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ACCURATE POSITIONS OF SUSPECTED VARIABLE STARS NEAR THE SOUTH GALACTIC POLE

Positions for 142 suspected variable stars located around the South Galactic Pole were obtained by measuring the first-epoch plates of the Yale-San Juan Southern Proper Motion Survey. The average error of the new positions is 0.″7 in R.A. and Dec. as referenced to the system of the SRS.

This project is a continuation of a program started by Lopez and Girard (1990). The authors have measured variables and suspected variables in a region around the South Galactic Pole (SGP). The region centered on a R.A. of 0 hours extends approximately 2 hours on either side. The declination extends approximately from $-20°$ to $-45°$. Derived positions of the variables in this region are presented in the previous issue of the IBVS.

In a conversation with Dr. Hoffleit, it was suggested that the bright stars without a finder chart could be located relative to the field stars on the Cordoba Atlas. Using a cutoff magnitude of 10, along with the published position and the references as printed in the NSV catalogue (Kukarkin et al., 1982) the stars were located on the CoD charts. A total of 73 suspected variables were located in this manner and are indicated in the table by the letter (p) under comments.

The results, listed in Table 1, contain the following information: Suspected variable name, newly determined R.A. and Dec. (Equinox B1950 with epochs in the range of 1965.6 to 1973.8), the differences between our new positions (B1950) and those quoted in the NSV in minutes of time in right ascension and arc minutes in declination ($\Delta\alpha$, $\Delta\delta$), and comments.

As before, we wish to thank Terry Girard, Dorrit Hoffleit, Imants Platais, Carlos Lopez, Michael Dzubaty, and especially William van Altena for their guidance and support.

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References:

Kukarkin, B.V., et al., 1982, New Catalogue of Suspected Variable Stars, (Moscow: Nauka Publishing House)

Lopez, C.E., and Girard, T.M., 1990, *PASP*, **102**, No. 655, 1018

Table 1. Positions of Suspected Variable Stars

Variable NSV	α (1950) h	m	s	δ (1950) °	′	″	$\Delta\alpha$ m	$\Delta\delta$ ′	Comments
00014	0	2	2.006	−18	48	9.56	0.000	0.141	(p) (264.1932)
00029	0	3	48.133	−35	33	55.38	−0.048	−0.923	
00046	0	5	13.817	−22	47	14.19	0.014	−0.037	(p) CoD −23°00013B
00051	0	6	0.444	−17	51	20.83	0.007	−0.047	(p) BD −18°0115
00056	0	6	43.375	−46	49	10.15	0.040	0.131	
00096	0	11	10.209	−26	18	0.37	0.003	−0.106	(p) CoD −26°00056
00113	0	14	10.224	−20	29	15.27	0.004	0.045	(p) BD −21°0024
00139	0	18	51.789	−46	1	0.46	−0.004	−0.208	
00198	0	31	11.938	−44	5	46.86	0.016	0.019	(p) CoD −44°00135
00199	0	31	19.963	−17	47	15.09	−0.001	0.148	
00207	0	31	53.800	−43	16	35.45	−0.403	−1.591	
00215	0	32	53.382	−21	17	14.54	0.090	−0.242	
00216	0	32	54.577	−22	1	10.94	0.010	−0.082	(p) CoD −22°00177
00232	0	35	26.792	−40	8	28.84	−0.003	0.119	
00252	0	37	55.351	−21	51	1.42	0.006	−0.024	
00254	0	37	53.727	−37	6	57.86	−0.038	0.136	
00272	0	41	4.561	−18	15	36.68	−0.007	−0.011	(p) (Beta Cet)
00282	0	42	7.216	−19	13	17.39	0.004	0.110	(p) BD −19°0111
00285	0	42	36.658	−19	10	39.39	0.028	−0.256	
00294	0	44	22.624	−18	25	17.26	−0.006	0.012	
00336	0	51	12.680	−41	36	49.94	−0.039	0.168	
00341	0	52	1.684	−35	40	19.84	−0.005	0.069	(p) CoD −36°00312
00370	0	58	51.158	−44	32	29.01	−0.014	1.017	
00383	1	1	1.129	−43	24	50.61	−0.048	−0.244	(p) CoD −43°00297
00390	1	1	59.217	−25	52	12.72	0.004	−0.112	(p) CoD −26°00348
00398	1	3	40.947	−26	20	54.30	−0.001	0.195	
00404	1	4	38.152	−29	52	56.79	0.003	−0.047	
00420	1	7	35.003	−44	34	51.71	−0.100	−0.162	
00431	1	8	59.498	−42	56	44.79	−0.008	0.053	(p) CoD −4300346
00441	1	11	3.760	−47	15	23.26	−0.021	0.112	
00443	1	11	15.961	−26	33	0.86	−0.017	0.086	
00455	1	14	20.469	−40	5	43.55	−0.042	−0.326	
00456	1	14	25.855	−45	35	45.72	−0.002	−0.262	
00464	1	16	3.872	−25	26	35.50	−0.002	0.008	(p) CoD −25°00517
00465	1	16	31.592	−43	35	45.54	0.010	0.041	(p) CoD −43°00386
00483	1	19	17.921	−41	54	50.67	0.032	−0.244	(p) CoD −42°00469
00488	1	20	12.506	−43	51	48.09	0.008	0.098	(p) CoD −44°00388
00500	1	22	24.627	−45	58	52.88	0.010	−0.081	(p) CoD −46°00391
00503	1	23	9.158	−26	43	2.66	0.003	0.056	(p) CoD −27°0478
00508	1	23	32.876	−40	11	44.74	−0.085	−0.746	
00518	1	25	32.080	−23	17	12.86	0.001	0.086	
00546	1	30	28.509	−19	17	42.30	−0.008	0.195	
00556	1	32	42.451	−30	9	59.13	0.008	0.015	
00562	1	33	27.309	−17	47	9.73	0.005	−0.062	
00570	1	34	56.696	−35	14	33.82	−0.022	−0.064	
00576	1	36	8.028	−23	10	24.23	0.017	−0.104	(p) CoD −23°00604
00577	1	36	30.231	−18	12	30.44	0.087	0.193	
00579	1	36	58.256	−29	16	32.45	0.004	−0.041	(p) CoD −29°00542
00581	1	37	6.776	−33	19	32.74	−0.004	−0.046	
00595	1	39	28.493	−45	40	17.13	0.008	0.014	(p) CoD −46°00473

