

target : Neptune
 target radius (km) : 24764.00
 C/A epoch : 2035-08-26T10:06:00.860
 Event type : PgtRgt
 : Neptune occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 2566530554665743232
 2Mass ID (if available) : 01310274+0741173

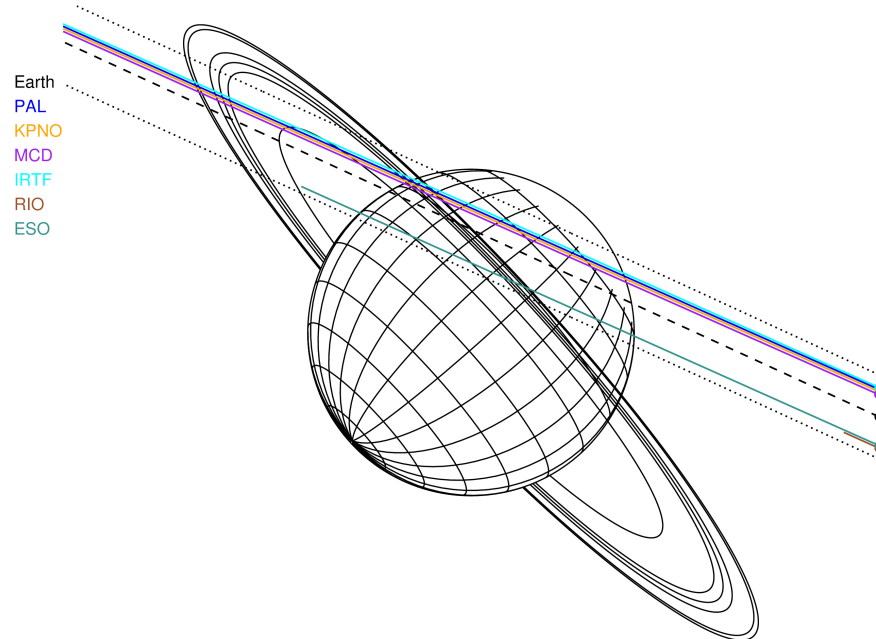
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
 RUWE (>1.4 is poor) : 0.99
 K magnitude : 13.205
 G magnitude : 16.625
 RP magnitude : 15.510
 BP magnitude : 17.896
 DUPflag : 0
 Distance (au) : 29.194
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -13.21
 Sun-Target sep (deg) : 128.61
 Sun-Moon sep (deg) : 39.24
 B (ring opening deg) : -10.20
 PA of pole (deg) : -47.58



2035-08-26T10:06:00.8600 α: 01 31 02.7002 s: +07 41 16.796 C/A 0.672° PA 155.31 deg v_sky -13.21 km/s D 29.19 AU
 Credit: Styled after SORA/Lucky Star

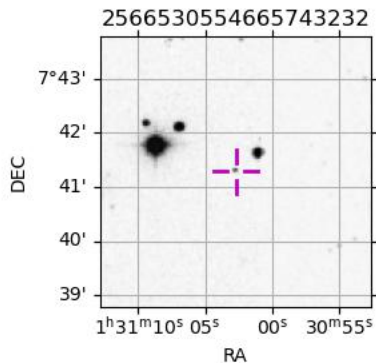
#	a(km)	ring
1	42000.0	Galle
2	53200.0	LeVerrier
3	55200.0	Lassell
4	57200.0	Arago
5	61953.0	Galatea
6	62933.0	Adams

Neptune 2035-08-26T10:06:00 K13.21 G16.63 PgtRgt



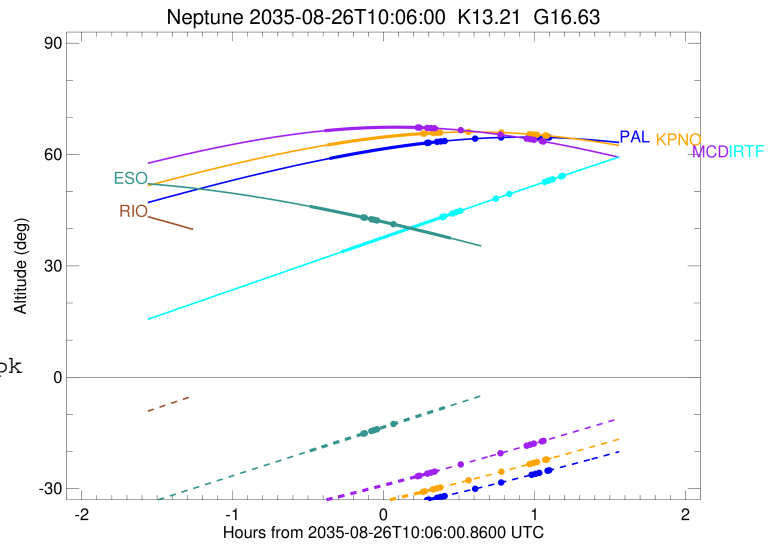
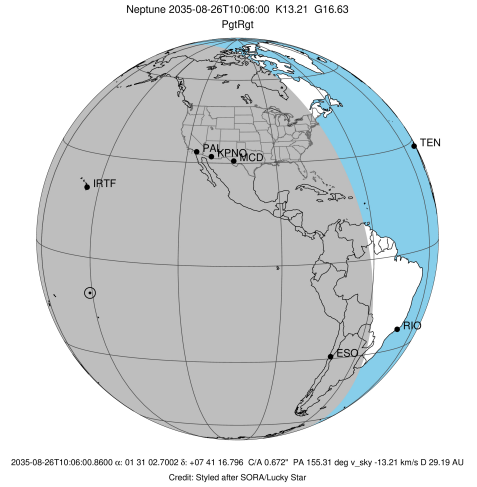
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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	+	+	+	AUG 26 09:44 - AUG 26 11:11	PieRie
PMO	Purple Mtn Obs. Nanki	32.1	118.8					PnnRnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+	+	+	AUG 26 09:43 - AUG 26 11:10	PieRie
MCD	McDonald Obs. 2.7m	30.7	256.0	+	+	+	AUG 26 09:42 - AUG 26 11:08	PieRie
TEN	Teide Obs./Tenerife	28.3	343.5					PnnRnn
IRTF	Mauna Kea/IRTF	19.8	204.5	+	+	+	AUG 26 09:49 - AUG 26 11:16	PieRie
KAV	Kavalur Observatory	12.6	78.8					PnnRnn
RIO	Rio de Janeiro	-22.9	316.8					PnnRnn
