

**Supplementary Online Material for “Earth-based Stellar Occultation Predictions for Jupiter, Saturn,  
Uranus, Neptune, Titan, and Triton: 2023–2050”**

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1. TRITON PREDICTION TABLES

Table 1. Geocentric Triton Occultation Predictions 2023 – 2050 for  $K \leq 15$ 

Event ID	C/A Epoch	ICRS Star Coord at Epoch	$\sigma(\alpha_*)$ (km)	C/A (mas)	C/A <sub>p</sub> (″)	PA (deg)	K	G	RP	E $\lambda$ (deg)	S-G-T
Event type	Source ID	Geocentric Object Position	$\sigma(\delta_*)$ (km)	C/A (km)	C/A <sub>p</sub> ( $10^3$ km)	$v_{\text{sky}}$ (km/s)	Dist (au)	G <sub>*</sub>	DUP	$\phi$ (deg)	M-G-T
Tr25001	2025-09-17 06:07:07.37	00 04 15.18297 -01 01 59.70659	50.4	31.6	9.0	163.16	14.288	18.519	17.207	273.2	173.6
P <sub>g</sub>	2449604188905639040	00 04 15.18358 -01 01 59.73679	32.8	661.0	188.0	-20.71	28.887	18.557	0	-0.9	119.5
Tr25002	2025-11-12 16:45:45.85	23 59 18.61005 -01 33 51.53200	19.0	120.8	13.6	335.68	14.615	17.226	16.431	56.7	129.0
P	2449519290288023168	23 59 18.60673 -01 33 51.42195	13.6	2562.3	288.8	-16.49	29.255	17.017	0	-1.4	146.6
Tr27001	2027-01-05 23:14:15.27	00 07 19.05139 -00 42 13.10351	11.0	286.7	8.3	143.12	13.210	15.225	14.581	268.3	76.4
P	2545699104287361664	00 07 19.06286 -00 42 13.33285	6.6	6257.3	181.7	16.01	30.090	14.983	0	-0.6	96.6
Tr29001	2029-01-16 16:21:20.60	00 24 10.27298 +01 02 14.46954	7.1	200.4	15.5	335.99	12.537	14.375	13.765	4.7	69.5
P	2547000135781016320	00 24 10.26755 +01 02 14.65264	6.0	4388.9	339.9	18.26	30.190	14.276	0	1.2	47.0
Tr29002	2029-06-08 11:30:48.14	00 40 29.16671 +02 45 54.80459	9.1	269.8	6.6	352.41	9.849	11.026	10.601	300.7	67.2
P	2550622133240584704	00 40 29.16433 +02 45 55.07274	6.2	5916.6	145.4	14.47	30.240	10.675	0	2.9	26.4
Tr29003*	2029-06-11 05:23:26.00	00 40 39.44754 +02 46 59.57364	51.2	234.4	7.0	329.29	10.259	11.883	11.368	29.8	69.8
Pt	2550622232023925632	00 40 39.43955 +02 46 59.77603	44.5	5133.7	154.4	18.77	30.193	11.814	0	2.9	59.1
Tr31001	2031-02-07 20:42:33.71	00 42 01.57927 +02 52 55.87517	13.0	154.7	15.4	336.22	11.685	14.946	13.845	282.5	52.4
P	2550443668759500416	00 42 01.57511 +02 52 56.01671	12.0	3415.0	339.6	25.85	30.443	15.225	0	3.1	131.1
Tr31002	2031-10-08 15:33:58.35	00 53 02.38231 +03 55 24.67432	14.9	53.7	6.6	150.84	13.682	15.137	14.624	123.1	178.1
Pgt	2551697971008471808	00 53 02.38406 +03 55 24.62743	12.9	1123.6	138.6	-27.61	28.852	15.487	0	4.1	93.0
Tr35001	2035-10-05 12:01:09.75	01 27 43.93686 +07 20 07.74648	25.8	98.8	10.9	333.31	13.049	15.808	14.941	188.1	168.5
Pt	2566175343690470144	01 27 43.93388 +07 20 07.83479	10.9	2068.4	228.5	-26.74	28.856	16.124	0	7.5	144.4
Tr35002	2035-10-10 14:17:23.75	01 27 12.82180 +07 17 09.94514	11.3	112.7	5.6	330.87	12.862	14.332	13.809	148.9	173.5
