

Custom Ephemeris

Compiled by: APS

Calculated by: JPL Horizons

Date: 2023-09-19

C/2023 A3 (Tsuchinshan-ATLAS)

Discovered: 2023-01-09.897119

Orbital Period: not defined

Diameter: n/a

Perihelion: 2024-09-27, 18:04:17.1 UT

Links:

[SBDB](#)

[MPC](#)

Date	UT	JD	AU	RA	Declination	Latitude	Longitude	Rx
2023-Jan-01	12:00	2459946.0	7.7610	229°33'58.56"	-2°23'54.07"	+15°18'47.89"	17° Sco 47'23.01"	
2023-Jan-02	12:00	2459947.0	7.7524	229°38'07.65"	-2°24'01.51"	+15°19'47.21"	17° Sco 51'33.74"	
2023-Jan-03	12:00	2459948.0	7.7439	229°42'12.50"	-2°24'06.21"	+15°20'47.96"	17° Sco 55'39.50"	
2023-Jan-04	12:00	2459949.0	7.7354	229°46'12.98"	-2°24'08.15"	+15°21'50.12"	17° Sco 59'40.20"	
2023-Jan-05	12:00	2459950.0	7.7268	229°50'08.99"	-2°24'07.33"	+15°22'53.69"	18° Sco 03'35.70"	
2023-Jan-06	12:00	2459951.0	7.7183	229°54'00.41"	-2°24'03.74"	+15°23'58.66"	18° Sco 07'25.89"	
2023-Jan-07	12:00	2459952.0	7.7098	229°57'47.13"	-2°23'57.34"	+15°25'05.01"	18° Sco 11'10.65"	
2023-Jan-08	12:00	2459953.0	7.7012	230°01'29.04"	-2°23'48.13"	+15°26'12.74"	18° Sco 14'49.86"	
2023-Jan-09	12:00	2459954.0	7.6927	230°05'06.02"	-2°23'36.08"	+15°27'21.84"	18° Sco 18'23.41"	
2023-Jan-10	12:00	2459955.0	7.6841	230°08'37.96"	-2°23'21.18"	+15°28'32.29"	18° Sco 21'51.19"	
2023-Jan-11	12:00	2459956.0	7.6755	230°12'04.76"	-2°23'03.41"	+15°29'44.10"	18° Sco 25'13.08"	
2023-Jan-12	12:00	2459957.0	7.6670	230°15'26.33"	-2°22'42.74"	+15°30'57.25"	18° Sco 28'29.00"	
2023-Jan-13	12:00	2459958.0	7.6584	230°18'42.57"	-2°22'19.17"	+15°32'11.72"	18° Sco 31'38.82"	
2023-Jan-14	12:00	2459959.0	7.6498	230°21'53.38"	-2°21'52.68"	+15°33'27.51"	18° Sco 34'42.47"	
2023-Jan-15	12:00	2459960.0	7.6412	230°24'58.67"	-2°21'23.28"	+15°34'44.61"	18° Sco 37'39.85"	
2023-Jan-16	12:00	2459961.0	7.6327	230°27'58.36"	-2°20'50.94"	+15°36'03.00"	18° Sco 40'30.86"	
2023-Jan-17	12:00	2459962.0	7.6241	230°30'52.33"	-2°20'15.68"	+15°37'22.67"	18° Sco 43'15.39"	
2023-Jan-18	12:00	2459963.0	7.6155	230°33'40.49"	-2°19'37.50"	+15°38'43.60"	18° Sco 45'53.34"	
2023-Jan-19	12:00	2459964.0	7.6069	230°36'22.70"	-2°18'56.38"	+15°40'05.78"	18° Sco 48'24.57"	
2023-Jan-20	12:00	2459965.0	7.5983	230°38'58.82"	-2°18'12.32"	+15°41'29.20"	18° Sco 50'48.93"	
2023-Jan-21	12:00	2459966.0	7.5897	230°41'28.69"	-2°17'25.31"	+15°42'53.82"	18° Sco 53'06.26"	
2023-Jan-22	12:00	2459967.0	7.5811	230°43'52.16"	-2°16'35.33"	+15°44'19.64"	18° Sco 55'16.40"	
2023-Jan-23	12:00	2459968.0	7.5724	230°46'09.10"	-2°15'42.35"	+15°45'46.62"	18° Sco 57'19.22"	
2023-Jan-24	12:00	2459969.0	7.5638	230°48'19.42"	-2°14'46.36"	+15°47'14.75"	18° Sco 59'14.61"	
2023-Jan-25	12:00	2459970.0	7.5552	230°50'23.02"	-2°13'47.36"	+15°48'44.00"	19° Sco 01'02.50"	
2023-Jan-26	12:00	2459971.0	7.5466	230°52'19.86"	-2°12'45.36"	+15°50'14.34"	19° Sco 02'42.81"	
2023-Jan-27	12:00	2459972.0	7.5379	230°54'09.85"	-2°11'40.36"	+15°51'45.75"	19° Sco 04'15.48"	
2023-Jan-28	12:00	2459973.0	7.5293	230°55'52.92"	-2°10'32.40"	+15°53'18.20"	19° Sco 05'40.44"	
2023-Jan-29	12:00	2459974.0	7.5206	230°57'28.99"	-2°09'21.47"	+15°54'51.68"	19° Sco 06'57.60"	
2023-Jan-30	12:00	2459975.0	7.5120	230°58'57.96"	-2°08'07.60"	+15°56'26.14"	19° Sco 08'06.87"	
2023-Jan-31	12:00	2459976.0	7.5033	231°00'19.74"	-2°06'50.79"	+15°58'01.57"	19° Sco 09'08.13"	
2023-Feb-01	12:00	2459977.0	7.4947	231°01'34.21"	-2°05'31.05"	+15°59'37.93"	19° Sco 10'01.28"	
2023-Feb-02	12:00	2459978.0	7.4860	231°02'41.27"	-2°04'08.38"	+16°01'15.21"	19° Sco 10'46.22"	
2023-Feb-03	12:00	2459979.0	7.4774	231°03'40.81"	-2°02'42.78"	+16°02'53.37"	19° Sco 11'22.82"	
2023-Feb-04	12:00	2459980.0	7.4687	231°04'32.73"	-2°01'14.25"	+16°04'32.39"	19° Sco 11'50.98"	
2023-Feb-05	12:00	2459981.0	7.4600	231°05'16.93"	-1°59'42.79"	+16°06'12.24"	19° Sco 12'10.60"	
2023-Feb-06	12:00	2459982.0	7.4513	231°05'53.30"	-1°58'08.40"	+16°07'52.89"	19° Sco 12'21.58"	
2023-Feb-07	12:00	2459983.0	7.4426	231°06'21.75"	-1°56'31.08"	+16°09'34.30"	19° Sco 12'23.81"	