ESO	European Southern Obs	-29.3	289.3		+	+	AUG 26 09:36 - AUG 26 10:32	PieRnn
AAT	Siding Spring (AAT)	-31.3	149.1					PnnRnn
SAAO	So. Afr. Astro. Obs.	-32.4	20.8					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



```

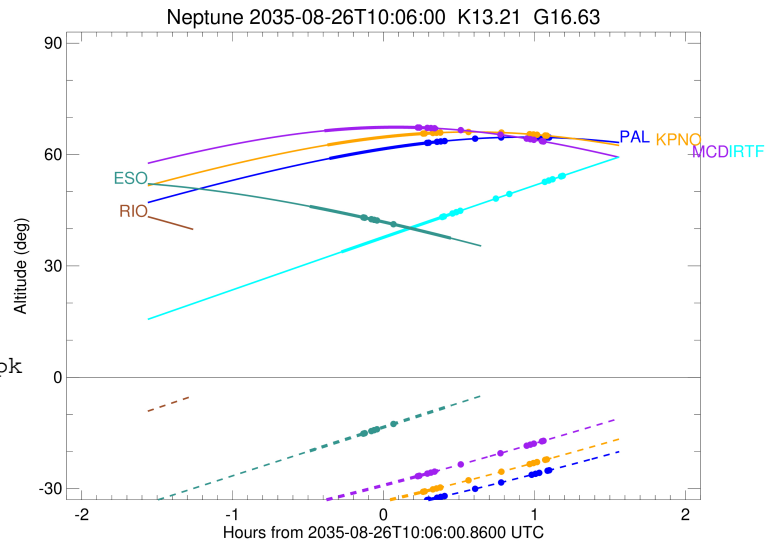
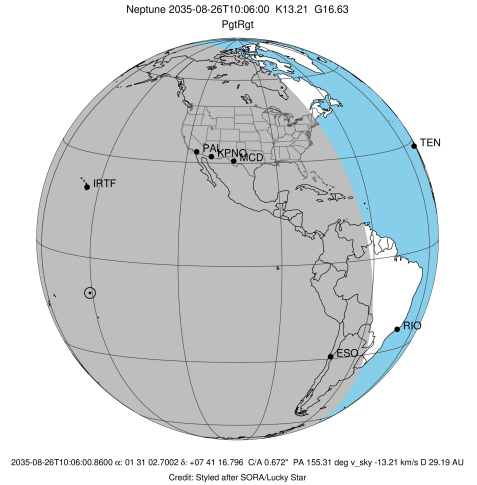
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2035-08-26T10:06:19.420
Event type            : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code         : PAL
Location               : Palomar Mt (200")
Latitude (deg)        : 33.35622
E. Longitude (deg)    : 243.13601
Altitude (km)         : 1.706
Gaia source ID        : 2566530554665743232
2Mass ID (if available) : 01310274+0741173
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
RUWE (>1.4 is poor)  : 0.99
K magnitude           : 13.205
G magnitude           : 16.625
RP magnitude          : 15.510
BP magnitude          : 17.896
DUPflag               : 0
Distance (au)         : 29.194
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -13.21
Sun-Target sep (deg)  : 128.61
Sun-Moon sep (deg)    : 39.86
B (ring opening deg) : -10.20
PA of pole (deg)      : -47.58
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.816
C/A sky separation (km) : 17269.9
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.urall1.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	2035-08-26T10:22:23.253	b	63.06	-33.21	62933.00	-25.72		
Galatea	I	2035-08-26T10:23:01.561	b	63.11	-33.12	61953.00	-25.44		
Arago	I	2035-08-26T10:26:14.423	b	63.35	-32.62	57200.00	-23.79		
Lassell	I	2035-08-26T10:27:40.037	b	63.45	-32.40	55200.01	-22.92		
LeVerrier	I	2035-08-26T10:29:09.213		63.55	-32.17	53200.01	-21.92		
