

IDENTIFICATION CHARTS OF PHL OBJECTS II. A FIELD OF APPROXIMATELY 40 SQUARE DEGREES CENTERED AT 0^h 04^m AND + 6.5° (1950)¹

Enrique Chavira

Instituto Nacional de Astrofísica, Óptica y Electrónica
Tonantzintla, Pue. México

Received 1988 August 3

RESUMEN

Se continúa la presentación de las cartas de identificación de los objetos azules descubiertos por Haro y Luyten utilizando las placas obtenidas con la cámara Schmidt de 48" de Monte Palomar, en dirección del polo sur galáctico.

ABSTRACT

We continue presenting identification charts of the list of stars discovered by Haro and Luyten, on Palomar Schmidt plates, in the direction of the South Galactic Pole (PHL).

The objects listed here were found in the plate centered on 0^h 04^m and +6.5° (1950). We give their PHL numbers, approximate coordinates and identification charts. The tables contain very definitely blue stars, blue stars, bluish or white stars.

Key words: STARS-BLUE – QUASARS

1. THE SEARCH FOR PHL OBJECTS

This is one of the series of papers where identification charts of the PHL objects in the survey of the Southern Galactic Pole are presented. Haro and Chavira (1987) in the first paper of the series discuss the material.

The main purpose of the original research was to obtain a large number of blue objects for statistical studies (Iriarte and Chavira 1957; Chavira 1958, 1959; Haro and Luyten 1962). These authors upon examination of the three-image exposure plates (*U, B, V*) taken with the Tonantzintla Schmidt camera and the Mount Palomar Schmidt had classified the objects into very blue, blue, and bluish, or white stars. In this work we present the identification of the blue PHL objects as a help to observers for photometry, spectra, proper motions, radio fluxes, etc.

We are presenting the list of stars and the corresponding identification charts for the PHL field centered on 0^h 04^m and +6.5° (1950).

Among the blue objects there could be a good number of QSO (quasi stellar objects), compact galaxies, main-sequence B and A type stars, white dwarfs, subdwarfs, planetary nebulae, eruptive variables of the U Geminorum and Z Camelopardalis types, flare stars, etc.

1. Paper dedicated to the memory of Prof. Guillermo Haro, as tribute of admiration for his outstanding scientific work in Astronomy.

In Table 1, we select PHL objects with large redshifts: $1.08 < Z < 3.14$; those redshifts have been obtained by different authors and have been catalogued by Hewitt and Burbidge (1987). The more precise coordinates listed here, are from Hewitt and Burbidge (1987). Tables 2, 3, and 4 contain the corresponding very definitely blue stars, blue stars, bluish or white stars with their original PHL numbers, approximate equatorial coordinates (error R.A. $\pm 6''$, Dec. $\pm 30''$) (1950), galactic coordinates, magnitudes, and estimated color differences taken from the three different tables of Haro and Luyten (1962). It should be pointed out that the photometry listed in Tables 2, 3 and 4 are rough estimates obtained from photographic plates. Thus, they are not actually in the Johnson *UBV*-system; the last column in each of the tables, gives the number of the figure (from 1 to 12) in which the different stars are marked. It must be noted that a considerable overlap exists among the figures.

To guide the reader we include a rough diagram (Figure 13), showing the distribution of the figures which cover the whole field of the corresponding Mount Palomar Schmidt plate. In all cases north is at the top and west at right.

This work was carried out with Guillermo Haro. We are also thankful to Drs. A. Serrano, S. Torres-Peimbert for their support and to P. Pismis for critical reading of the manuscript. Financial assistance was received through grant COSNET 702.87 of SEP.

TABLE 1

PHL OBJECTS 1.08 < Z < 3.14

PHL	RA	(1950)	Dec.	V	Z (em)	PHL	RA	(1950)	Dec.	V	Z(em)
61	21 34	05.28	+ 00 28 25	16.79	1.936	938	0 58	19.7	+ 01 55 28	17.6	1.955
5200	22 25	54.02	- 05 34 16.6	17.7	1.981	957	1 00	33.9	+ 13 00 10.6	16.57	2.681
553	23 29	03	- 02 00 04	17	(1.90)						
650	0 02	46.3	+ 05 07 29	16.21	1.899	3400	1 29	34.5	- 02 11 56	18.6	1.39
6304	0 05	27.43	- 23 56 06	16.47	1.407	3424	1 31	08.08	+ 05 32 32.2	18.25	1.847
						3470	1 33	45.1	+ 01 11 52	18.7	1.43
767	0 14	11.0	- 04 20 51		1.96	3582	1 37	45.3	- 01 53 14	18.5	2.24
2871	0 17	49.83	+ 15 24 16.5	18.21	2.012	3632	1 39	57.73	+ 06 10 33.6	18.15	1.479
6612	0 43	39.5	+ 00 48 03	17	2.143						
2969	0 44	45.6	+ 01 31 52	18.3	1.59	3665	1 41	12.1	+ 02 26 29	18.7	1.42
841	0 45	45.35	- 00 01 23.3	19.4	1.536	1127	1 41	33.13	+ 05 15 14.8	18.29	1.99
						3700	1 42	27.3	+ 00 45 01	18.3	1.93
2989	0 46	26.37	- 06 44 51.2	18	2.063	3703	1 42	48.6	- 10 00 13	17.0	2.72
847	0 46	34.42	+ 15 24 04.5	17.9	1.243	7756	1 43	18.2	- 01 35 30	18.8	3.14
857	0 48	29	- 01 19 02	17.9	1.87						
3041	0 49	23.6	- 00 12 22	18	(1.39)	3828	1 47	07.4	+ 01 56 46	17.7	1.39
868	0 49	28.4	+ 00 45 13	17.8	2.27	1222	1 51	17.43	+ 04 48 15.1	17.63	1.903
						1305	2 26	22.06	- 03 50 58	16.96	2.064
895	0 52	21.3	+ 00 58 58	18	(2.29)	1377	2 32	36.55	- 04 15 10.2	16.46	1.436
915	0 55	23.36	+ 15 37 03.7	18.4	1.263	8462	2 37	57.72	- 23 22 08.5	16.63	2.223
921	0 56	03.42	+ 12 40 07.2	17.9	1.088						

TABLE 2

VERY DEFINITELY BLUE STARS

PHL	RA	(1950)	Dec.	l	b	m _{pg}	B - V	U - B	Fig.
583	23	52.4	6 16	98.8	-53.7	17.1	-0.2	-0.3	2
585		52.8	7 16	99.6	-52.8	18.4	-0.1	-0.4	2
589		53.9	3 24	97.5	-56.5	18.3	-0.2	-0.4	1
590		54.0	8 16	100.6	-51.9	18.1	-0.1	-0.3	3
595		55.0	8 54	101.3	-51.4	17.9	-0.2	-0.2	3
596		55.0	4 41	98.8	-55.4	17.6	-0.2	-0.3	1
597		55.0	4 10	98.5	-55.8	18.2	-0.1	-0.3	1
604		56.2	5 16	99.7	-54.9	18.2	-0.2	-0.3	1
613		57.4	8 11	101.8	-52.3	18.3	-0.1	-0.3	3
616		57.5	9 06	102.3	-51.4	18.4	-0.1	-0.3	3
634	00	00.2	7 22	102.5	-53.3	17.8	-0.1	-0.4	5
637		00.6	7 00	102.4	-53.7	18.2	-0.2	-0.4	5
642		01.4	9 20	103.9	-51.5	18.0	-0.1	-0.3	6
650		02.8	5 06	102.3	-55.6	16.3	-0.2	-0.4	4
651		02.8	3 20	101.3	-57.3	17.9	-0.1	-0.3	4
655		03.2	6 33	103.3	-54.3	16.7	-0.1	-0.4	5
664		04.0	7 56	104.3	-53.0	17.1	-0.2	-0.4	6
669		04.4	6 28	103.7	-54.5	18.7	-0.1	-0.3	5
670		04.4	6 09	103.5	-54.8	16.2	-0.2	-0.4	5,8
674		04.8	4 30	102.8	-56.4	18.3	-0.1	-0.5	4
675		04.9	6 02	103.7	-54.9	18.2	-0.1	-0.4	5,8
680		05.2	8 05	104.8	-53.0	17.1	-0.2	-0.2	6
683		05.3	6 27	104.1	-54.5	17.8	-0.1	-0.3	5
684		05.4	5 10	103.4	-55.8	17.0	-0.1	-0.3	4
685		05.6	8 02	104.9	-53.0	16.6	-0.2	-0.4	6

TABLE 2 (CONTINUED)