2023-Feb-08	12:00	2459984.0	7.4339	231°06'42.21"	-1°54'50.84"	+16°11'16.46"	19° Sco 12'17.21"	Rx
2023-Feb-09	12:00	2459985.0	7.4252	231°06'54.58"	-1°53'07.67"	+16°12'59.32"	19° Sco 12'01.70"	Rx
2023-Feb-10	12:00	2459986.0	7.4165	231°06'58.78"	-1°51'21.59"	+16°14'42.85"	19° Sco 11'37.19"	Rx
2023-Feb-11	12:00	2459987.0	7.4078	231°06'54.75"	-1°49'32.61"	+16°16'27.02"	19° Sco 11'03.61"	Rx
2023-Feb-12	12:00	2459988.0	7.3991	231°06'42.40"	-1°47'40.76"	+16°18'11.80"	19° Sco 10'20.89"	Rx
2023-Feb-13	12:00	2459989.0	7.3904	231°06'21.66"	-1°45'46.04"	+16°19'57.15"	19° Sco 09'28.93"	Rx
2023-Feb-14	12:00	2459990.0	7.3817	231°05'52.44"	-1°43'48.48"	+16°21'43.03"	19° Sco 08'27.66"	Rx
2023-Feb-15	12:00	2459991.0	7.3730	231°05'14.63"	-1°41'48.11"	+16°23'29.40"	19° Sco 07'16.96"	Rx
2023-Feb-16	12:00	2459992.0	7.3642	231°04'28.13"	-1°39'44.94"	+16°25'16.22"	19° Sco 05'56.73"	Rx
2023-Feb-17	12:00	2459993.0	7.3555	231°03'32.82"	-1°37'38.98"	+16°27'03.44"	19° Sco 04'26.85"	Rx
2023-Feb-18	12:00	2459994.0	7.3468	231°02'28.57"	-1°35'30.25"	+16°28'51.03"	19° Sco 02'47.18"	Rx
2023-Feb-19	12:00	2459995.0	7.3380	231°01'15.28"	-1°33'18.76"	+16°30'38.92"	19° Sco 00'57.62"	Rx
2023-Feb-20	12:00	2459996.0	7.3293	230°59'52.85"	-1°31'04.50"	+16°32'27.07"	18° Sco 58'58.08"	Rx
2023-Feb-21	12:00	2459997.0	7.3205	230°58'21.23"	-1°28'47.51"	+16°34'15.43"	18° Sco 56'48.50"	Rx
2023-Feb-22	12:00	2459998.0	7.3118	230°56'40.38"	-1°26'27.80"	+16°36'03.95"	18° Sco 54'28.85"	Rx
2023-Feb-23	12:00	2459999.0	7.3030	230°54'50.28"	-1°24'05.44"	+16°37'52.56"	18° Sco 51'59.12"	Rx
2023-Feb-24	12:00	2460000.0	7.2942	230°52'50.90"	-1°21'40.46"	+16°39'41.22"	18° Sco 49'19.28"	Rx
2023-Feb-25	12:00	2460001.0	7.2854	230°50'42.21"	-1°19'12.90"	+16°41'29.87"	18° Sco 46'29.31"	Rx
2023-Feb-26	12:00	2460002.0	7.2767	230°48'24.16"	-1°16'42.83"	+16°43'18.46"	18° Sco 43'29.16"	Rx
2023-Feb-27	12:00	2460003.0	7.2679	230°45'56.69"	-1°14'10.28"	+16°45'06.93"	18° Sco 40'18.78"	Rx
2023-Feb-28	12:00	2460004.0	7.2591	230°43'19.75"	-1°11'35.28"	+16°46'55.22"	18° Sco 36'58.12"	Rx
2023-Mar-01	12:00	2460005.0	7.2503	230°40'33.29"	-1°08'57.88"	+16°48'43.28"	18° Sco 33'27.13"	Rx
2023-Mar-02	12:00	2460006.0	7.2415	230°37'37.25"	-1°06'18.11"	+16°50'31.05"	18° Sco 29'45.77"	Rx
2023-Mar-03	12:00	2460007.0	7.2327	230°34'31.58"	-1°03'36.00"	+16°52'18.47"	18° Sco 25'53.97"	Rx
2023-Mar-04	12:00	2460008.0	7.2239	230°31'16.24"	-1°00'51.60"	+16°54'05.49"	18° Sco 21'51.72"	Rx
2023-Mar-05	12:00	2460009.0	7.2151	230°27'51.19"	-0°58'04.92"	+16°55'52.05"	18° Sco 17'38.97"	Rx
2023-Mar-06	12:00	2460010.0	7.2063	230°24'16.39"	-0°55'16.01"	+16°57'38.08"	18° Sco 13'15.69"	Rx
2023-Mar-07	12:00	2460011.0	7.1974	230°20'31.84"	-0°52'24.92"	+16°59'23.53"	18° Sco 08'41.89"	Rx
2023-Mar-08	12:00	2460012.0	7.1886	230°16'37.51"	-0°49'31.67"	+17°01'08.34"	18° Sco 03'57.54"	Rx
2023-Mar-09	12:00	2460013.0	7.1798	230°12'33.39"	-0°46'36.32"	+17°02'52.43"	17° Sco 59'02.66"	Rx
2023-Mar-10	12:00	2460014.0	7.1709	230°08'19.49"	-0°43'38.91"	+17°04'35.75"	17° Sco 53'57.24"	Rx
2023-Mar-11	12:00	2460015.0	7.1621	230°03'55.80"	-0°40'39.52"	+17°06'18.24"	17° Sco 48'41.31"	Rx
2023-Mar-12	12:00	2460016.0	7.1532	229°59'22.32"	-0°37'38.18"	+17°07'59.82"	17° Sco 43'14.86"	Rx
2023-Mar-13	12:00	2460017.0	7.1444	229°54'39.04"	-0°34'34.97"	+17°09'40.44"	17° Sco 37'37.91"	Rx
2023-Mar-14	12:00	2460018.0	7.1355	229°49'45.96"	-0°31'29.95"	+17°11'20.01"	17° Sco 31'50.45"	Rx
2023-Mar-15	12:00	2460019.0	7.1266	229°44'43.04"	-0°28'23.18"	+17°12'58.47"	17° Sco 25'52.48"	Rx
2023-Mar-16	12:00	2460020.0	7.1178	229°39'30.28"	-0°25'14.71"	+17°14'35.74"	17° Sco 19'43.98"	Rx
2023-Mar-17	12:00	2460021.0	7.1089	229°34'07.64"	-0°22'04.60"	+17°16'11.76"	17° Sco 13'24.94"	Rx
2023-Mar-18	12:00	2460022.0	7.1000	229°28'35.11"	-0°18'52.91"	+17°17'46.43"	17° Sco 06'55.37"	Rx
2023-Mar-19	12:00	2460023.0	7.0911	229°22'52.69"	-0°15'39.68"	+17°19'19.70"	17° Sco 00'15.27"	Rx
2023-Mar-20	12:00	2460024.0	7.0822	229°17'00.42"	-0°12'24.98"	+17°20'51.47"	16° Sco 53'24.71"	Rx
2023-Mar-21	12:00	2460025.0	7.0733	229°10'58.35"	-0°09'08.88"	+17°22'21.66"	16° Sco 46'23.76"	Rx
2023-Mar-22	12:00	2460026.0	7.0644	229°04'46.57"	-0°05'51.46"	+17°23'50.20"	16° Sco 39'12.53"	Rx
2023-Mar-23	12:00	2460027.0	7.0555	228°58'25.16"	-0°02'32.82"	+17°25'17.00"	16° Sco 31'51.14"	Rx
2023-Mar-24	12:00	2460028.0	7.0466	228°51'54.22"	+0°00'46.95"	+17°26'41.99"	16° Sco 24'19.70"	Rx
2023-Mar-25	12:00	2460029.0	7.0377	228°45'13.82"	+0°04'07.75"	+17°28'05.08"	16° Sco 16'38.31"	Rx