Pt	2566173934941174400	01 27 12.81811 +07 17 10.04359	5.7	2357.8	116.5	-27.10	28.844	14.662	0	7.5	83.4
Tr36001	2036-06-04 12:56:48.45	01 37 13.19027 +08 20 50.47105	8.1	251.0	5.3	153.15	11.032	13.163	12.496	297.0	48.4
P	2571920768686360320	01 37 13.19791 +08 20 50.24710	4.8	5551.2	118.3	27.85	30.492	13.522	0	8.5	175.8
Tr36002	2036-10-31 15:29:17.39	01 33 36.61897 +07 53 32.49827	73.2	200.6	14.8	153.57	14.428	17.691	16.693	111.0	166.2
Pt	2565881494913346176	01 33 36.62498 +07 53 32.31860	31.8	4200.2	310.0	-24.34	28.865	17.904	0	8.1	26.1
Tr38001	2038-12-21 22:36:10.10	01 46 59.08374 +09 09 42.25470	31.2	59.9	16.3	335.52	13.672	16.290	15.469	317.6	118.5
Pgt	2572227674164976128	01 46 59.08207 +09 09 42.30921	30.1	1274.5	346.5	-8.80	29.336	15.399	0	9.4	174.3
Tr40001	2040-10-05 12:43:39.56	02 11 17.56768 +11 18 16.80792	109.1	16.7	2.7	332.07	14.330	18.364	17.156	187.6	157.8
Pgt	73222698406292608	02 11 17.56715 +11 18 16.82265	118.9	349.3	55.9	-25.39	28.884	18.623	0	11.5	149.6
Tr43001	2043-06-25 09:43:57.52	02 37 43.74095 +13 34 30.89428	65.9	142.6	3.3	173.09	14.023	17.253	16.192	340.6	51.9
Pt	26895600603666432	02 37 43.74213 +13 34 30.75276	66.3	3145.9	72.2	21.37	30.426	17.324	0	13.8	95.7
Tr43002	2043-09-26 17:03:39.54	02 38 45.33322 +13 34 09.93323	37.9	267.6	13.8	334.38	13.201	16.245	15.317	138.9	141.3
P	26892856120403968	02 38 45.32528 +13 34 10.17456	35.0	5632.9	290.7	-19.61	29.019	16.224	0	13.8	63.8
Tr43003	2043-10-02 01:16:09.36	02 38 18.58223 +13 31 54.96788	16.9	13.3	16.9	339.82	12.025	14.776	13.924	10.4	146.7
P <sub>g</sub>	26891550450337792	02 38 18.58192 +13 31 54.98040	14.6	280.3	354.5	-19.59	28.966	14.753	0	13.7	134.2
Tr43004	2043-12-05 15:50:18.42	02 31 40.83793 +13 00 20.93616	51.9	314.9	16.9	342.80	14.477	16.753	16.100	86.6	146.9
P	26451058604260992	02 31 40.83156 +13 00 21.23697	46.5	6618.0	354.7	-19.38	28.977	16.719	0	13.2	102.5
Tr45001	2045-10-24 10:18:54.48	02 54 06.15989 +14 43 04.64022	15.6	36.6	4.5	335.59	12.768	14.121	13.647	216.2	165.2
Pgt	32518438644356608	02 54 06.15885 +14 43 04.67357	11.2	766.4	94.1	-26.44	28.851	14.424	0	14.9	32.3
Tr46001	2046-03-02 05:33:32.53	02 48 29.27402 +14 23 42.02432	105.5	282.4	11.7	168.18	14.585	17.799	16.743	159.2	62.9
P	32087322711430784	02 48 29.27800 +14 23 41.74795	87.2	6195.4	257.7	17.08	30.252	17.628	0	14.6	123.1
Tr48001	2048-01-06 07:30:10.46	03 05 20.15502 +15 33 34.13969	23.0	5.1	16.7	348.41	11.666	14.919	13.891	188.9	123.3
Pgt	30958747040513152	03 05 20.15495 +15 33 34.14473	18.4	109.2	354.8	-11.25	29.265	14.294	0	15.7	115.3
Tr48002	2048-07-13 16:27:44.57	03 22 56.20484 +16 46 51.21500	55.8	7.8	2.3	358.27	14.285	16.472	15.799	232.2	58.6
P <sub>g</sub>	54599793226129664	03 22 56.20482 +16 46 51.22279	43.0	171.5	50.4	18.41	30.336	16.382	0	17.0	86.9