PHL	RA (1950) Dec.		1	b	m _{pg}	B - V	U - B	Fig.
688	05.9	4 55	103.5	-56.0	17.9	-0.1	-0.4	4
689	06.0	7 36	104.9	-53.5	18.4	-0.2	-0.3	5,8
697	07.2	4 27	103.8	-56.6	18.8	-0.1	-0.4	7
705	08.0	9 29	106.5	-51.8	16.4	-0.2	-0.4	9
706	08.0	9 10	106.4	-52.1	17.8	-0.2	-0.3	9
713	08.4	4 20	104.3	-56.8	18.0	-0.2	-0.4	7
716	08.7	5 01	104.8	-56.2	18.1	-0.1	-0.3	7
720	09.2	5 26	105.2	-55.8	18.3	-0.2	-0.3	7
728	09.9	4 20	104.9	-56.9	18.0	-0.1	-0.3	7
732	10.4	6 09	106.0	-55.2	18.2	-0.2	-0.2	11
736	11.3	9 17	107.7	-52.2	17.6	-0.2	-0.3	12
738	11.6	3 58	105.5	-57.4	18.2	-0.1	-0.3	10
741	12.0	7 48	107.4	-53.7	16.8	-0.2	-0.4	12
745	12.4	5 16	106.5	-56.2	18.1	-0.2	-0.3	10
747	12.6	7 54	107.7	-53.6	16.6	-0.1	-0.4	12
758	13.6	3 44	106.2	-57.7	18.9	-0.1	-0.3	10
762	13.8	8 04	108.2	-53.5	18.2	-0.2	-0.2	12
766	14.2	6 48	107.9	-54.8	16.3	-0.2	-0.4	11
782	16.4	4 34	107.9	-57.1	18.5	-0.1	-0.3	10
790	17.0	6 08	108.8	-55.6	15.7	-0.2	-0.4	11

TABLE 3

BLUE STARS

PHL	RA (1950) Dec.		1	b	m _{pg}	U - V	Fig.
2441	23	51.9 6 50	98.9	-53.1	16.8	-0.3	2
2444		52.6 7 57	99.9	-52.1	18.4	-0.2	3
2450		52.7 8 24	100.2	-51.7	18.6	-0.3	3
2453		53.0 4 32	97.9	-55.3	18.5	-0.2	1
2457		53.7 7 46	100.2	-52.4	16.6	-0.2	3
2458		53.7 4 02	97.9	-55.9	18.4	-0.3	1
2463		54.0 4 22	98.2	-55.6	18.7	-0.2	1
2464		54.0 5 21	98.9	-54.7	18.7	-0.2	1
2466		54.2 8 47	100.9	-51.5	18.6	-0.3	3
2467		54.2 7 10	100.0	-53.0	18.0	-0.3	2
2471		54.4 5 10	98.9	-54.9	17.3	-0.3	1
2475		54.7 5 24	99.2	-54.7	18.4	-0.3	1
2477		54.9 8 44	101.2	-51.6	18.5	-0.2	3
2480		55.0 6 34	100.0	-53.6	18.6	-0.3	2
2482		55.3 6 02	99.8	-54.1	18.3	-0.2	2
2483		55.3 8 16	101.1	-52.0	18.6	-0.3	3
2485		55.4 7 32	100.7	-52.7	18.7	-0.3	3
2488		56.0 3 50	98.7	-56.3	18.3	-0.2	1
2490		56.1 7 10	100.8	-53.1	18.3	-0.2	2
2500		56.6 7 08	100.9	-53.2	17.0	-0.2	2

TABLE 3 (CONTINUED)

PHL	RA (1950) Dec.		1	b	mpg	U - V	Fig.
2501	56.6	8 12	101.5	-52.2	18.4	-0.2	3
2509	57.2	8 02	101.7	-52.4	18.6	-0.2	3
2510	57.2	7 10	101.2	-53.2	18.6	-0.2	2
2512	57.3	6 56	101.1	-53.5	18.7	-0.3	2
2515	57.4	8 35	102.0	-51.9	18.3	-0.3	3
2517	57.5	6 44	101.1	-53.7	18.7	-0.2	2
2519	57.6	6 32	101.0	-53.9	17.9	-0.2	2
2526	58.0	3 56	99.6	-56.3	18.2	-0.2	1
2535	58.4	7 08	101.6	-53.4	18.6	-0.2	2
2542	58.7	8 03	102.3	-52.5	18.6	-0.3	3
2543	58.8	6 16	101.3	-54.2	17.0	-0.2	2
2546	59.0	5 12	100.8	-55.2	17.2	-0.3	1
2547	59.0	3 48	99.9	-56.6	18.3	-0.3	1
2560	59.8	9 20	103.3	-51.4	18.6	-0.2	6
2561	59.8	7 16	102.3	-53.3	18.2	-0.2	5
2563	59.8	7 16	102.3	-53.3	18.1	-0.3	5
2574	00.7	5 42	101.8	-54.9	18.4	-0.2	4
2584	01.0	6 36	102.4	-54.1	17.9	-0.3	5
2587	01.2	8 26	103.4	-52.3	18.5	-0.3	6
2608	02.4	6 16	102.8	-54.5	18.2	-0.2	5
2612	02.6	7 54	103.7	-53.0	18.6	-0.2	6
2617	02.7	6 56	103.3	-53.9	18.1	-0.3	5
2627	03.6	8 41	104.5	-52.3	17.0	-0.2	6
2630	03.6	7 38	104.0	-53.3	18.0	-0.3	5
2631	03.7	6 45	103.6	-54.1	18.7	-0.2	5
2633	03.8	3 24	101.8	-57.3	18.6	-0.2	4
2646	04.3	4 04	102.4	-56.7	18.1	-0.2	4
2649	04.4	4 14	102.5	-56.6	18.6	-0.2	4
2650	04.4	3 59	102.4	-56.8	18.4	-0.2	4
2653	04.6	4 43	102.9	-56.1	17.1	-0.2	4
2656	04.8	4 02	102.6	-56.8	18.4	-0.3	4
2659	05.0	5 20	103.4	-55.6	18.5	-0.2	4
2664	05.2	5 34	103.6	-55.4	18.5	-0.3	4
2669	05.7	8 18	105.1	-52.8	18.3	-0.2	6,9
2675	06.2	4 22	103.4	-56.6	18.4	-0.2	7
2688	07.6	6 00	104.8	-55.1	18.6	-0.2	8
2701	08.5	6 00	105.2	-55.2	18.6	-0.3	8
2703	08.6	6 06	105.3	-55.1	18.5	-0.3	8
2710	09.0	4 58	104.9	-56.2	17.7	-0.3	7
2716	09.3	4 46	104.9	-56.4	18.3	-0.2	7
2721	09.5	9 18	107.0	-52.1	18.5	-0.2	9
2724	09.8	9 36	107.3	-51.8	18.2	-0.2	9
2726	9.8	3 38	104.5	-57.6	13.6	-0.3	7
2732	10.2	6 24	106.1	-54.9	17.5	-0.2	11
2733	10.2	5 58	105.9	-55.3	18.4	-0.2	11
2749	10.9	7 32	106.8	-53.9	18.3	-0.2	12
2759	11.4	6 50	106.8	-54.6	18.7	-0.3	11
2777	12.6	4 32	106.2	-56.9	18.2	-0.2	10
2780	12.6	3 50	105.9	-57.6	18.5	-0.3	10
2788	13.0	5 54	107.0	-55.6	18.5	-0.2	11

TABLE 3 (CONTINUED)

PHL	RA (1950) Dec.		l	b	mpg	U - V	Fig.
2794	13.4	3 43	106.2	-57.7	18.2	-0.2	10
2795	13.4	4 50	106.7	-56.6	18.2	-0.3	10
2803	13.8	5 21	107.1	-56.2	18.3	-0.2	10
2812	14.2	5 32	107.4	-56.0	17.9	-0.3	10
2814	14.4	7 48	108.4	-53.8	17.8	-0.2	12
2815	14.4	8 48	108.8	-52.8	18.5	-0.2	12
2820	14.7	5.05	107.4	-56.5	16.7	-0.3	10
2823	14.8	3 35	106.8	-57.9	18.2	-0.2	10
2827	15.0	7.44	108.6	-53.9	18.4	-0.3	12
2831	15.3	6.36	108.3	-55.0	18.2	-0.2	11
2834	15.4	4 54	107.6	-56.7	17.6	-0.3	10
2842	16.0	5 25	108.1	-56.2	18.5	-0.3	10
2851	16.8	4 56	108.3	-56.7	18.2	-0.2	10

TABLE 4

BLUISH OR WHITE STARS

PHL	RA	(1950) Dec.	l	b	m _{pg}	U - V	Fig.	
6046	23 ^h	52.2	8 08	99.8	-51.9	18.5	-0.1	3
6050		52.4	7 54	99.8	-52.1	18.0	0.0	3
6053		52.4	9 13	100.5	-50.9	18.0	-0.1	3
6061		52.8	7 56	99.9	-52.1	18.2	0.0	3
6067		53.3	4 32	98.0	-55.4	18.3	0.0	1
6068		53.4	8 18	100.4	-51.8	16.1	0.0	3
6071		53.4	8 33	100.5	-51.6	16.8	-0.1	3
6087		54.4	7 44	100.4	-52.5	18.6	-0.1	3
6088		54.4	6 10	99.5	-53.9	18.4	-0.1	2
6089		54.4	6 18	99.6	-53.8	18.2	-0.1	2
6090		54.6	8 55	101.2	-51.4	16.9	0.0	3
6092		54.7	7 00	100.1	-53.2	18.0	0.0	2
6094		54.8	3 40	98.1	-56.3	18.5	-0.1	1
6098		55.2	7 07	100.4	-53.1	18.1	-0.1	2
6102		55.4	5 48	99.7	-54.4	17.8	0.0	2
6103		55.4	9 21	101.7	-51.0	18.4	0.0	3
6104		55.4	6 45	100.3	-53.5	18.5	0.0	2
6109		55.5	9 10	101.6	-51.2	18.2	0.0	3
6110		55.6	8 24	101.3	-51.9	18.4	0.0	3
6111		55.6	7 22	100.7	-52.9	18.1	0.0	2
6121		55.9	5 46	99.9	-54.4	18.6	0.0	2
6123		56.1	3 56	98.8	-56.2	17.0	0.0	1
6127		56.2	7 46	101.1	-52.6	18.1	-0.1	3
6129		56.3	7 42	101.1	-52.7	18.0	-0.1	3
6137		56.9	7 00	101.0	-53.4	17.2	-0.1	2