2023-Mar-26	12:00	2460030.0	7.0288	228°38'24.02"	+0°07'29.50"	+17°29'26.21"	16° Sco 08'47.07"	Rx
2023-Mar-27	12:00	2460031.0	7.0199	228°31'24.91"	+0°10'52.10"	+17°30'45.28"	16° Sco 00'46.07"	Rx
2023-Mar-28	12:00	2460032.0	7.0109	228°24'16.55"	+0°14'15.48"	+17°32'02.24"	15° Sco 52'35.40"	Rx
2023-Mar-29	12:00	2460033.0	7.0020	228°16'59.02"	+0°17'39.55"	+17°33'16.99"	15° Sco 44'15.17"	Rx
2023-Mar-30	12:00	2460034.0	6.9930	228°09'32.39"	+0°21'04.23"	+17°34'29.47"	15° Sco 35'45.49"	Rx
2023-Mar-31	12:00	2460035.0	6.9841	228°01'56.75"	+0°24'29.44"	+17°35'39.60"	15° Sco 27'06.47"	Rx
2023-Apr-01	12:00	2460036.0	6.9751	227°54'12.21"	+0°27'55.12"	+17°36'47.32"	15° Sco 18'18.23"	Rx
2023-Apr-02	12:00	2460037.0	6.9662	227°46'18.87"	+0°31'21.16"	+17°37'52.55"	15° Sco 09'20.91"	Rx
2023-Apr-03	12:00	2460038.0	6.9572	227°38'16.84"	+0°34'47.49"	+17°38'55.21"	15° Sco 00'14.66"	Rx
2023-Apr-04	12:00	2460039.0	6.9482	227°30'06.25"	+0°38'14.03"	+17°39'55.24"	14° Sco 50'59.64"	Rx
2023-Apr-05	12:00	2460040.0	6.9393	227°21'47.24"	+0°41'40.69"	+17°40'52.57"	14° Sco 41'36.01"	Rx
2023-Apr-06	12:00	2460041.0	6.9303	227°13'19.95"	+0°45'07.36"	+17°41'47.13"	14° Sco 32'03.96"	Rx
2023-Apr-07	12:00	2460042.0	6.9213	227°04'44.53"	+0°48'33.96"	+17°42'38.84"	14° Sco 22'23.66"	Rx
2023-Apr-08	12:00	2460043.0	6.9123	226°56'01.13"	+0°52'00.38"	+17°43'27.66"	14° Sco 12'35.31"	Rx
2023-Apr-09	12:00	2460044.0	6.9033	226°47'09.89"	+0°55'26.53"	+17°44'13.50"	14° Sco 02'39.08"	Rx
2023-Apr-10	12:00	2460045.0	6.8943	226°38'10.96"	+0°58'52.29"	+17°44'56.30"	13° Sco 52'35.15"	Rx
2023-Apr-11	12:00	2460046.0	6.8853	226°29'04.46"	+1°02'17.56"	+17°45'35.99"	13° Sco 42'23.69"	Rx
2023-Apr-12	12:00	2460047.0	6.8763	226°19'50.55"	+1°05'42.26"	+17°46'12.51"	13° Sco 32'04.88"	Rx
2023-Apr-13	12:00	2460048.0	6.8672	226°10'29.33"	+1°09'06.29"	+17°46'45.79"	13° Sco 21'38.87"	Rx
2023-Apr-14	12:00	2460049.0	6.8582	226°01'00.98"	+1°12'29.56"	+17°47'15.77"	13° Sco 11'05.86"	Rx
2023-Apr-15	12:00	2460050.0	6.8492	225°51'25.63"	+1°15'51.98"	+17°47'42.39"	13° Sco 00'26.04"	Rx
2023-Apr-16	12:00	2460051.0	6.8402	225°41'43.49"	+1°19'13.45"	+17°48'05.57"	12° Sco 49'39.65"	Rx
2023-Apr-17	12:00	2460052.0	6.8311	225°31'54.77"	+1°22'33.87"	+17°48'25.26"	12° Sco 38'46.95"	Rx
2023-Apr-18	12:00	2460053.0	6.8221	225°21'59.69"	+1°25'53.12"	+17°48'41.40"	12° Sco 27'48.20"	Rx
2023-Apr-19	12:00	2460054.0	6.8130	225°11'58.50"	+1°29'11.10"	+17°48'53.93"	12° Sco 16'43.72"	Rx
2023-Apr-20	12:00	2460055.0	6.8039	225°01'51.46"	+1°32'27.66"	+17°49'02.81"	12° Sco 05'33.80"	Rx
2023-Apr-21	12:00	2460056.0	6.7949	224°51'38.81"	+1°35'42.70"	+17°49'07.98"	11° Sco 54'18.73"	Rx
2023-Apr-22	12:00	2460057.0	6.7858	224°41'20.78"	+1°38'56.09"	+17°49'09.39"	11° Sco 42'58.78"	Rx
2023-Apr-23	12:00	2460058.0	6.7767	224°30'57.61"	+1°42'07.72"	+17°49'07.02"	11° Sco 31'34.25"	Rx
2023-Apr-24	12:00	2460059.0	6.7677	224°20'29.53"	+1°45'17.49"	+17°49'00.81"	11° Sco 20'05.39"	Rx
2023-Apr-25	12:00	2460060.0	6.7586	224°09'56.75"	+1°48'25.30"	+17°48'50.73"	11° Sco 08'32.48"	Rx
2023-Apr-26	12:00	2460061.0	6.7495	223°59'19.52"	+1°51'31.05"	+17°48'36.76"	10° Sco 56'55.79"	Rx
2023-Apr-27	12:00	2460062.0	6.7404	223°48'38.07"	+1°54'34.66"	+17°48'18.87"	10° Sco 45'15.60"	Rx
2023-Apr-28	12:00	2460063.0	6.7313	223°37'52.64"	+1°57'36.02"	+17°47'57.03"	10° Sco 33'32.20"	Rx
2023-Apr-29	12:00	2460064.0	6.7222	223°27'03.49"	+2°00'35.06"	+17°47'31.22"	10° Sco 21'45.88"	Rx
2023-Apr-30	12:00	2460065.0	6.7130	223°16'10.87"	+2°03'31.68"	+17°47'01.43"	10° Sco 09'56.94"	Rx
2023-May-01	12:00	2460066.0	6.7039	223°05'15.05"	+2°06'25.79"	+17°46'27.63"	9° Sco 58'05.69"	Rx
2023-May-02	12:00	2460067.0	6.6948	222°54'16.29"	+2°09'17.30"	+17°45'49.83"	9° Sco 46'12.44"	Rx
2023-May-03	12:00	2460068.0	6.6857	222°43'14.87"	+2°12'06.12"	+17°45'08.01"	9° Sco 34'17.50"	Rx
2023-May-04	12:00	2460069.0	6.6765	222°32'11.07"	+2°14'52.15"	+17°44'22.16"	9° Sco 22'21.20"	Rx
2023-May-05	12:00	2460070.0	6.6674	222°21'05.16"	+2°17'35.31"	+17°43'32.29"	9° Sco 10'23.85"	Rx
2023-May-06	12:00	2460071.0	6.6582	222°09'57.43"	+2°20'15.49"	+17°42'38.39"	8° Sco 58'25.77"	Rx
2023-May-07	12:00	2460072.0	6.6491	221°58'48.11"	+2°22'52.61"	+17°41'40.47"	8° Sco 46'27.25"	Rx
2023-May-08	12:00	2460073.0	6.6399	221°47'37.48"	+2°25'26.58"	+17°40'38.53"	8° Sco 34'28.58"	Rx
2023-May-09	12:00	2460074.0	6.6307	221°36'25.77"	+2°27'57.32"	+17°39'32.58"	8° Sco 22'30.04"	Rx
2023-May-10	12:00	2460075.0	6.6216	221°25'13.21"	+2°30'24.76"	+17°38'22.62"	8° Sco 10'31.89"	Rx