Galle	I	2035-08-26T10:40:20.658		64.19	-30.39	42009.07	-10.09		
Neptune	I	2035-08-26T09:44:30.071		58.93	-38.52	24752.73		65.72	66.44
Neptune	E	2035-08-26T10:28:08.149		63.49	-32.33	24762.38		20.28	20.93
Galle	E	2035-08-26T10:53:09.140		64.60	-28.28	42000.00	10.06		
LeVerrier	E	2035-08-26T11:04:22.063		64.68	-26.37	53200.00	21.84		
Lassell	E	2035-08-26T11:05:51.582		64.67	-26.11	55200.00	22.83		
Arago	E	2035-08-26T11:07:17.565		64.66	-25.86	57200.00	23.68		
Galatea	E	2035-08-26T11:10:31.405		64.61	-25.30	61953.00	25.30		
Adams	E	2035-08-26T11:11:09.932		64.60	-25.19	62933.00	25.57		

```

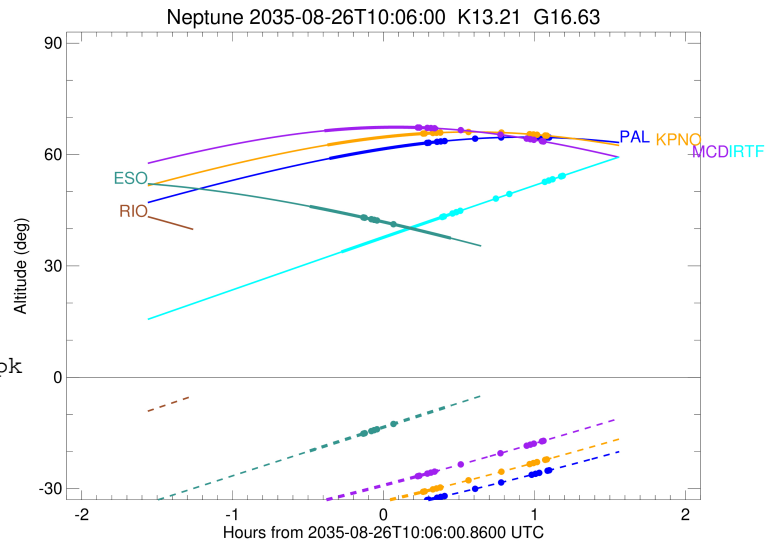
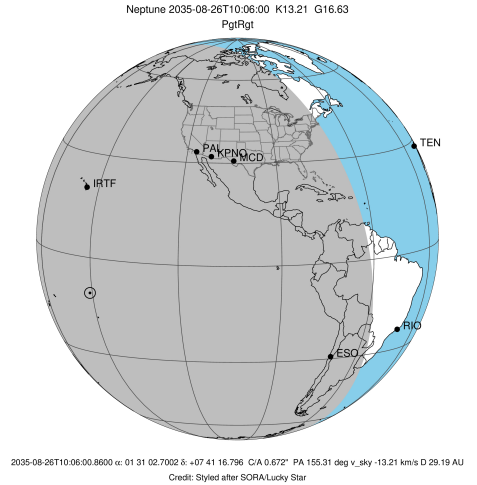
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2035-08-26T10:05:52.580
Event type            : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : KPNO
Location              : Kitt Peak Natl Obs
Latitude (deg)       : 31.96333
E. Longitude (deg)   : 248.40000
Altitude (km)        : 2.120
Gaia source ID       : 2566530554665743232
2Mass ID (if available) : 01310274+0741173
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 13.205
G magnitude           : 16.625
RP magnitude          : 15.510
BP magnitude          : 17.896
DUPflag              : 0
Distance (au)        : 29.194
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : -13.21
Sun-Target sep (deg) : 128.61
Sun-Moon sep (deg)   : 39.82
B (ring opening deg) : -10.20
PA of pole (deg)     : -47.58
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.800
C/A sky separation (km) : 16940.5
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	2035-08-26T10:20:50.917	b	65.61	-31.00	62933.00	-26.09		
Galatea	I	2035-08-26T10:21:28.679	b	65.64	-30.90	61953.00	-25.81		