TABLE 4 (CONTINUED)

PHL	RA (1950)	Dec.	l	b	mpg	U - V	Fig.
6141	57.1	4 15	99.4	-56.0	17.4	0.0	1
6142	57.1	6 10	100.6	-54.2	18.3	-0.1	2
6144	57.2	7 02	101.1	-53.4	18.3	0.0	2
6152	57.5	5 07	100.1	-55.2	16.6	0.0	1
6154	57.6	5 29	100.4	-54.9	17.9	0.0	1
6159	57.8	4 37	99.9	-55.7	17.7	0.0	1
6162	57.9	5 42	100.6	-54.7	18.1	-0.1	2
6163	58.0	4 12	99.8	-56.1	18.3	-0.1	1
6168	58.6	7 02	101.7	-53.5	17.0	0.0	2
6169	58.6	4 56	100.5	-55.5	17.8	-0.1	1
6170	58.6	7 59	102.2	-52.6	18.3	-0.1	3
6173	58.7	4 15	100.1	-56.1	18.0	0.0	1
6175	58.8	6 22	101.4	-54.1	17.7	0.0	2
6181	59.0	5 16	100.8	-55.2	18.0	0.0	1
6182	59.0	5 16	100.8	-55.2	16.9	-0.1	1
6186	59.2	5 20	101.0	-55.1	18.3	0.0	1
6200	00 00.0	5 44	101.5	-54.8	18.4	0.0	4
6201	00.0	4 00	100.5	-56.4	18.2	-0.1	4
6207	00.2	4 11	100.7	-56.3	18.3	-0.1	4
6220	00.9	6 56	102.5	-53.7	18.1	0.0	5
6229	01.1	5 01	101.6	-55.6	18.3	-0.1	4
6230	01.1	4 50	101.4	-55.8	18.4	-0.1	4
6233	01.2	4 40	101.4	-55.9	15.2	0.0	4
6235	01.2	7 04	102.7	-53.6	17.1	-0.1	5
6260	02.3	6 59	103.1	-53.8	18.1	-0.1	5
6261	02.4	8 10	103.7	-52.7	17.1	0.0	6
6262	02.4	7 10	103.2	-53.6	18.3	0.0	5
6263	02.4	8 31	103.9	-52.4	18.0	-0.1	6
6266	02.6	9 29	104.4	-51.4	18.3	-0.1	6
6281	04.1	7 16	104.0	-53.7	18.3	-0.1	5
6282	04.2	7 01	103.9	-53.9	17.7	0.0	5
6284	04.2	4 34	102.6	-56.3	18.2	-0.1	4
6287	04.4	4 47	102.8	-56.1	18.6	-0.1	4
6289	04.6	4 50	102.9	-56.0	18.1	0.0	4
6290	04.6	4 39	102.8	-56.2	16.9	-0.1	4
6298	05.1	5 12	103.3	-55.7	18.5	0.0	4
6308	05.7	9 21	105.6	-51.8	18.4	0.0	9
6309	05.7	9 22	105.6	-51.8	18.2	-0.1	9
6314	05.8	6 04	104.1	-54.9	18.5	-0.1	5,8
6318	06.0	5 23	103.8	-55.6	18.1	0.0	4,7
6321	06.4	7 27	105.0	-53.7	18.3	0.0	5,8
6322	06.4	3 32	103.0	-57.4	18.3	0.0	4
6327	06.6	9 20	105.9	-51.9	18.3	0.0	9
6329	06.6	5 11	104.0	-55.8	18.2	-0.1	4,7
6330	06.7	5 48	104.3	-55.3	18.6	0.0	8
6332	06.8	7 52	105.3	-53.3	17.7	-0.1	9
6345	07.6	9 31	106.4	-51.7	17.9	-0.1	9
6353	08.1	5 54	104.9	-55.3	18.2	-0.1	8
6356	08.3	6 18	105.2	-54.9	18.3	0.0	8
6358	08.4	3 55	104.1	-57.2	18.3	0.0	7

TABLE 4 (CONTINUED)

PHL	RA (1950)	Dec.	l	b	mpg	U - V	Fig.
6361	08.4	4 35	104.4	-56.5	18.2	-0.1	7
6362	08.5	6 30	105.4	-54.7	18.4	0.0	8
6364	08.6	8 27	106.3	-52.8	18.4	-0.1	9
6365	08.7	7 03	105.7	-54.2	17.1	0.0	8
6370	08.9	5 28	105.1	-55.7	18.8	-0.1	7
6377	09.1	6 30	105.7	-54.8	18.4	-0.1	8
6381	09.2	9 18	106.9	-52.1	17.0	-0.1	9
6390	09.8	4 04	104.8	-57.1	18.5	0.0	7
6398	10.2	7 00	106.3	-54.3	18.4	0.0	11
6407	11.0	3 54	105.2	-57.4	17.9	0.0	10
6409	11.0	3 49	105.2	-57.5	18.2	-0.1	10
6415	11.4	5 12	106.0	-56.2	17.9	0.0	10
6416	11.4	6 18	106.5	-55.1	18.5	0.0	11
6422	11.6	6 25	106.7	-55.0	17.9	0.0	11
6429	12.0	6 09	106.7	-55.3	18.2	-0.1	11
6434	12.2	4 34	106.1	-56.8	17.6	-0.1	10
6443	12.9	6 40	107.3	-54.8	18.3	0.0	11
6446	12.9	5 25	106.8	-56.0	18.5	-0.1	10
6447	13.0	7 49	107.8	-53.7	17.7	-0.1	12
6448	13.1	5 14	106.8	-56.2	18.1	0.0	10
6449	13.3	3 36	106.1	-57.8	17.9	0.0	10
6450	13.3	6 34	107.4	-55.0	18.2	-0.1	11
6456	13.8	5 23	107.1	-56.1	18.6	0.0	10
6464	14.0	3 48	106.5	-57.7	18.4	-0.1	10
6477	14.6	5 16	107.4	-56.3	17.9	0.0	10
6479	14.8	5 01	107.4	-56.5	18.5	-0.1	10
6480	15.0	4 34	107.3	-57.0	18.4	-0.1	10
6482	15.2	4 54	107.5	-56.7	18.3	0.0	10
6485	15.3	6 54	108.4	-54.7	18.1	-0.1	11
6489	15.7	6 18	108.3	-55.4	17.1	-0.1	11
6492	15.8	5 16	108.0	-56.4	18.5	-0.1	10
6496	16.1	5 17	108.1	-56.4	16.4	0.0	10
6498	16.1	7 05	108.8	-54.6	18.5	0.0	11
6503	16.2	7 12	108.9	-54.5	15.7	0.0	11
6504	16.2	6 02	108.4	-55.6	18.0	0.0	11

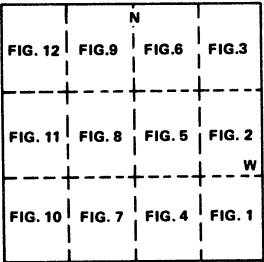


Fig. 13. A rough diagram showing the distribution of the figures or charts which cover the whole field of the Mount Palomar 48 inch Schmidt telescope, centered at 0^h 04^m and

+ 6.5° (1950). It is convenient to emphasize that there exists a big overlap between the 12 different figures. In all cases, north is at the top and west to the right.

REFERENCES

Chavira, E. 1958, *Bol. Obs. Tonantzintla y Tacubaya*, 2 No. 17, 15.
Chavira, E. 1959, *Bol. Obs. Tonantzintla y Tacubaya*, 2 No. 18, 3.
Haro, G. and Chavira, E. 1987, *Rev. Mexicana Astron. Astrof.*, 15, 107.
Haro, G. and Luyten, W.J. 1962, *Bol. Obs. Tonantzintla y Tacubaya*, 3 No. 22, 37.
Hewitt, A. and Burbidge, G. 1987, *Ap. J. Suppl. Series*, 63, 1.
Iriarte, B. and Chavira, E. 1957, *Bol. Obs. Tonantzintla y Tacubaya*, 2 No. 16, 3.

Enrique Chavira: Instituto Nacional de Astrofísica, Óptica y Electrónica, Apartado Postal 216, 72000 Puebla, Pue., México.