2023-May-11	12:00	2460076.0	6.6124	221°14'00.04"	+2°32'48.82"	+17°37'08.66"	7° Sco 58'34.40"	Rx
2023-May-12	12:00	2460077.0	6.6032	221°02'46.51"	+2°35'09.45"	+17°35'50.72"	7° Sco 46'37.87"	Rx
2023-May-13	12:00	2460078.0	6.5940	220°51'32.91"	+2°37'26.56"	+17°34'28.82"	7° Sco 34'42.60"	Rx
2023-May-14	12:00	2460079.0	6.5848	220°40'19.52"	+2°39'40.10"	+17°33'02.97"	7° Sco 22'48.92"	Rx
2023-May-15	12:00	2460080.0	6.5756	220°29'06.65"	+2°41'49.97"	+17°31'33.19"	7° Sco 10'57.18"	Rx
2023-May-16	12:00	2460081.0	6.5664	220°17'54.60"	+2°43'56.09"	+17°29'59.52"	6° Sco 59'07.72"	Rx
2023-May-17	12:00	2460082.0	6.5572	220°06'43.71"	+2°45'58.38"	+17°28'21.97"	6° Sco 47'20.89"	Rx
2023-May-18	12:00	2460083.0	6.5479	219°55'34.26"	+2°47'56.76"	+17°26'40.59"	6° Sco 35'37.03"	Rx
2023-May-19	12:00	2460084.0	6.5387	219°44'26.55"	+2°49'51.14"	+17°24'55.41"	6° Sco 23'56.46"	Rx
2023-May-20	12:00	2460085.0	6.5295	219°33'20.87"	+2°51'41.47"	+17°23'06.48"	6° Sco 12'19.49"	Rx
2023-May-21	12:00	2460086.0	6.5202	219°22'17.48"	+2°53'27.68"	+17°21'13.84"	6° Sco 00'46.39"	Rx
2023-May-22	12:00	2460087.0	6.5110	219°11'16.63"	+2°55'09.72"	+17°19'17.53"	5° Sco 49'17.46"	Rx
2023-May-23	12:00	2460088.0	6.5017	219°00'18.59"	+2°56'47.56"	+17°17'17.62"	5° Sco 37'52.96"	Rx
2023-May-24	12:00	2460089.0	6.4925	218°49'23.60"	+2°58'21.14"	+17°15'14.16"	5° Sco 26'33.17"	Rx
2023-May-25	12:00	2460090.0	6.4832	218°38'31.91"	+2°59'50.44"	+17°13'07.20"	5° Sco 15'18.34"	Rx
2023-May-26	12:00	2460091.0	6.4739	218°27'43.79"	+3°01'15.42"	+17°10'56.81"	5° Sco 04'08.76"	Rx
2023-May-27	12:00	2460092.0	6.4647	218°16'59.47"	+3°02'36.05"	+17°08'43.06"	4° Sco 53'04.68"	Rx
2023-May-28	12:00	2460093.0	6.4554	218°06'19.22"	+3°03'52.31"	+17°06'25.99"	4° Sco 42'06.37"	Rx
2023-May-29	12:00	2460094.0	6.4461	217°55'43.28"	+3°05'04.16"	+17°04'05.69"	4° Sco 31'14.09"	Rx
2023-May-30	12:00	2460095.0	6.4368	217°45'11.90"	+3°06'11.58"	+17°01'42.22"	4° Sco 20'28.09"	Rx
2023-May-31	12:00	2460096.0	6.4275	217°34'45.32"	+3°07'14.54"	+16°59'15.64"	4° Sco 09'48.64"	Rx
2023-Jun-01	12:00	2460097.0	6.4182	217°24'23.80"	+3°08'13.01"	+16°56'46.04"	3° Sco 59'15.98"	Rx
2023-Jun-02	12:00	2460098.0	6.4089	217°14'07.55"	+3°09'06.97"	+16°54'13.49"	3° Sco 48'50.35"	Rx
2023-Jun-03	12:00	2460099.0	6.3995	217°03'56.81"	+3°09'56.40"	+16°51'38.05"	3° Sco 38'31.96"	Rx
2023-Jun-04	12:00	2460100.0	6.3902	216°53'51.77"	+3°10'41.27"	+16°48'59.79"	3° Sco 28'21.03"	Rx
2023-Jun-05	12:00	2460101.0	6.3809	216°43'52.60"	+3°11'21.58"	+16°46'18.80"	3° Sco 18'17.72"	Rx
2023-Jun-06	12:00	2460102.0	6.3715	216°33'59.49"	+3°11'57.32"	+16°43'35.15"	3° Sco 08'22.20"	Rx
2023-Jun-07	12:00	2460103.0	6.3622	216°24'12.58"	+3°12'28.49"	+16°40'48.90"	2° Sco 58'34.63"	Rx
2023-Jun-08	12:00	2460104.0	6.3528	216°14'32.05"	+3°12'55.12"	+16°38'00.13"	2° Sco 48'55.17"	Rx
2023-Jun-09	12:00	2460105.0	6.3435	216°04'58.08"	+3°13'17.19"	+16°35'08.91"	2° Sco 39'24.00"	Rx
2023-Jun-10	12:00	2460106.0	6.3341	215°55'30.87"	+3°13'34.70"	+16°32'15.32"	2° Sco 30'01.32"	Rx
2023-Jun-11	12:00	2460107.0	6.3247	215°46'10.64"	+3°13'47.65"	+16°29'19.43"	2° Sco 20'47.34"	Rx
2023-Jun-12	12:00	2460108.0	6.3154	215°36'57.59"	+3°13'56.03"	+16°26'21.31"	2° Sco 11'42.28"	Rx
2023-Jun-13	12:00	2460109.0	6.3060	215°27'51.95"	+3°13'59.83"	+16°23'21.05"	2° Sco 02'46.33"	Rx
2023-Jun-14	12:00	2460110.0	6.2966	215°18'53.89"	+3°13'59.03"	+16°20'18.73"	1° Sco 53'59.69"	Rx
2023-Jun-15	12:00	2460111.0	6.2872	215°10'03.62"	+3°13'53.63"	+16°17'14.41"	1° Sco 45'22.53"	Rx
2023-Jun-16	12:00	2460112.0	6.2778	215°01'21.28"	+3°13'43.64"	+16°14'08.19"	1° Sco 36'55.00"	Rx
2023-Jun-17	12:00	2460113.0	6.2684	214°52'47.03"	+3°13'29.06"	+16°11'00.14"	1° Sco 28'37.23"	Rx
2023-Jun-18	12:00	2460114.0	6.2590	214°44'21.00"	+3°13'09.92"	+16°07'50.35"	1° Sco 20'29.34"	Rx
2023-Jun-19	12:00	2460115.0	6.2495	214°36'03.32"	+3°12'46.24"	+16°04'38.90"	1° Sco 12'31.45"	Rx
2023-Jun-20	12:00	2460116.0	6.2401	214°27'54.11"	+3°12'18.06"	+16°01'25.87"	1° Sco 04'43.64"	Rx
2023-Jun-21	12:00	2460117.0	6.2307	214°19'53.48"	+3°11'45.39"	+15°58'11.35"	0° Sco 57'06.02"	Rx
2023-Jun-22	12:00	2460118.0	6.2212	214°12'01.55"	+3°11'08.29"	+15°54'55.42"	0° Sco 49'38.68"	Rx
2023-Jun-23	12:00	2460119.0	6.2118	214°04'18.43"	+3°10'26.78"	+15°51'38.15"	0° Sco 42'21.71"	Rx
2023-Jun-24	12:00	2460120.0	6.2023	213°56'44.22"	+3°09'40.89"	+15°48'19.63"	0° Sco 35'15.20"	Rx
2023-Jun-25	12:00	2460121.0	6.1928	213°49'19.03"	+3°08'50.67"	+15°44'59.95"	0° Sco 28'19.23"	Rx

