ASTRONOMY & ASTROPHYSICS
SUPPLEMENT SERIES

OCTOBER 1981, PAGE 57

Astron. Astrophys. Suppl. Ser. **46,** 57-77 (1981)

Spectroscopic and photometric observations of galaxies from the ESO/Uppsala list. Third catalogue

R. M. West ([1]) (*), J. Surdej ([2]) (**), H.-E. Schuster ([3]), A. B. Muller ([1, 3]), S. Laustsen ([4]) and T. M. Borchkhadze ([5])

([1]) European Southern Observatory, Karl - Schwarzschild - Strasse 2, D-8046 Garching bei München, F.R.G.
([2]) Institut d'Astrophysique, Université de Liège, Av. de Cointe, 5, B-4200 Cointe-Ougrée, Belgium.
([3]) European Southern Observatory, La Silla Chile.
([4]) Astronomical Institute, Aarhus University, Langelandsgade, DK-8000 Aarhus C, Denmark.
([5]) Abastumani Astrophysical Observatory, SU-383762 Abastumani, Georgia, USSR.

Received February 16, accepted February 23, 1981

Summary. — Spectroscopic and photometric observations are presented for a total of about 275 southern galaxies, selected from ESO/Uppsala lists Nos. 1-8. Many of the galaxies have emission lines and several are members of multiple systems.

Key words : galaxies — radial velocities — *UBV*-photometry, interacting galaxies.

1. **Introduction.** — The Third Catalogue of spectroscopic and photometric observations of galaxies from the ESO/Uppsala lists contains about 275 entries, selected from ESO/Uppsala lists 1-8 (Holmberg *et al.*, 1974a, 1974b, 1975, 1977, 1978a, 1978b, 1980 ; Lauberts *et al.*, 1981). This paper is a sequel to the first two catalogues : West (1977), hereafter referred to as Catalogue I, and Bergvall *et al.* (1978), hereafter referred to as Catalogue II. We here summarize the observations which were obtained in the period March 1977 - September 1978 by the ESO group. For easy reference, we have included data from two other papers dealing with emission line galaxies which were discovered in the course of this investigation (Borchkhadze and West, 1978, 1980) as well as a few papers concerned with individual objects. Since the end of 1978 more than 200 other galaxies have been observed spectroscopically and will be included in the Fourth Catalogue which is presently being compiled.

The galaxies were selected according to the following criteria :

a) Bright star-like nucleus
b) Peculiar morphological structure
c) Interaction with nearby companion

and, as would be expected, several systems with peculiar spectra were found. A number of these have been investigated in detail with the ESO 3.6 m telescope.

2. **Spectroscopic observations.** — The spectroscopic observations were carried out at ESO on La Silla and CARSO on Las Campanas. Two observing runs, in March 1977 and October 1977 with the Las Campanas 1 m Swope telescope equipped with the Carnegie image tube spectrograph yielded a total of 220 spectra (observer R. M. W.). During another run at the Cassegrain focus of the ESO 3.6 m telescope (Boller & Chivens spectrograph) in January 1978, spectra were obtained of 60 galaxies (observer R. M. W.). Furthermore, four brief runs with the Boller & Chivens spectrograph at the ESO 1.52 m telescope, in April 1977, January 1978, February 1978 and September 1978, resulted in 31 spectra (observers H.-E. S. and A. B. M.). The dispersions and the wavelength ranges are indicated in Section 4, in the description of the corresponding column of table I. All spectra were unwidened and many of them covered several components in one system.

Most of the spectra were measured with the ESO GRANT measuring machine by R. M. W. (cf. West *et al.*, 1978). The spectra included in this catalogue and first published by Borchkhadze and West (1978) were measured by T. M. B. on the ESO S-3000 measuring machine and those in the paper by Borchkhadze and West (1980) by T. M. B. on the Ascorecord two-dimensional measuring machine at the Abastumani Astrophysical Observatory. The radial velocities, together with their mean errors are given in table I. The number of measured lines is indicated in each case and comprehensive notes describe the individual objects.