Table 1 (cont.)

Variable NSV	α (1950) h m s	δ (1950) ° ′ ″	$\Delta\alpha$ m	$\Delta\delta$ ′	Comments
00601	1 40 5.616	−22 31 35.12	0.044	−0.285	
00605	1 40 20.602	−46 55 58.29	−0.007	0.028	(p) CoD −47°00513
00617	1 43 9.054	−18 8 40.91	0.001	0.018	
00634	1 48 10.038	−17 53 50.38	0.001	−0.240	(p) BD −18°0316
00639	1 49 31.168	−43 25 23.33	0.003	0.111	
00643	1 50 11.562	−41 50 30.60	0.009	−0.010	(p) CoD −42°0654
00665	1 53 7.754	−36 2 51.37	−0.004	0.044	(p) CoD −36°00732
00673	1 54 13.268	−34 37 2.50	−0.029	0.158	
00675	1 54 28.722	−21 26 20.03	0.012	0.066	
00677	1 54 52.716	−17 55 13.30	0.012	−0.022	(p) BD −18°0336
00690	1 57 16.851	−31 43 48.65	0.014	0.289	
00703	1 59 9.947	−37 19 15.40	−0.001	−0.057	(p) CoD −37°00777
00708	2 0 9.255	−31 37 22.34	0.004	0.028	(p) CoD −31°00827
00712	2 1 30.956	−17 45 10.35	−0.001	−0.073	(p) BD −18°0356
00716	2 1 55.513	−45 39 10.87	0.009	0.019	(p) CoD −46°00604
00732	2 6 23.361	−18 0 55.35	0.006	−0.023	(p) BD −18°0374
00750	2 10 27.923	−17 55 19.34	0.015	0.078	(p) Yale 456.1
00757	2 11 42.226	−32 16 22.76	0.037	−0.379	(p) CoD −32°0828
13881	21 44 54.731	−40 29 7.40	−0.004	−0.123	(p) CoD −40°14498
13885	21 46 21.208	−34 26 18.64	0.020	−0.511	(p) CoD −34°15271
13890	21 47 42.358	−28 2 39.11	0.006	0.148	(p) CoD −28°17474
13893	21 48 20.226	−41 49 7.13	0.037	−0.119	
13956	21 52 38.335	−23 31 36.51	0.006	−0.009	(p) CoD −23°17167
13977	21 55 28.432	−45 58 59.96	−0.009	0.001	
13981	21 55 42.241	−44 33 51.93	0.087	−1.566	(SV Gru)
14019	22 2 36.963	−47 38 57.23	0.033	−0.254	
14027	22 3 38.797	−45 38 3.54	0.013	−0.159	(p) CoD −45°14576
14073	22 10 29.155	−40 58 23.88	0.003	−0.198	
14108	22 15 42.449	−23 34 55.40	0.007	−0.123	(p) CoD −23°17361
14123	22 18 9.069	−44 19 0.53	0.018	−0.409	(BI Gru)
14141	22 20 46.288	−20 34 0.65	0.005	−0.011	
14151	22 22 51.322	−37 47 44.30	−0.011	−0.038	
14155	22 23 8.392	−47 31 4.77	0.023	−0.080	(p) CoD −47°14194
14156	22 23 24.601	−37 46 36.85	0.043	0.386	
14174	22 26 51.001	−36 1 6.09	0.017	−0.302	
14175	22 26 58.616	−27 21 49.51	−0.006	−0.025	(p) CoD −27°15932
14176	22 27 19.704	−28 25 35.09	0.028	−0.385	
14180	22 28 7.304	−26 19 48.97	0.005	−0.016	(p) CoD −26°16175
14184	22 28 28.733	−23 15 13.72	−0.004	−0.029	(p) CoD −23°17470
14190	22 29 0.283	−43 48 18.89	0.005	−0.015	(p) CoD −44°14949
14192	22 29 20.953	−22 32 13.90	0.099	−2.732	(p) CoD −22°15937
14211	22 31 39.515	−44 2 48.73	0.009	0.688	
14217	22 32 11.529	−39 48 22.19	0.009	0.030	
14231	22 32 45.955	−17 30 59.58	−0.017	0.007	(p) BD −18°6151
14256	22 36 1.795	−20 52 28.07	0.013	−0.468	(FL Aqr)
14266	22 37 35.030	−30 55 5.62	0.001	−0.094	(p) CoD −31°18920
14277	22 39 37.799	−47 28 9.16	−0.003	−0.153	(p) CoD −47°14307
14278	22 39 47.050	−44 30 36.33	0.001	−0.006	(p) CoD −44°15017
14283	22 40 17.811	−41 47 43.66	−0.003	−1.728	(p)
14291	22 40 53.831	−19 5 34.59	−0.003	−0.077	(p) BD −19°6324