IDENTIFICATION CHARTS OF PHL OBJECTS

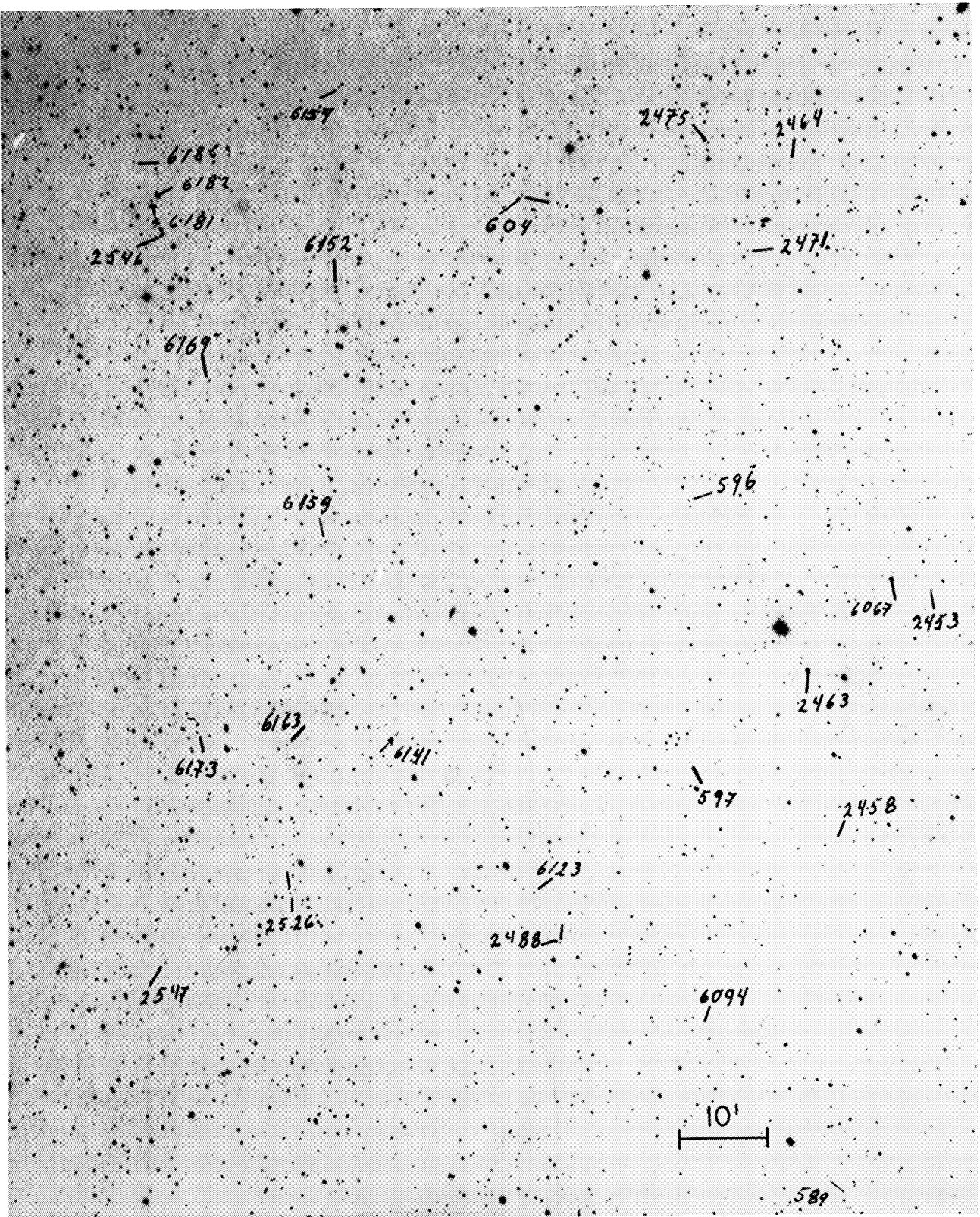


Fig. 1. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

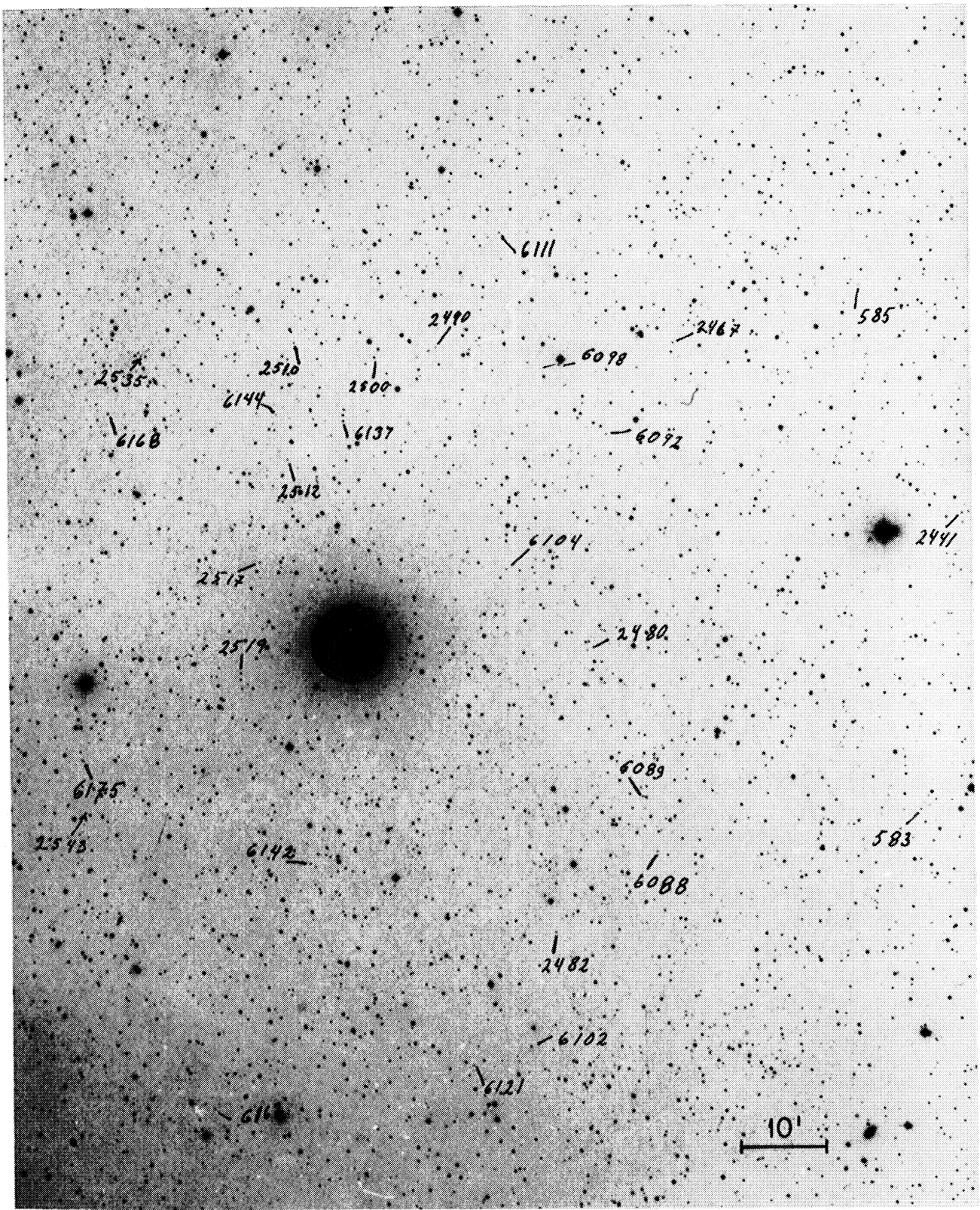


Fig. 2. Identification chart.
E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

