

12P/Pons-Brooks						
Data 2024	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	r	m	
	h m s	° ' "				
I 21	20 40 06.9	+38 06 35	2.033	1.739	10.1	
31	21 18 22.0	+38 15 45	1.928	1.606	9.5	
II 10	22 01 16.7	+38 06 50	1.833	1.473	8.8	
20	22 48 24.1	+37 22 27	1.753	1.341	8.1	
III 1	23 38 26.9	+35 43 40	1.690	1.211	7.4	
11	0 29 22.3	+32 55 40	1.647	1.086	6.6	
21	1 18 48.8	+28 52 30	1.622	0.972	5.9	
31	2 04 51.9	+23 38 22	1.612	0.876	5.2	
IV 10	2 46 35.9	+17 26 55	1.609	0.809	4.7	
20	3 24 07.1	+10 37 36	1.606	0.781	4.4	

C/2021 S3 (PANSTARRS)						
Data 2024	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	r	m	
	h m s	° ' "				
I 1	14 50 29.3	-37 40 32	1.878	1.477	8.6	
11	15 26 38.4	-35 12 08	1.763	1.418	8.2	
21	16 02 10.5	-31 39 22	1.652	1.371	8.0	
31	16 36 38.1	-26 55 53	1.547	1.338	7.7	
II 10	17 09 40.5	-20 58 14	1.454	1.322	7.5	
20	17 41 00.8	-13 48 25	1.379	1.323	7.4	
III 1	18 10 28.9	- 5 37 25	1.326	1.340	7.4	
11	18 37 56.0	+ 3 13 31	1.300	1.373	7.4	
21	19 03 10.5	+12 15 26	1.303	1.421	7.6	
31	19 26 02.5	+20 58 45	1.333	1.481	7.8	
IV 10	19 46 18.0	+29 01 33	1.385	1.552	8.1	
20	20 03 38.5	+36 11 33	1.454	1.631	8.4	
30	20 17 45.8	+42 25 27	1.534	1.718	8.8	
V 10	20 28 15.6	+47 45 20	1.620	1.809	9.1	
20	20 34 41.3	+52 14 19	1.708	1.905	9.5	
30	20 36 41.3	+55 55 26	1.795	2.004	9.8	
VI 9	20 33 59.5	+58 50 15	1.881	2.106	10.1	
19	20 26 44.8	+60 58 06	1.963	2.209	10.4	

C/2023 A3 (Tsuchinshan-ATLAS)						
Data 2024	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	r	m	
	h m s	° ' "				
X 7	12 12 14.3	- 4 08 15	0.552	0.465	0.4	
17	15 37 26.9	+ 1 16 09	0.517	0.637	1.6	
27	17 32 10.1	+ 3 26 41	0.805	0.830	3.7	
XI 6	18 18 23.9	+ 3 52 26	1.152	1.022	5.4	
16	18 43 28.0	+ 4 04 05	1.491	1.207	6.7	
26	19 00 37.4	+ 4 19 03	1.808	1.386	7.7	
XII 6	19 14 09.2	+ 4 41 31	2.101	1.557	8.5	
16	19 25 41.1	+ 5 12 33	2.367	1.723	9.2	
26	19 35 55.8	+ 5 52 09	2.606	1.884	9.8	
2025 I 5	19 45 12.9	+ 6 40 17	2.817	2.039	10.3	