2023-Jun-26	12:00	2460122.0	6.1834	213°42'02.97"	+3°07'56.15"	+15°41'39.17"	0° Sco 21'33.88"	Rx
2023-Jun-27	12:00	2460123.0	6.1739	213°34'56.12"	+3°06'57.36"	+15°38'17.38"	0° Sco 14'59.23"	Rx
2023-Jun-28	12:00	2460124.0	6.1644	213°27'58.60"	+3°05'54.34"	+15°34'54.65"	0° Sco 08'35.35"	Rx
2023-Jun-29	12:00	2460125.0	6.1549	213°21'10.47"	+3°04'47.11"	+15°31'31.07"	0° Sco 02'22.31"	Rx
2023-Jun-30	12:00	2460126.0	6.1454	213°14'31.82"	+3°03'35.72"	+15°28'06.70"	29° Lib 56'20.15"	Rx
2023-Jul-01	12:00	2460127.0	6.1359	213°08'02.71"	+3°02'20.19"	+15°24'41.61"	29° Lib 50'28.91"	Rx
2023-Jul-02	12:00	2460128.0	6.1264	213°01'43.17"	+3°01'00.56"	+15°21'15.87"	29° Lib 44'48.60"	Rx
2023-Jul-03	12:00	2460129.0	6.1169	212°55'33.23"	+2°59'36.89"	+15°17'49.56"	29° Lib 39'19.21"	Rx
2023-Jul-04	12:00	2460130.0	6.1073	212°49'32.89"	+2°58'09.23"	+15°14'22.73"	29° Lib 34'00.73"	Rx
2023-Jul-05	12:00	2460131.0	6.0978	212°43'42.17"	+2°56'37.63"	+15°10'55.46"	29° Lib 28'53.13"	Rx
2023-Jul-06	12:00	2460132.0	6.0883	212°38'01.08"	+2°55'02.15"	+15°07'27.79"	29° Lib 23'56.42"	Rx
2023-Jul-07	12:00	2460133.0	6.0787	212°32'29.68"	+2°53'22.84"	+15°03'59.80"	29° Lib 19'10.62"	Rx
2023-Jul-08	12:00	2460134.0	6.0692	212°27'08.03"	+2°51'39.73"	+15°00'31.53"	29° Lib 14'35.78"	Rx
2023-Jul-09	12:00	2460135.0	6.0596	212°21'56.19"	+2°49'52.85"	+14°57'03.06"	29° Lib 10'11.94"	Rx
2023-Jul-10	12:00	2460136.0	6.0500	212°16'54.24"	+2°48'02.22"	+14°53'34.43"	29° Lib 05'59.15"	Rx
2023-Jul-11	12:00	2460137.0	6.0405	212°12'02.24"	+2°46'07.89"	+14°50'05.71"	29° Lib 01'57.44"	Rx
2023-Jul-12	12:00	2460138.0	6.0309	212°07'20.21"	+2°44'09.87"	+14°46'36.95"	28° Lib 58'06.83"	Rx
2023-Jul-13	12:00	2460139.0	6.0213	212°02'48.18"	+2°42'08.21"	+14°43'08.21"	28° Lib 54'27.32"	Rx
2023-Jul-14	12:00	2460140.0	6.0117	211°58'26.17"	+2°40'02.96"	+14°39'39.55"	28° Lib 50'58.89"	Rx
2023-Jul-15	12:00	2460141.0	6.0021	211°54'14.17"	+2°37'54.16"	+14°36'11.02"	28° Lib 47'41.50"	Rx
2023-Jul-16	12:00	2460142.0	5.9925	211°50'12.18"	+2°35'41.86"	+14°32'42.68"	28° Lib 44'35.14"	Rx
2023-Jul-17	12:00	2460143.0	5.9829	211°46'20.17"	+2°33'26.14"	+14°29'14.58"	28° Lib 41'39.74"	Rx
2023-Jul-18	12:00	2460144.0	5.9732	211°42'38.13"	+2°31'07.03"	+14°25'46.78"	28° Lib 38'55.27"	Rx
2023-Jul-19	12:00	2460145.0	5.9636	211°39'06.05"	+2°28'44.62"	+14°22'19.32"	28° Lib 36'21.68"	Rx
2023-Jul-20	12:00	2460146.0	5.9540	211°35'43.90"	+2°26'18.94"	+14°18'52.26"	28° Lib 33'58.92"	Rx
2023-Jul-21	12:00	2460147.0	5.9443	211°32'31.67"	+2°23'50.06"	+14°15'25.65"	28° Lib 31'46.96"	Rx
2023-Jul-22	12:00	2460148.0	5.9347	211°29'29.34"	+2°21'18.05"	+14°11'59.53"	28° Lib 29'45.75"	Rx
2023-Jul-23	12:00	2460149.0	5.9250	211°26'36.90"	+2°18'42.94"	+14°08'33.95"	28° Lib 27'55.25"	Rx
2023-Jul-24	12:00	2460150.0	5.9153	211°23'54.32"	+2°16'04.79"	+14°05'08.95"	28° Lib 26'15.41"	Rx
2023-Jul-25	12:00	2460151.0	5.9057	211°21'21.58"	+2°13'23.65"	+14°01'44.57"	28° Lib 24'46.19"	Rx
2023-Jul-26	12:00	2460152.0	5.8960	211°18'58.67"	+2°10'39.58"	+13°58'20.87"	28° Lib 23'27.54"	Rx
2023-Jul-27	12:00	2460153.0	5.8863	211°16'45.54"	+2°07'52.61"	+13°54'57.87"	28° Lib 22'19.40"	Rx
2023-Jul-28	12:00	2460154.0	5.8766	211°14'42.16"	+2°05'02.79"	+13°51'35.61"	28° Lib 21'21.71"	Rx
2023-Jul-29	12:00	2460155.0	5.8669	211°12'48.47"	+2°02'10.18"	+13°48'14.14"	28° Lib 20'34.39"	Rx
2023-Jul-30	12:00	2460156.0	5.8572	211°11'04.41"	+1°59'14.84"	+13°44'53.47"	28° Lib 19'57.34"	Rx
2023-Jul-31	12:00	2460157.0	5.8475	211°09'29.88"	+1°56'16.81"	+13°41'33.65"	28° Lib 19'30.44"	Rx
2023-Aug-01	12:00	2460158.0	5.8377	211°08'04.79"	+1°53'16.17"	+13°38'14.70"	28° Lib 19'13.59"	Rx
2023-Aug-02	12:00	2460159.0	5.8280	211°06'49.07"	+1°50'12.98"	+13°34'56.65"	28° Lib 19'06.67"	Rx
2023-Aug-03	12:00	2460160.0	5.8183	211°05'42.67"	+1°47'07.30"	+13°31'39.52"	28° Lib 19'09.62"	
2023-Aug-04	12:00	2460161.0	5.8085	211°04'45.53"	+1°43'59.18"	+13°28'23.35"	28° Lib 19'22.37"	
2023-Aug-05	12:00	2460162.0	5.7988	211°03'57.67"	+1°40'48.64"	+13°25'08.14"	28° Lib 19'44.92"	
2023-Aug-06	12:00	2460163.0	5.7890	211°03'19.06"	+1°37'35.73"	+13°21'53.94"	28° Lib 20'17.21"	
2023-Aug-07	12:00	2460164.0	5.7792	211°02'49.69"	+1°34'20.47"	+13°18'40.75"	28° Lib 20'59.23"	
2023-Aug-08	12:00	2460165.0	5.7694	211°02'29.52"	+1°31'02.90"	+13°15'28.61"	28° Lib 21'50.92"	
2023-Aug-09	12:00	2460166.0	5.7596	211°02'18.51"	+1°27'43.04"	+13°12'17.53"	28° Lib 22'52.22"	
2023-Aug-10	12:00	2460167.0	5.7498	211°02'16.59"	+1°24'20.95"	+13°09'07.55"	28° Lib 24'03.03"	