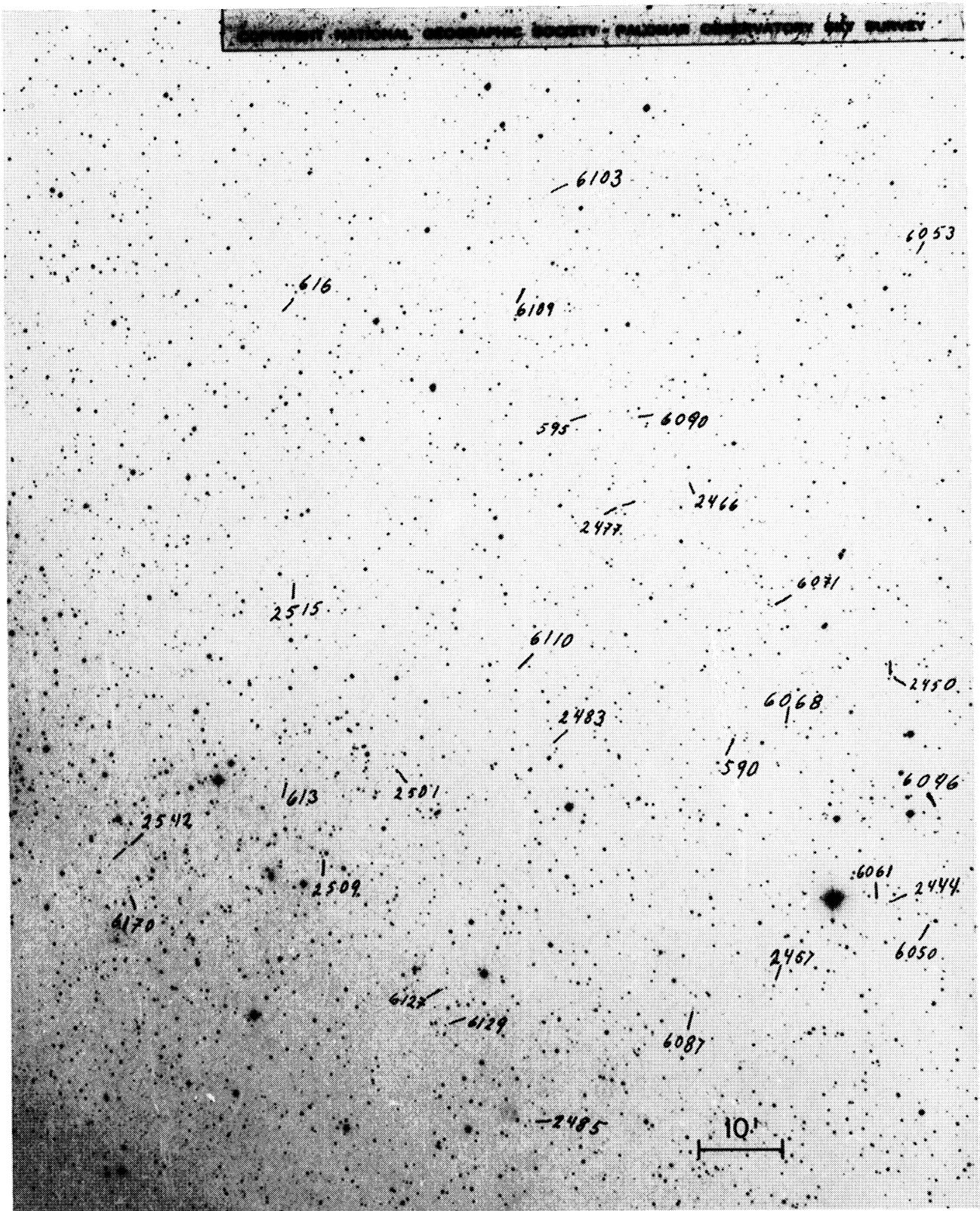


Fig. 3. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

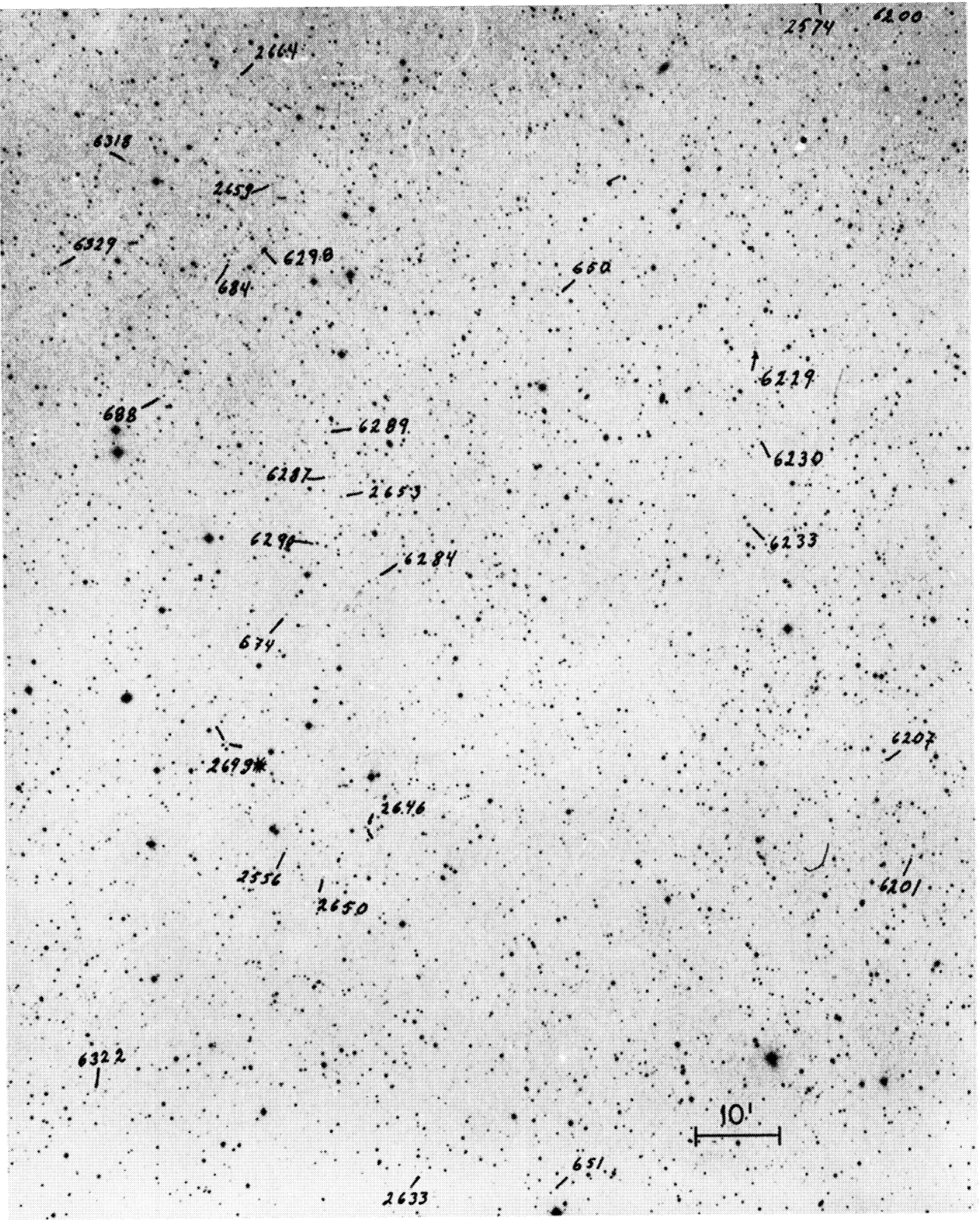


Fig. 4. Identification chart.
E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