Arago	I	2035-08-26T10:24:38.347	b	65.77	-30.37	57200.00	-24.24		
Lassell	I	2035-08-26T10:26:02.240	b	65.82	-30.13	55200.01	-23.42		
LeVerrier	I	2035-08-26T10:27:29.360	b	65.87	-29.89	53200.01	-22.47		
Galle	I	2035-08-26T10:38:00.153		66.07	-28.08	42002.66	-11.81		
Neptune	I	2035-08-26T09:43:41.482		62.57	-36.82	24752.91		64.77	65.51
Neptune	E	2035-08-26T10:28:03.268		65.88	-29.79	24762.54		19.24	19.86
Galle	E	2035-08-26T10:52:59.609		65.92	-25.42	42000.00	11.79		
LeVerrier	E	2035-08-26T11:03:32.316		65.52	-23.50	53200.00	22.37		
Lassell	E	2035-08-26T11:04:59.871		65.44	-23.23	55200.00	23.30		
Arago	E	2035-08-26T11:06:24.229		65.36	-22.97	57200.00	24.10		
Galatea	E	2035-08-26T11:09:35.116		65.18	-22.38	61953.00	25.63		
Adams	E	2035-08-26T11:10:13.149		65.14	-22.26	62933.00	25.90		

```

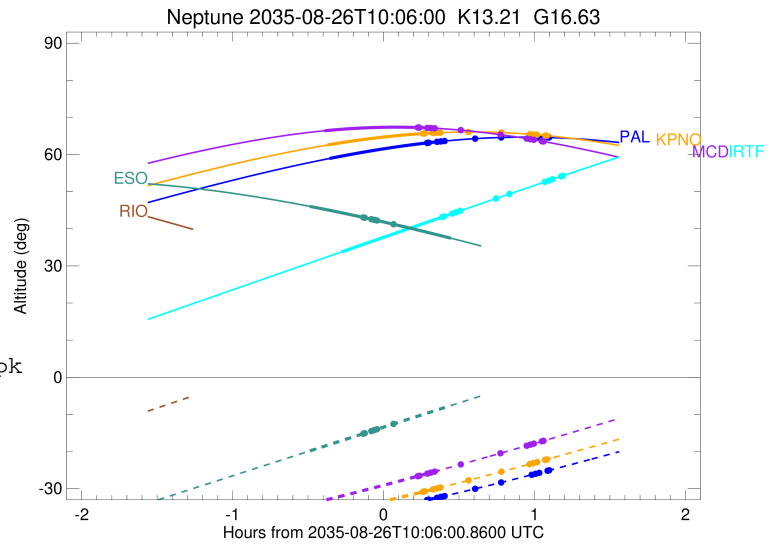
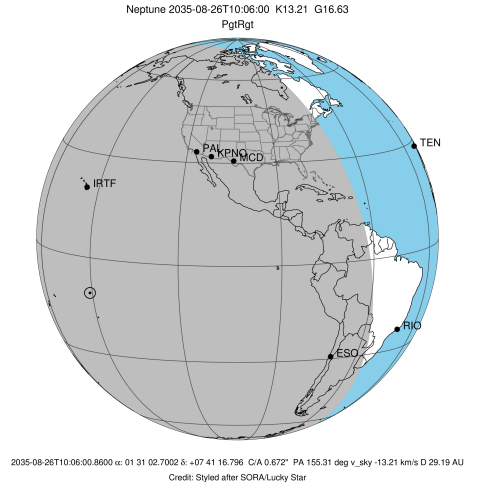
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2035-08-26T10:05:08.620
Event type            : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code         : MCD
Location              : McDonald Obs. 2.7m
Latitude (deg)        : 30.67158
E. Longitude (deg)    : 255.97844
Altitude (km)         : 2.075
Gaia source ID        : 2566530554665743232
2Mass ID (if available) : 01310274+0741173
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 13.205
G magnitude           : 16.625
RP magnitude          : 15.510
BP magnitude          : 17.896
DUPflag              : 0
Distance (au)         : 29.194
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -13.21
Sun-Target sep (deg) : 128.61
Sun-Moon sep (deg)   : 39.76
B (ring opening deg) : -10.20
PA of pole (deg)     : -47.58
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.780