2023-Aug-11	12:00	2460168.0	5.7400	211°02'23.70"	+1°20'56.68"	+13°05'58.68"	28° Lib 25'23.27"	
2023-Aug-12	12:00	2460169.0	5.7302	211°02'39.76"	+1°17'30.28"	+13°02'50.94"	28° Lib 26'52.84"	
2023-Aug-13	12:00	2460170.0	5.7204	211°03'04.69"	+1°14'01.79"	+12°59'44.37"	28° Lib 28'31.64"	
2023-Aug-14	12:00	2460171.0	5.7106	211°03'38.41"	+1°10'31.29"	+12°56'38.97"	28° Lib 30'19.58"	
2023-Aug-15	12:00	2460172.0	5.7008	211°04'20.85"	+1°06'58.82"	+12°53'34.77"	28° Lib 32'16.55"	
2023-Aug-16	12:00	2460173.0	5.6909	211°05'11.94"	+1°03'24.45"	+12°50'31.78"	28° Lib 34'22.47"	
2023-Aug-17	12:00	2460174.0	5.6811	211°06'11.59"	+0°59'48.22"	+12°47'30.04"	28° Lib 36'37.23"	
2023-Aug-18	12:00	2460175.0	5.6712	211°07'19.74"	+0°56'10.18"	+12°44'29.54"	28° Lib 39'00.76"	
2023-Aug-19	12:00	2460176.0	5.6613	211°08'36.33"	+0°52'30.39"	+12°41'30.32"	28° Lib 41'32.97"	
2023-Aug-20	12:00	2460177.0	5.6515	211°10'01.29"	+0°48'48.89"	+12°38'32.38"	28° Lib 44'13.77"	
2023-Aug-21	12:00	2460178.0	5.6416	211°11'34.56"	+0°45'05.73"	+12°35'35.75"	28° Lib 47'03.08"	
2023-Aug-22	12:00	2460179.0	5.6317	211°13'16.06"	+0°41'20.95"	+12°32'40.43"	28° Lib 50'00.82"	
2023-Aug-23	12:00	2460180.0	5.6218	211°15'05.72"	+0°37'34.58"	+12°29'46.43"	28° Lib 53'06.90"	
2023-Aug-24	12:00	2460181.0	5.6119	211°17'03.47"	+0°33'46.68"	+12°26'53.78"	28° Lib 56'21.22"	
2023-Aug-25	12:00	2460182.0	5.6020	211°19'09.21"	+0°29'57.29"	+12°24'02.47"	28° Lib 59'43.68"	
2023-Aug-26	12:00	2460183.0	5.5920	211°21'22.85"	+0°26'06.44"	+12°21'12.53"	29° Lib 03'14.16"	
2023-Aug-27	12:00	2460184.0	5.5821	211°23'44.28"	+0°22'14.20"	+12°18'23.94"	29° Lib 06'52.53"	
2023-Aug-28	12:00	2460185.0	5.5722	211°26'13.38"	+0°18'20.62"	+12°15'36.73"	29° Lib 10'38.65"	
2023-Aug-29	12:00	2460186.0	5.5622	211°28'50.03"	+0°14'25.75"	+12°12'50.90"	29° Lib 14'32.40"	
2023-Aug-30	12:00	2460187.0	5.5523	211°31'34.14"	+0°10'29.65"	+12°10'06.44"	29° Lib 18'33.65"	
2023-Aug-31	12:00	2460188.0	5.5423	211°34'25.62"	+0°06'32.36"	+12°07'23.37"	29° Lib 22'42.32"	
2023-Sep-01	12:00	2460189.0	5.5323	211°37'24.44"	+0°02'33.92"	+12°04'41.68"	29° Lib 26'58.36"	
2023-Sep-02	12:00	2460190.0	5.5224	211°40'30.55"	-0°01'25.64"	+12°02'01.38"	29° Lib 31'21.72"	
2023-Sep-03	12:00	2460191.0	5.5124	211°43'43.93"	-0°05'26.31"	+11°59'22.47"	29° Lib 35'52.36"	
2023-Sep-04	12:00	2460192.0	5.5024	211°47'04.53"	-0°09'28.07"	+11°56'44.95"	29° Lib 40'30.22"	
2023-Sep-05	12:00	2460193.0	5.4924	211°50'32.29"	-0°13'30.89"	+11°54'08.83"	29° Lib 45'15.22"	
2023-Sep-06	12:00	2460194.0	5.4824	211°54'07.11"	-0°17'34.73"	+11°51'34.12"	29° Lib 50'07.28"	
2023-Sep-07	12:00	2460195.0	5.4723	211°57'48.93"	-0°21'39.56"	+11°49'00.81"	29° Lib 55'06.28"	
2023-Sep-08	12:00	2460196.0	5.4623	212°01'37.63"	-0°25'45.34"	+11°46'28.90"	0° Sco 00'12.13"	
2023-Sep-09	12:00	2460197.0	5.4523	212°05'33.14"	-0°29'52.00"	+11°43'58.42"	0° Sco 05'24.71"	
2023-Sep-10	12:00	2460198.0	5.4422	212°09'35.35"	-0°33'59.52"	+11°41'29.35"	0° Sco 10'43.92"	
2023-Sep-11	12:00	2460199.0	5.4322	212°13'44.18"	-0°38'07.84"	+11°39'01.71"	0° Sco 16'09.65"	
2023-Sep-12	12:00	2460200.0	5.4221	212°17'59.53"	-0°42'16.91"	+11°36'35.49"	0° Sco 21'41.80"	
2023-Sep-13	12:00	2460201.0	5.4120	212°22'21.33"	-0°46'26.70"	+11°34'10.70"	0° Sco 27'20.27"	
2023-Sep-14	12:00	2460202.0	5.4019	212°26'49.49"	-0°50'37.14"	+11°31'47.35"	0° Sco 33'04.98"	
2023-Sep-15	12:00	2460203.0	5.3919	212°31'23.93"	-0°54'48.21"	+11°29'25.43"	0° Sco 38'55.82"	
2023-Sep-16	12:00	2460204.0	5.3818	212°36'04.59"	-0°58'59.87"	+11°27'04.95"	0° Sco 44'52.73"	
2023-Sep-17	12:00	2460205.0	5.3716	212°40'51.38"	-1°03'12.08"	+11°24'45.91"	0° Sco 50'55.60"	
2023-Sep-18	12:00	2460206.0	5.3615	212°45'44.24"	-1°07'24.79"	+11°22'28.31"	0° Sco 57'04.35"	
2023-Sep-19	12:00	2460207.0	5.3514	212°50'43.08"	-1°11'37.99"	+11°20'12.16"	1° Sco 03'18.90"	
2023-Sep-20	12:00	2460208.0	5.3413	212°55'47.81"	-1°15'51.63"	+11°17'57.44"	1° Sco 09'39.15"	
2023-Sep-21	12:00	2460209.0	5.3311	213°00'58.35"	-1°20'05.68"	+11°15'44.17"	1° Sco 16'04.99"	
2023-Sep-22	12:00	2460210.0	5.3210	213°06'14.58"	-1°24'20.10"	+11°13'32.34"	1° Sco 22'36.30"	
2023-Sep-23	12:00	2460211.0	5.3108	213°11'36.41"	-1°28'34.85"	+11°11'21.95"	1° Sco 29'12.97"	
2023-Sep-24	12:00	2460212.0	5.3006	213°17'03.70"	-1°32'49.89"	+11°09'12.99"	1° Sco 35'54.86"	
2023-Sep-25	12:00	2460213.0	5.2905	213°22'36.34"	-1°37'05.16"	+11°07'05.46"	1° Sco 42'41.84"	

