-39.97	53200.00	24.98		
Lassell	E	2026-10-18T15:23:41.604	b	36.06	-39.83	55200.00	25.50		
Arago	E	2026-10-18T15:24:59.316	b	35.83	-39.69	57200.00	25.97		
Galatea	E	2026-10-18T15:27:59.040	b	35.30	-39.37	61953.00	26.89		
Adams	E	2026-10-18T15:28:35.369	b	35.19	-39.30	62933.00	27.06		