Table 1 (cont.)

Variable NSV	α (1950) h m s	δ (1950) ° ′ ″	$\Delta\alpha$ m	$\Delta\delta$ ′	Comments
14301	22 41 53.938	−32 13 53.35	−0.018	−0.689	
14302	22 42 5.733	−45 8 25.65	−0.004	−0.028	(p) CoD −45°14790
14314	22 44 20.473	−41 42 1.01	0.041	0.583	
14316	22 44 32.005	−45 13 44.55	0.000	−0.042	
14328	22 46 55.474	−27 22 46.85	−0.009	3.019	
14335	22 49 22.100	−27 56 9.46	−0.032	0.842	
14338	22 49 45.004	−33 8 28.27	0.000	0.029	(p) CoD −33°16270
14367	22 53 27.239	−34 8 50.69	0.004	−0.145	(p) CoD −34°15824
14377	22 55 29.333	−43 41 51.67	−0.044	−0.261	
14385	22 58 30.141	−44 43 18.71	0.002	0.488	
14389	22 58 44.040	−20 6 44.89	0.001	0.452	
14405	23 0 55.883	−27 4 58.93	−0.002	0.018	(p) CoD −27°16160
14415	23 2 0.930	−45 27 34.35	0.032	−0.272	(BN Gru)
14420	23 2 48.473	−36 8 5.70	0.175	0.305	(p) CoD −36°15693
14425	23 4 9.582	−44 10 51.98	0.026	0.034	(BO Gru)
14441	23 7 23.158	−40 51 46.32	0.003	−0.072	(p) CoD −41°15163
14470	23 12 58.962	−24 47 32.01	0.016	−0.434	(p) CoD −25°16357
14476	23 13 48.576	−42 28 50.13	0.010	−0.036	(p) CoD −42°16259
14480	23 14 51.883	−42 27 52.84	0.015	0.019	(p) CoD −42°16263
14507	23 17 32.625	−34 52 57.69	−0.023	−0.062	(p) CoD −35°15744
14530	23 20 0.709	−46 58 0.43	−0.155	−3.007	
14532	23 20 32.009	−37 47 21.12	0.000	−0.052	(p) CoD −38°15466
14558	23 23 41.484	−31 21 26.68	−0.042	0.355	
14602	23 29 39.110	−43 53 21.99	−0.015	−0.167	(p) CoD −44°15273
14603	23 29 41.535	−17 40 24.85	−0.074	0.886	
14630	23 32 52.445	−47 13 8.68	−0.009	−0.145	(p) CoD −47°14628
14643	23 34 43.094	−33 52 58.66	−0.015	−0.078	
14655	23 38 27.501	−42 25 27.65	1.342	0.139	
14661	23 38 0.999	−32 21 1.05	0.000	−0.017	(p) CoD −32°17621
14664	23 37 44.280	−38 35 35.67	−0.695	0.006	
14665	23 38 30.520	−24 26 15.23	−0.008	0.046	(p) CoD −24°17796
14671	23 39 9.978	−18 5 38.13	0.000	0.064	(p) (104 Aqr)
14682	23 40 59.498	−32 23 18.85	−0.025	0.086	(p) CoD −32°17640
14697	23 43 25.946	−35 52 0.09	0.016	−0.602	
14701	23 43 48.114	−45 1 40.88	0.002	0.019	(p) CoD −45°15126
14722	23 47 8.415	−43 33 48.45	0.007	−0.008	(p) CoD −43°15514
14750	23 52 5.100	−31 2 48.88	0.002	−0.015	(p) CoD −31°19504
14772	23 54 33.729	−26 54 6.96	−0.005	−0.016	(p) CoD −27°16494
14780	23 55 20.726	−42 12 24.84	−0.005	−0.514	