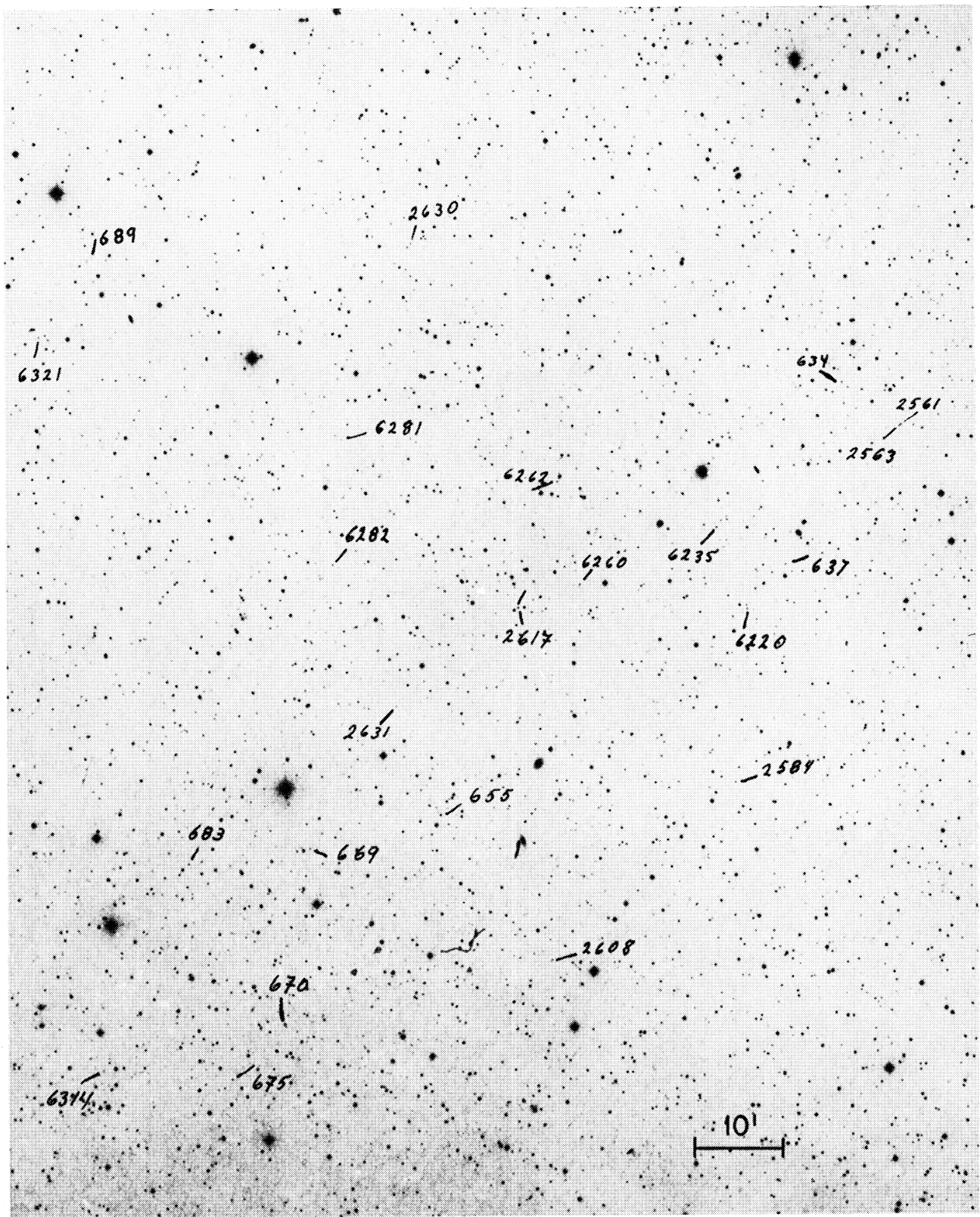


Fig. 5. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

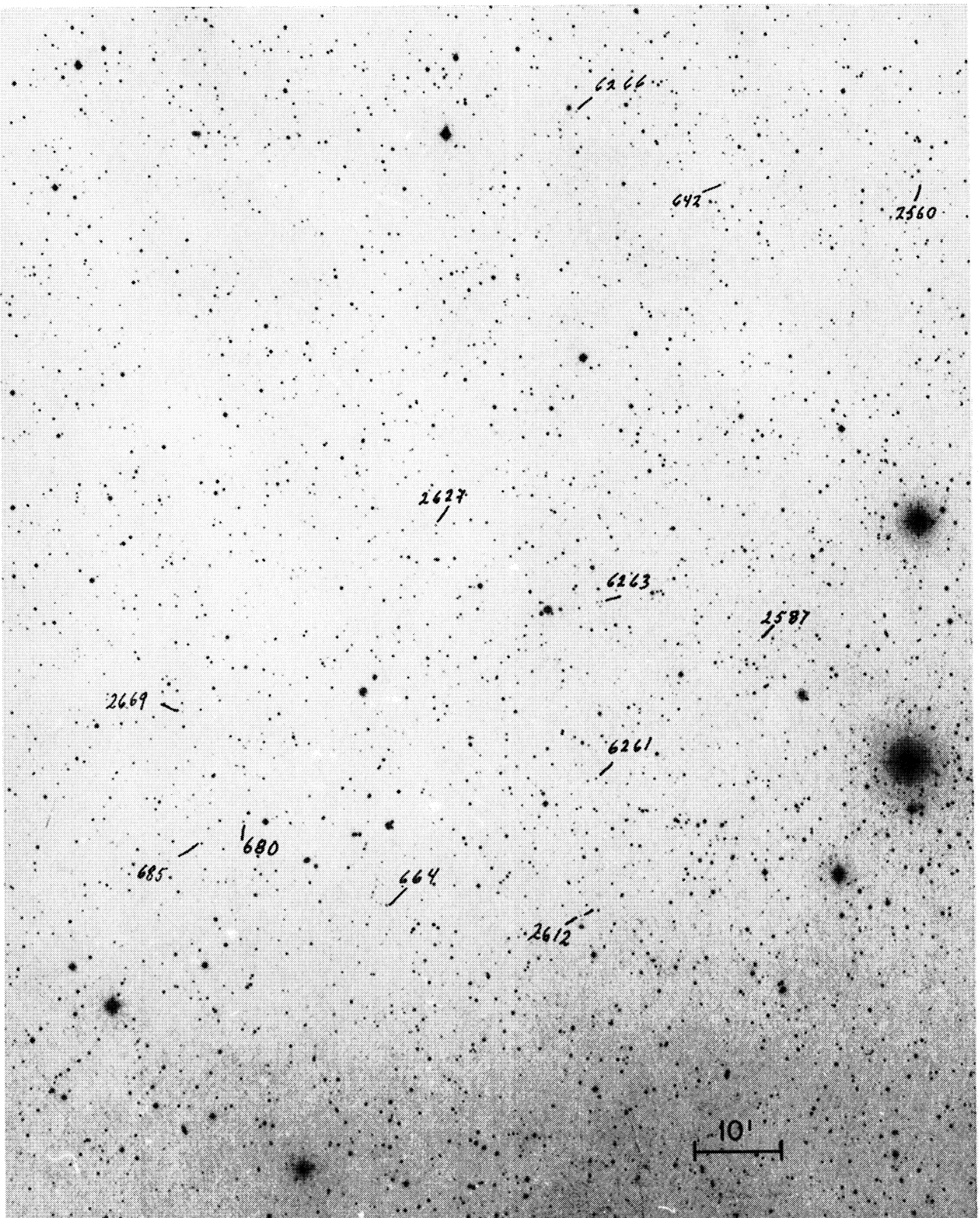


Fig. 6. Identification chart.
E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

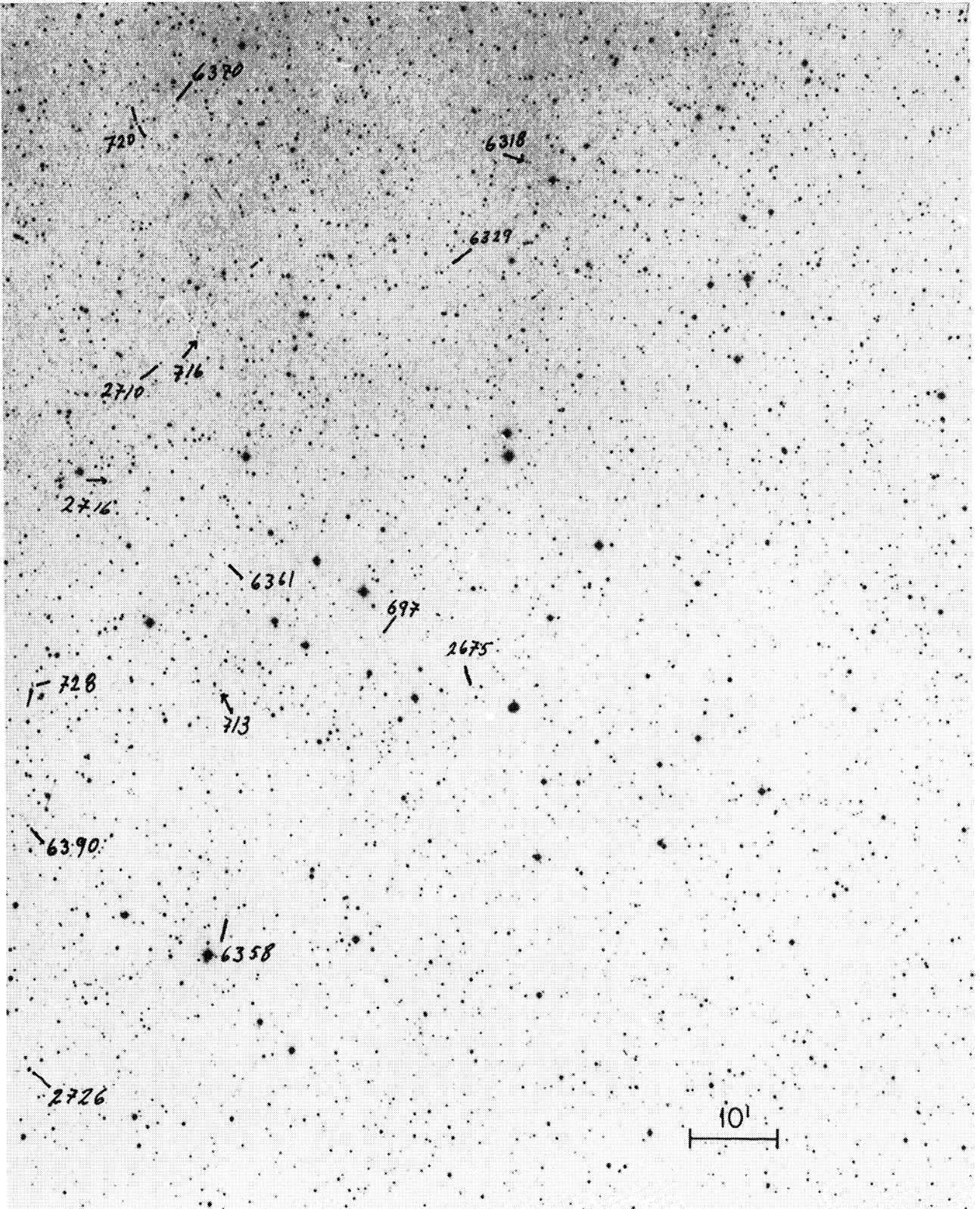


Fig. 7. Identification chart.
E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