2023-Sep-26	12:00	2460214.0	5.2803	213°28'14.23"	-1°41'20.62"	+11°04'59.36"	1° Sco 49'33.79"	
2023-Sep-27	12:00	2460215.0	5.2701	213°33'57.27"	-1°45'36.23"	+11°02'54.68"	1° Sco 56'30.62"	
2023-Sep-28	12:00	2460216.0	5.2599	213°39'45.39"	-1°49'51.95"	+11°00'51.42"	2° Sco 03'32.24"	
2023-Sep-29	12:00	2460217.0	5.2497	213°45'38.56"	-1°54'07.75"	+10°58'49.57"	2° Sco 10'38.61"	
2023-Sep-30	12:00	2460218.0	5.2394	213°51'36.73"	-1°58'23.63"	+10°56'49.12"	2° Sco 17'49.70"	
2023-Oct-01	12:00	2460219.0	5.2292	213°57'39.86"	-2°02'39.56"	+10°54'50.07"	2° Sco 25'05.45"	
2023-Oct-02	12:00	2460220.0	5.2190	214°03'47.90"	-2°06'55.54"	+10°52'52.42"	2° Sco 32'25.79"	
2023-Oct-03	12:00	2460221.0	5.2087	214°10'00.78"	-2°11'11.54"	+10°50'56.16"	2° Sco 39'50.66"	
2023-Oct-04	12:00	2460222.0	5.1984	214°16'18.39"	-2°15'27.52"	+10°49'01.29"	2° Sco 47'19.93"	
2023-Oct-05	12:00	2460223.0	5.1882	214°22'40.64"	-2°19'43.46"	+10°47'07.80"	2° Sco 54'53.52"	
2023-Oct-06	12:00	2460224.0	5.1779	214°29'07.44"	-2°23'59.32"	+10°45'15.71"	3° Sco 02'31.31"	
2023-Oct-07	12:00	2460225.0	5.1676	214°35'38.69"	-2°28'15.04"	+10°43'25.00"	3° Sco 10'13.20"	
2023-Oct-08	12:00	2460226.0	5.1573	214°42'14.30"	-2°32'30.59"	+10°41'35.67"	3° Sco 17'59.08"	
2023-Oct-09	12:00	2460227.0	5.1470	214°48'54.17"	-2°36'45.93"	+10°39'47.72"	3° Sco 25'48.85"	
2023-Oct-10	12:00	2460228.0	5.1367	214°55'38.22"	-2°41'01.02"	+10°38'01.15"	3° Sco 33'42.42"	
2023-Oct-11	12:00	2460229.0	5.1264	215°02'26.36"	-2°45'15.81"	+10°36'15.97"	3° Sco 41'39.70"	
2023-Oct-12	12:00	2460230.0	5.1160	215°09'18.53"	-2°49'30.27"	+10°34'32.16"	3° Sco 49'40.59"	
2023-Oct-13	12:00	2460231.0	5.1057	215°16'14.63"	-2°53'44.37"	+10°32'49.72"	3° Sco 57'45.02"	
2023-Oct-14	12:00	2460232.0	5.0953	215°23'14.59"	-2°57'58.08"	+10°31'08.66"	4° Sco 05'52.90"	
2023-Oct-15	12:00	2460233.0	5.0849	215°30'18.35"	-3°02'11.35"	+10°29'28.98"	4° Sco 14'04.14"	
2023-Oct-16	12:00	2460234.0	5.0746	215°37'25.81"	-3°06'24.17"	+10°27'50.66"	4° Sco 22'18.66"	
2023-Oct-17	12:00	2460235.0	5.0642	215°44'36.88"	-3°10'36.50"	+10°26'13.71"	4° Sco 30'36.36"	
2023-Oct-18	12:00	2460236.0	5.0538	215°51'51.48"	-3°14'48.31"	+10°24'38.13"	4° Sco 38'57.14"	
2023-Oct-19	12:00	2460237.0	5.0434	215°59'09.49"	-3°18'59.57"	+10°23'03.90"	4° Sco 47'20.88"	
2023-Oct-20	12:00	2460238.0	5.0330	216°06'30.80"	-3°23'10.25"	+10°21'31.04"	4° Sco 55'47.46"	
2023-Oct-21	12:00	2460239.0	5.0225	216°13'55.29"	-3°27'20.29"	+10°19'59.52"	5° Sco 04'16.75"	
2023-Oct-22	12:00	2460240.0	5.0121	216°21'22.83"	-3°31'29.66"	+10°18'29.35"	5° Sco 12'48.61"	
2023-Oct-23	12:00	2460241.0	5.0017	216°28'53.31"	-3°35'38.31"	+10°17'00.51"	5° Sco 21'22.94"	
2023-Oct-24	12:00	2460242.0	4.9912	216°36'26.64"	-3°39'46.21"	+10°15'33.01"	5° Sco 29'59.61"	
2023-Oct-25	12:00	2460243.0	4.9808	216°44'02.73"	-3°43'53.31"	+10°14'06.83"	5° Sco 38'38.55"	
2023-Oct-26	12:00	2460244.0	4.9703	216°51'41.51"	-3°47'59.59"	+10°12'41.98"	5° Sco 47'19.69"	
2023-Oct-27	12:00	2460245.0	4.9598	216°59'22.95"	-3°52'05.04"	+10°11'18.43"	5° Sco 56'02.98"	
2023-Oct-28	12:00	2460246.0	4.9493	217°07'07.00"	-3°56'09.64"	+10°09'56.18"	6° Sco 04'48.38"	
2023-Oct-29	12:00	2460247.0	4.9388	217°14'53.60"	-4°00'13.38"	+10°08'35.24"	6° Sco 13'35.81"	
2023-Oct-30	12:00	2460248.0	4.9283	217°22'42.67"	-4°04'16.24"	+10°07'15.58"	6° Sco 22'25.22"	
2023-Oct-31	12:00	2460249.0	4.9178	217°30'34.13"	-4°08'18.21"	+10°05'57.22"	6° Sco 31'16.50"	
2023-Nov-01	12:00	2460250.0	4.9072	217°38'27.88"	-4°12'19.24"	+10°04'40.13"	6° Sco 40'09.54"	
2023-Nov-02	12:00	2460251.0	4.8967	217°46'23.80"	-4°16'19.32"	+10°03'24.34"	6° Sco 49'04.23"	
2023-Nov-03	12:00	2460252.0	4.8861	217°54'21.79"	-4°20'18.39"	+10°02'09.82"	6° Sco 58'00.46"	
2023-Nov-04	12:00	2460253.0	4.8756	218°02'21.75"	-4°24'16.41"	+10°00'56.58"	7° Sco 06'58.11"	
2023-Nov-05	12:00	2460254.0	4.8650	218°10'23.58"	-4°28'13.36"	+9°59'44.61"	7° Sco 15'57.09"	
2023-Nov-06	12:00	2460255.0	4.8544	218°18'27.18"	-4°32'09.17"	+9°58'33.92"	7° Sco 24'57.28"	
2023-Nov-07	12:00	2460256.0	4.8438	218°26'32.45"	-4°36'03.83"	+9°57'24.51"	7° Sco 33'58.58"	
2023-Nov-08	12:00	2460257.0	4.8332	218°34'39.31"	-4°39'57.29"	+9°56'16.36"	7° Sco 43'00.91"	
2023-Nov-09	12:00	2460258.0	4.8226	218°42'47.67"	-4°43'49.52"	+9°55'09.48"	7° Sco 52'04.17"	
2023-Nov-10	12:00	2460259.0	4.8119	218°50'57.44"	-4°47'40.49"	+9°54'03.87"	8° Sco 01'08.26"	