C/A sky separation (km) : 16524.0
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
    
```



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2035-08-26T10:18:46.486	b	67.29	-26.80	62933.00	-26.50		
Galatea	I	2035-08-26T10:19:23.643	b	67.28	-26.69	61953.00	-26.25		
Arago	I	2035-08-26T10:22:29.774	b	67.20	-26.12	57200.00	-24.77		
Lassell	I	2035-08-26T10:23:51.771	b	67.16	-25.87	55200.00	-24.00		
LeVerrier	I	2035-08-26T10:25:16.638	b	67.12	-25.61	53200.00	-23.12		
Galle	I	2035-08-26T10:35:09.010		66.66	-23.77	42000.89	-13.60		
Neptune	I	2035-08-26T09:42:30.814		66.40	-33.14	24753.11		63.57	64.34
Neptune	E	2035-08-26T10:27:46.406		67.02	-25.15	24762.71		17.97	18.56
Galle	E	2035-08-26T10:52:25.863		65.36	-20.48	42000.00	13.57		
LeVerrier	E	2035-08-26T11:02:20.779		64.36	-18.55	53200.00	22.97		
Lassell	E	2035-08-26T11:03:46.213		64.20	-18.28	55200.00	23.83		
Arago	E	2035-08-26T11:05:08.812		64.04	-18.01	57200.00	24.58		
Galatea	E	2035-08-26T11:08:16.507		63.67	-17.39	61953.00	26.01		
Adams	E	2035-08-26T11:08:54.008		63.60	-17.27	62933.00	26.26		

```

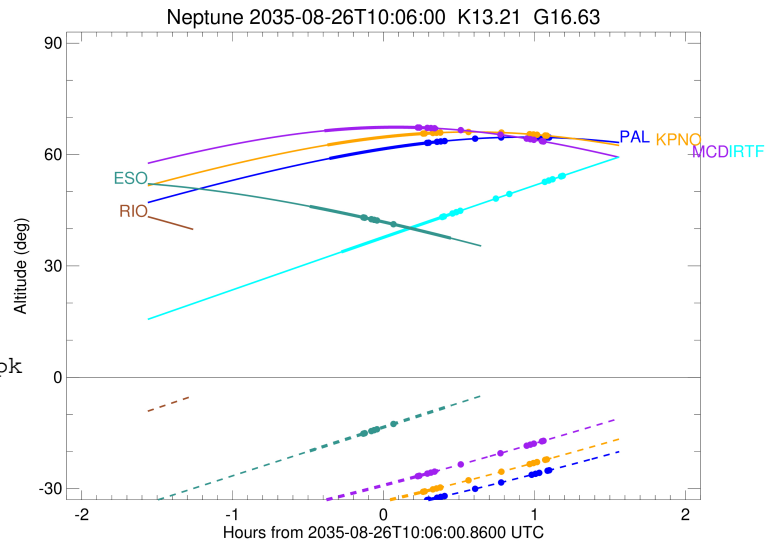
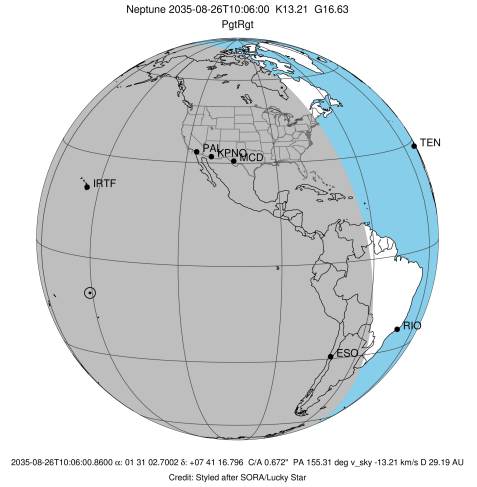
target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2035-08-26T10:10:48.770
Event type           : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : IRTF
Location             : Mauna Kea/IRTF
Latitude (deg)       : 19.82622
E. Longitude (deg)   : 204.52800
Altitude (km)        : 4.168
Gaia source ID       : 2566530554665743232
2Mass ID (if available) : 01310274+0741173
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 13.205
G magnitude           : 16.625
RP magnitude          : 15.510