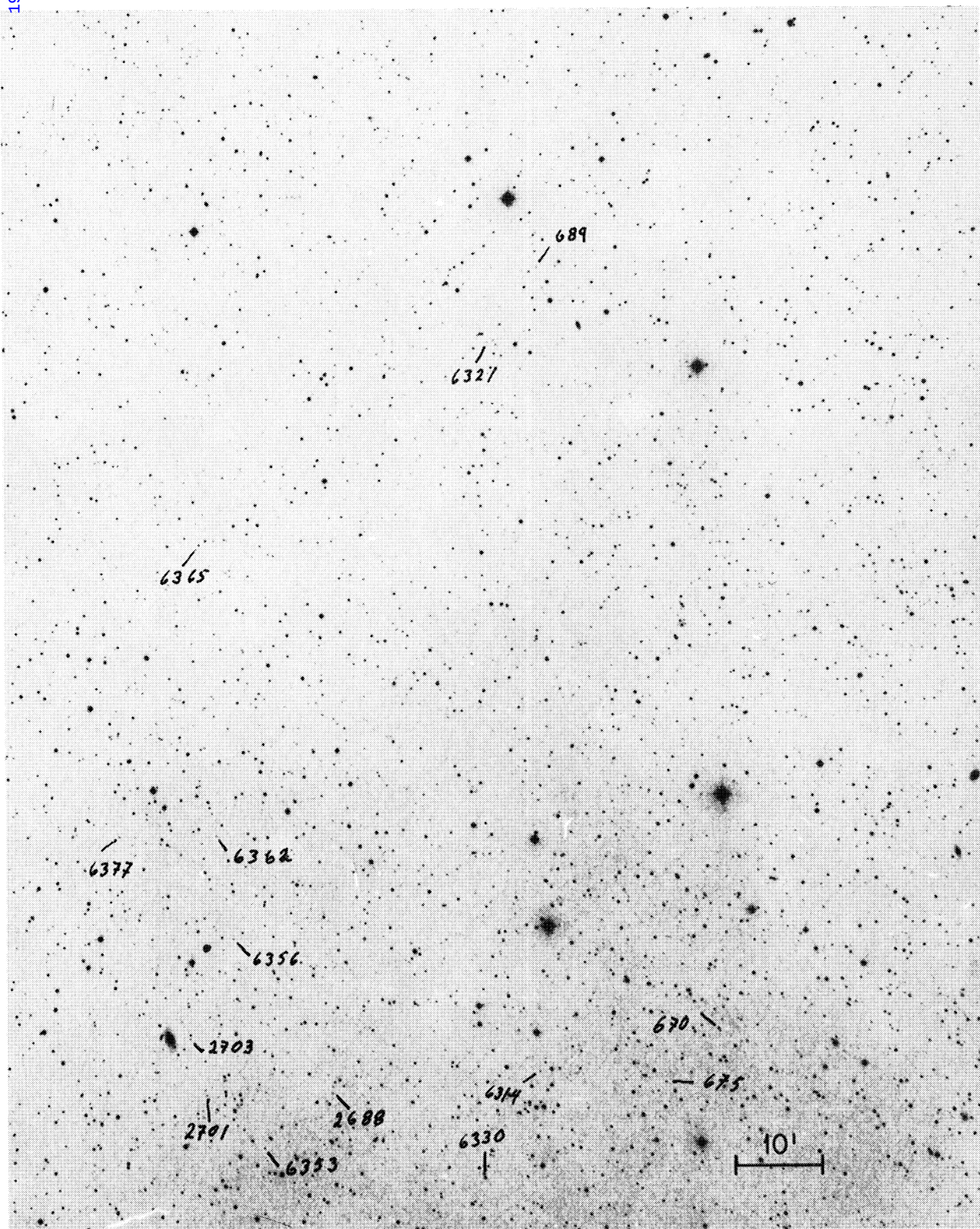


Fig. 8. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

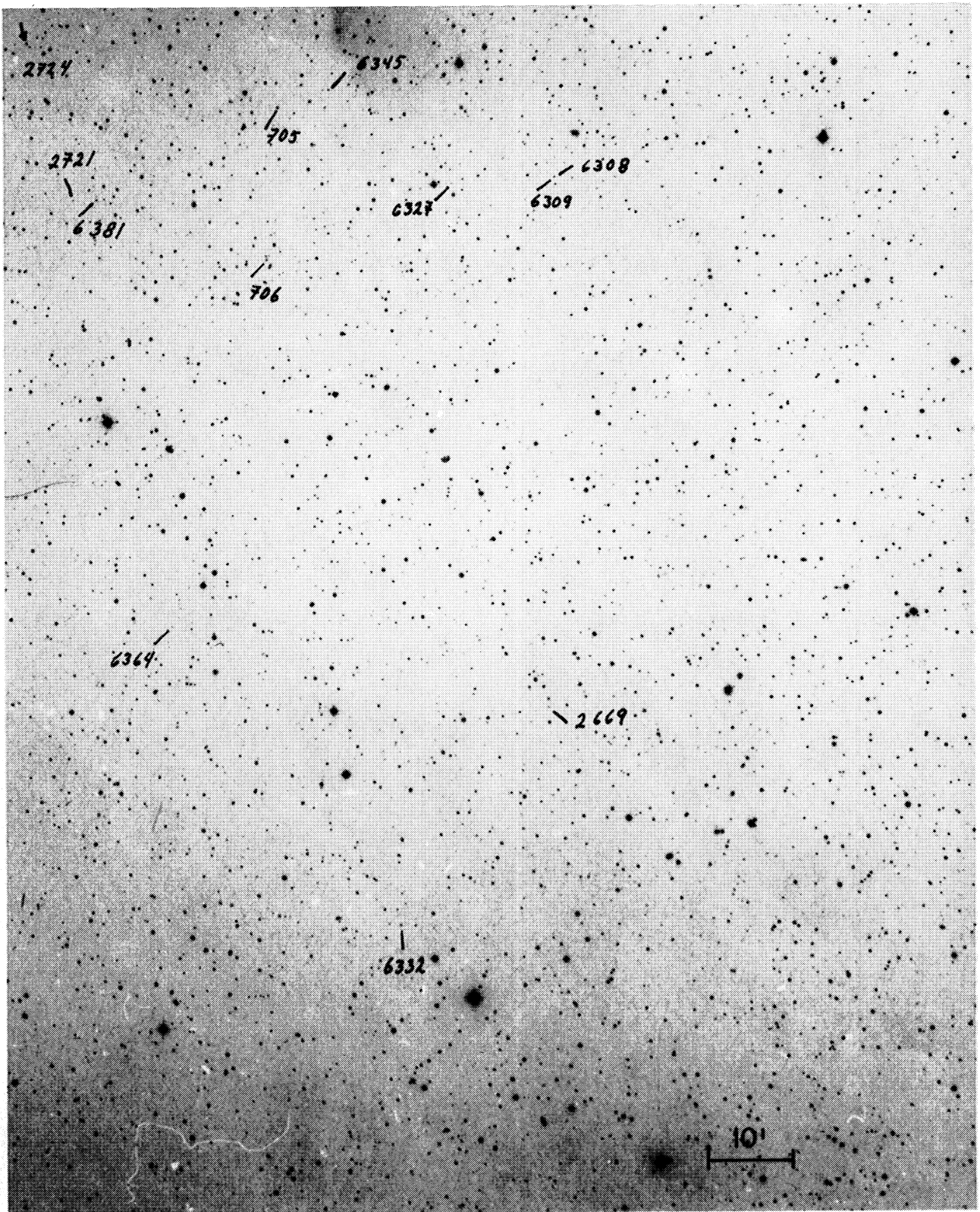


Fig. 9. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

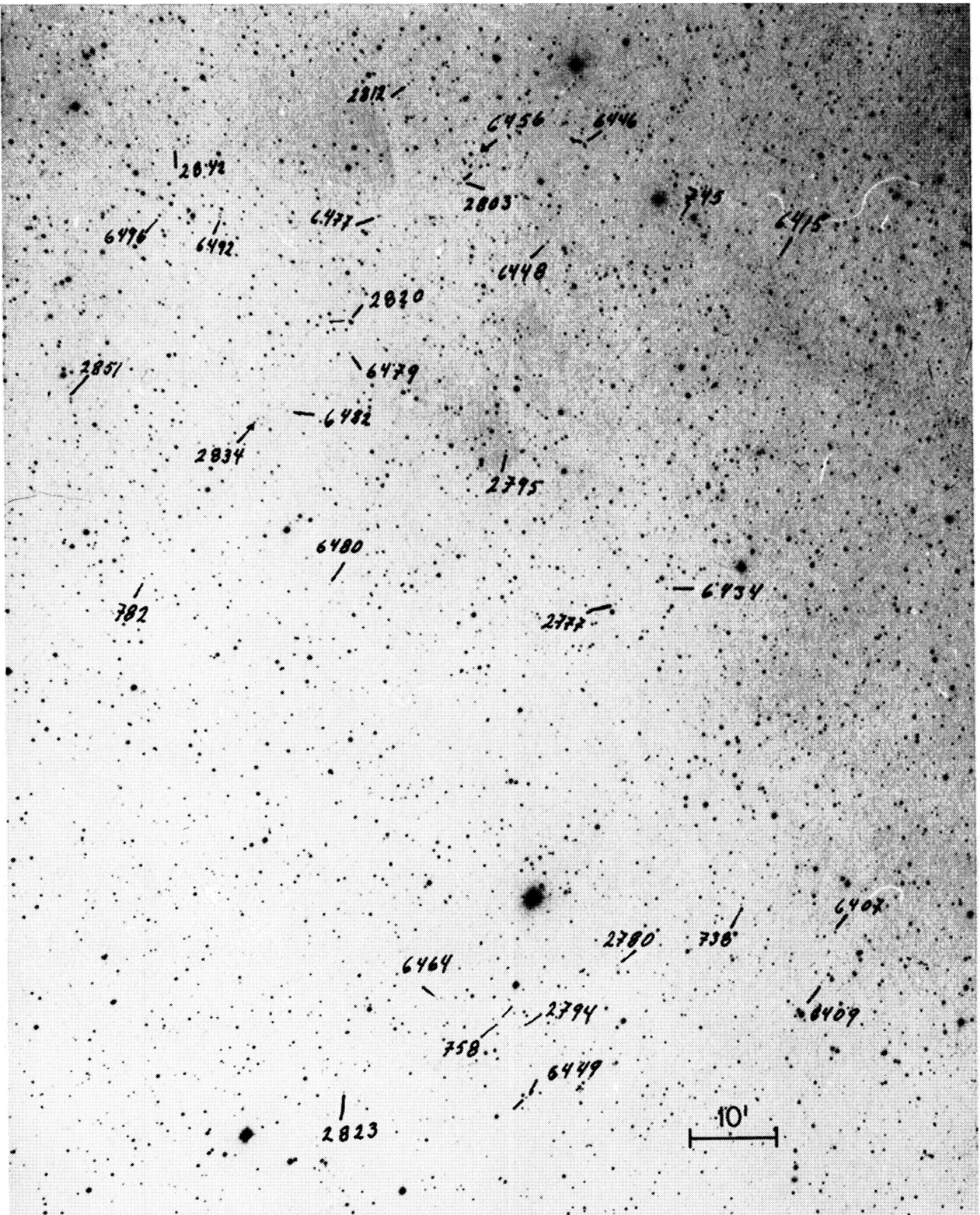