2023-Nov-11	12:00	2460260.0	4.8013	218°59'08.54"	-4°51'30.16"	+9°52'59.53"	8° Sco 10'13.10"	
2023-Nov-12	12:00	2460261.0	4.7906	219°07'20.86"	-4°55'18.50"	+9°51'56.46"	8° Sco 19'18.58"	
2023-Nov-13	12:00	2460262.0	4.7800	219°15'34.31"	-4°59'05.50"	+9°50'54.64"	8° Sco 28'24.60"	
2023-Nov-14	12:00	2460263.0	4.7693	219°23'48.79"	-5°02'51.12"	+9°49'54.09"	8° Sco 37'31.05"	
2023-Nov-15	12:00	2460264.0	4.7586	219°32'04.17"	-5°06'35.32"	+9°48'54.79"	8° Sco 46'37.81"	
2023-Nov-16	12:00	2460265.0	4.7479	219°40'20.31"	-5°10'18.08"	+9°47'56.74"	8° Sco 55'44.73"	
2023-Nov-17	12:00	2460266.0	4.7372	219°48'37.08"	-5°13'59.36"	+9°46'59.95"	9° Sco 04'51.67"	
2023-Nov-18	12:00	2460267.0	4.7265	219°56'54.34"	-5°17'39.10"	+9°46'04.39"	9° Sco 13'58.47"	
2023-Nov-19	12:00	2460268.0	4.7158	220°05'11.95"	-5°21'17.27"	+9°45'10.08"	9° Sco 23'05.01"	
2023-Nov-20	12:00	2460269.0	4.7050	220°13'29.78"	-5°24'53.83"	+9°44'17.00"	9° Sco 32'11.16"	
2023-Nov-21	12:00	2460270.0	4.6943	220°21'47.75"	-5°28'28.74"	+9°43'25.14"	9° Sco 41'16.81"	
2023-Nov-22	12:00	2460271.0	4.6835	220°30'05.76"	-5°32'01.96"	+9°42'34.49"	9° Sco 50'21.87"	
2023-Nov-23	12:00	2460272.0	4.6728	220°38'23.74"	-5°35'33.49"	+9°41'45.06"	9° Sco 59'26.27"	
2023-Nov-24	12:00	2460273.0	4.6620	220°46'41.62"	-5°39'03.30"	+9°40'56.84"	10° Sco 08'29.95"	
2023-Nov-25	12:00	2460274.0	4.6512	220°54'59.32"	-5°42'31.38"	+9°40'09.81"	10° Sco 17'32.82"	
2023-Nov-26	12:00	2460275.0	4.6404	221°03'16.75"	-5°45'57.73"	+9°39'23.98"	10° Sco 26'34.79"	
2023-Nov-27	12:00	2460276.0	4.6296	221°11'33.82"	-5°49'22.31"	+9°38'39.34"	10° Sco 35'35.76"	
2023-Nov-28	12:00	2460277.0	4.6187	221°19'50.39"	-5°52'45.10"	+9°37'55.88"	10° Sco 44'35.61"	
2023-Nov-29	12:00	2460278.0	4.6079	221°28'06.35"	-5°56'06.08"	+9°37'13.61"	10° Sco 53'34.21"	
2023-Nov-30	12:00	2460279.0	4.5970	221°36'21.54"	-5°59'25.20"	+9°36'32.51"	11° Sco 02'31.41"	
2023-Dec-01	12:00	2460280.0	4.5862	221°44'35.86"	-6°02'42.42"	+9°35'52.60"	11° Sco 11'27.08"	
2023-Dec-02	12:00	2460281.0	4.5753	221°52'49.16"	-6°05'57.70"	+9°35'13.86"	11° Sco 20'21.09"	
2023-Dec-03	12:00	2460282.0	4.5644	222°01'01.32"	-6°09'11.00"	+9°34'36.30"	11° Sco 29'13.32"	
2023-Dec-04	12:00	2460283.0	4.5535	222°09'12.22"	-6°12'22.29"	+9°33'59.92"	11° Sco 38'03.63"	
2023-Dec-05	12:00	2460284.0	4.5426	222°17'21.74"	-6°15'31.51"	+9°33'24.71"	11° Sco 46'51.90"	
2023-Dec-06	12:00	2460285.0	4.5317	222°25'29.76"	-6°18'38.65"	+9°32'50.67"	11° Sco 55'38.01"	
2023-Dec-07	12:00	2460286.0	4.5207	222°33'36.17"	-6°21'43.65"	+9°32'17.81"	12° Sco 04'21.84"	
2023-Dec-08	12:00	2460287.0	4.5098	222°41'40.83"	-6°24'46.50"	+9°31'46.12"	12° Sco 13'03.26"	
2023-Dec-09	12:00	2460288.0	4.4988	222°49'43.63"	-6°27'47.15"	+9°31'15.59"	12° Sco 21'42.15"	
2023-Dec-10	12:00	2460289.0	4.4879	222°57'44.43"	-6°30'45.59"	+9°30'46.24"	12° Sco 30'18.38"	
2023-Dec-11	12:00	2460290.0	4.4769	223°05'43.09"	-6°33'41.77"	+9°30'18.05"	12° Sco 38'51.80"	
2023-Dec-12	12:00	2460291.0	4.4659	223°13'39.47"	-6°36'35.67"	+9°29'51.03"	12° Sco 47'22.26"	
2023-Dec-13	12:00	2460292.0	4.4549	223°21'33.39"	-6°39'27.25"	+9°29'25.16"	12° Sco 55'49.58"	
2023-Dec-14	12:00	2460293.0	4.4439	223°29'24.66"	-6°42'16.47"	+9°29'00.46"	13° Sco 04'13.58"	
2023-Dec-15	12:00	2460294.0	4.4328	223°37'13.10"	-6°45'03.29"	+9°28'36.90"	13° Sco 12'34.07"	
2023-Dec-16	12:00	2460295.0	4.4218	223°44'58.52"	-6°47'47.66"	+9°28'14.49"	13° Sco 20'50.86"	
2023-Dec-17	12:00	2460296.0	4.4107	223°52'40.75"	-6°50'29.53"	+9°27'53.22"	13° Sco 29'03.77"	
2023-Dec-18	12:00	2460297.0	4.3996	224°00'19.65"	-6°53'08.86"	+9°27'33.09"	13° Sco 37'12.66"	
2023-Dec-19	12:00	2460298.0	4.3886	224°07'55.09"	-6°55'45.61"	+9°27'14.07"	13° Sco 45'17.39"	
2023-Dec-20	12:00	2460299.0	4.3775	224°15'26.93"	-6°58'19.77"	+9°26'56.17"	13° Sco 53'17.86"	
2023-Dec-21	12:00	2460300.0	4.3664	224°22'55.07"	-7°00'51.31"	+9°26'39.38"	14° Sco 01'13.92"	
2023-Dec-22	12:00	2460301.0	4.3552	224°30'19.38"	-7°03'20.22"	+9°26'23.69"	14° Sco 09'05.48"	
2023-Dec-23	12:00	2460302.0	4.3441	224°37'39.72"	-7°05'46.47"	+9°26'09.10"	14° Sco 16'52.39"	
2023-Dec-24	12:00	2460303.0	4.3330	224°44'55.95"	-7°08'10.06"	+9°25'55.59"	14° Sco 24'34.51"	
2023-Dec-25	12:00	2460304.0	4.3218	224°52'07.89"	-7°10'30.94"	+9°25'43.17"	14° Sco 32'11.66"	
2023-Dec-26	12:00	2460305.0	4.3106	224°59'15.37"	-7°12'49.10"	+9°25'31.83"	14° Sco 39'43.67"	

2023-Dec-27	12:00	2460306.0	4.2995	225°06'18.20"	-7°15'04.48"	+9°25'21.56"	14° Sco 47'10.35"	
2023-Dec-28	12:00	2460307.0	4.2883	225°13'16.19"	-7°17'17.05"	+9°25'12.36"	14° Sco 54'31.51"	
2023-Dec-29	12:00	2460308.0	4.2770	225°20'09.17"	-7°19'26.76"	+9°25'04.23"	15° Sco 01'46.97"	
2023-Dec-30	12:00	2460309.0	4.2658	225°26'56.94"	-7°21'33.57"	+9°24'57.16"	15° Sco 08'56.53"	
2023-Dec-31	12:00	2460310.0	4.2546	225°33'39.31"	-7°23'37.42"	+9°24'51.15"	15° Sco 16'00.01"	