BP magnitude          : 17.896
DUPflag              : 0
Distance (au)        : 29.194
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -13.21
Sun-Target sep (deg) : 128.61
Sun-Moon sep (deg)   : 40.12
B (ring opening deg) : -10.20
PA of pole (deg)     : -47.58
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.834
C/A sky separation (km) : 17663.9
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.urall1.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	2035-08-26T10:28:20.787	b	42.93	-59.89	62933.00	-25.11		
Galatea	I	2035-08-26T10:29:00.039	b	43.08	-59.89	61953.00	-24.82		
Arago	I	2035-08-26T10:32:18.217	b	43.85	-59.84	57200.00	-23.08		
Lassell	I	2035-08-26T10:33:46.587		44.20	-59.81	55200.01	-22.17		
LeVerrier	I	2035-08-26T10:35:18.996		44.56	-59.78	53200.02	-21.10		
Galle	I	2035-08-26T10:47:42.521		47.44	-59.35	42171.86	-7.94		
Neptune	I	2035-08-26T09:49:16.598		33.76	-58.73	24752.53		66.81	67.51
Neptune	E	2035-08-26T10:32:18.383		43.86	-59.84	24762.18		21.57	22.25
Galle	E	2035-08-26T10:57:12.029		49.65	-58.81	42001.43	7.40		
LeVerrier	E	2035-08-26T11:09:35.280		52.50	-57.88	53200.00	21.14		
Lassell	E	2035-08-26T11:11:07.516		52.86	-57.74	55200.00	22.21		
Arago	E	2035-08-26T11:12:35.719		53.19	-57.61	57200.00	23.13		
Galatea	E	2035-08-26T11:15:53.526		53.95	-57.30	61953.00	24.86		
Adams	E	2035-08-26T11:16:32.707		54.10	-57.24	62933.00	25.16		

```

target                : Neptune
target radius (km)   : 24764.00
C/A epoch             : 2035-08-26T10:04:42.840
Event type           : PgtRgt
: Neptune occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : ESO
Location              : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)   : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 2566530554665743232