Fig. 10. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

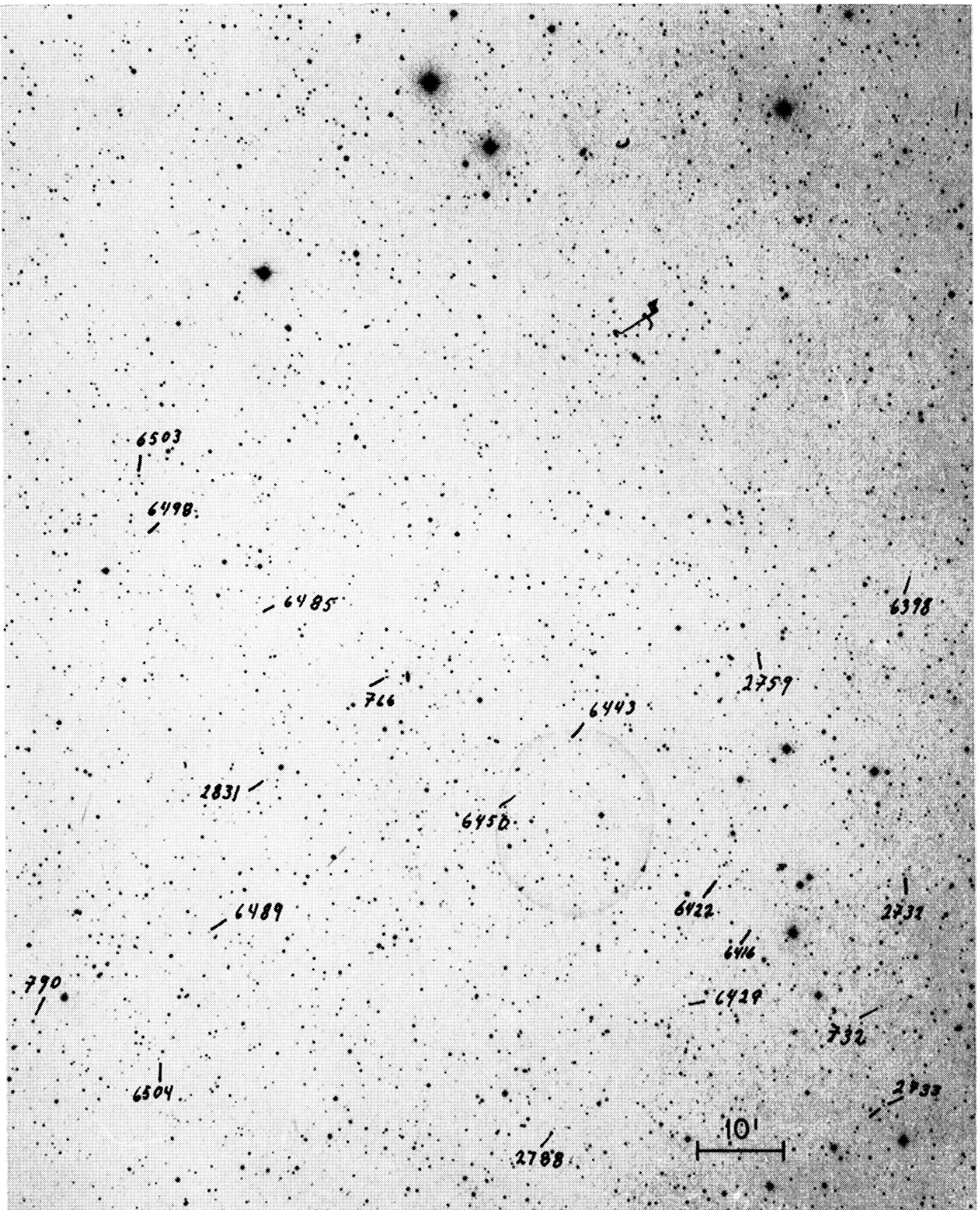


Fig. 11. Identification chart.

E. CHAVIRA (See page 123)

IDENTIFICATION CHARTS OF PHL OBJECTS

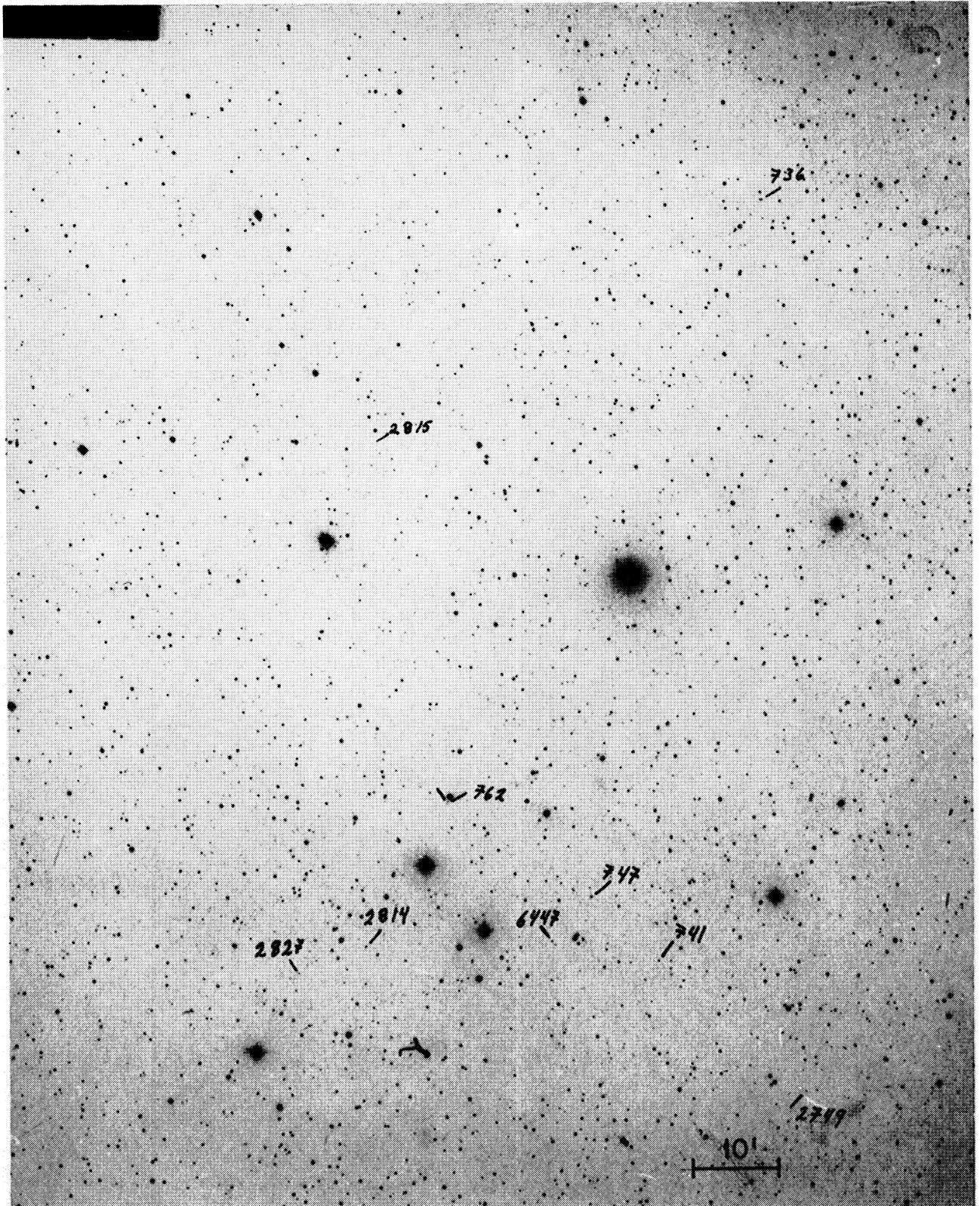


Fig. 12. Identification chart.
E. CHAVIRA (See page 123)