2Mass ID (if available) : 01310274+0741173
ICRS Star Coord at Epoch: 01h 31m 02.70022s +07:41:16.79568s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 13.205
G magnitude           : 16.625
RP magnitude         : 15.510
BP magnitude         : 17.896
DUPflag              : 0
Distance (au)        : 29.194
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : -13.21
Sun-Target sep (deg) : 128.61
Sun-Moon sep (deg)   : 39.44
B (ring opening deg) : -10.20
PA of pole (deg)     : -47.58
Pole direction: RA (deg): 299.33374
Dec (deg): 42.95036
C/A sky separation (") : 0.455
C/A sky separation (km) : 9632.4
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
    
```



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
Adams	I	2035-08-26T09:57:57.546	b	43.06	-15.20	62933.00	-30.17		
Galatea	I	2035-08-26T09:58:30.051	b	42.98	-15.08	61953.00	-30.13		
Arago	I	2035-08-26T10:01:08.364	b	42.59	-14.51	57200.00	-29.93		
Lassell	I	2035-08-26T10:02:15.259	b	42.42	-14.26	55200.00	-29.86		
LeVerrier	I	2035-08-26T10:03:22.308	b	42.25	-14.02	53200.00	-29.79		
Galle	I	2035-08-26T10:09:44.571	b	41.26	-12.63	42000.00	-28.39		
Neptune	I	2035-08-26T09:36:39.540		46.04	-19.85	24757.13		45.38	46.35
Neptune	E	2035-08-26T10:32:48.388		37.47	-7.62	24764.00		-0.46	-0.47
Galle	E	2035-08-26T10:45:32.758		35.24	-4.87x	42000.00	27.56		
LeVerrier	E	2035-08-26T10:52:03.399		34.08	-3.46x	53200.00	29.55		
Lassell	E	2035-08-26T10:53:10.830		33.87	-3.22x	55200.00	29.77		
Arago	E	2035-08-26T10:54:17.785		33.67	-2.98x	57200.00	29.97		
Galatea	E	2035-08-26T10:56:55.320		33.19	-2.42x	61953.00	30.36		
Adams	E	2035-08-26T10:57:27.565		33.09	-2.30x	62933.00	30.43		