In order to estimate the external accuracy of the catalogue we compare, in table II, radial velocities of 20 galaxies with those from other sources. It can be seen that in all but a few cases the difference is within the given r.m.s. values. In any case the number of common objects is too small to justify any corrections.

Among the many spectra that were obtained, some (absorption line) were unmeasurable, because of underexposure, bad focus, lack of lines, etc. In order to

(*) Guest observer Las Companas Observatory, 1977/78.
(**) Chargé de Recherches au Fonds National de la Recherche Scientifique, Belgique.

make future observers aware of the fact that (unsuccessful) spectra have been obtained of these objects, we have included them in table I and given the reason for our inability to obtain the radial velocity in the notes to table I.

3. **Photometric observations.** — Photoelectric *UBV* observations of many of the spectroscopically observed galaxies were obtained in July 1977 and December 1977 by means of the standard one-channel photometer attached to the ESO 1 m photometric telescope on La Silla (observer J. S.) The measurements were reduced on the HP computer system on La Silla with the standard *UBV* reduction programme. In most cases, the largest diaphragm covered the entire galaxy. The accuracy is about $\pm$ 0^m.02 in *B* and *V* and somewhat lower in *U,* not including the possible uncertainty from the diaphragm position. Details of the photometry may be found in the paper by West *et al.* (1978).

The photometric data have been collected in table III. Most of the values are means of 2-3 observations.

4. **The catalogue.** — The data of the catalogue are contained in tables I and III. Additional information is given in the notes. All galaxies, except those discussed in earlier papers, are shown in figures 1-13, reproduced from ESO 1 m Schmidt or 3.6 m plates. The columns of table I are :

Col. 1 : Identifier.
Col. 2 : ESO number (as described by Holmberg *et al.,* 1974a) and other name, if any. NGC, IC, Se = Sersic (1974), MCG (Vorontsov-Velyaminov and Arkhipova, 1968, 1974), AG = Agüero (1971), FAIRALL = Fairall (1977).
Cols. 3 and 4 : Right ascension and declination to equinox 1950.0, taken from the ESO/Uppsala lists.
Col. 5 : Slit angle θ, 0°-180° from north to south over east.
Col. 6 : Identification of components in multiple systems, cf. figures 1-13.
Col. 7 : Heliocentric radial velocity $cz = 300\,000.z_{obs} + 30.\cos\beta \sin(\lambda_{sun} - \lambda)$.
Col. 8 : Systemic, heliocentric velocity V_0, corrected to the local group ($+ 300 \sin l^{II} \cos b^{II}$) and including relativistic correction.
Col. 9 : The r.m.s. of the mean velocity, as given in column 7 and 8.
Col. 10 : No. of lines which were used to determine the redshift. *E* = emission ; *A* = absorption.
Col. 11 : Linear diameter (kpc) of the object (D_c), assuming cosmological redshift and $H_0 = 55$ km s^{-1} Mpc^{-1}.
Col. 12 : Linear diameter (kpc) of the system (D_s).
Col. 13 : Equipment used for spectroscopy (1) = ESO 1.5 m telescope, Boller & Chivens spectrograph, 256 Å/mm (3500-5700 Å), blue image tube, (2) = Las Campanas 1 m telescope and Carnegie image tube spectrograph, 280 Å/mm (3700-7200 Å), (3) = Las Campanas 1 m telescope and Carnegie image tube spectrograph, 135 Å/mm (4500-7500 Å), (4) = ESO 1.5 m telescope, B & C spectrograph 172 Å/mm (4000-7200 Å), red image tube, (5) = ESO 3.6 m telescope, B & C spectrograph, 114 Å/mm (3600-7000 Å), (6) = ESO 1.5 m telescope 254 Å/mm (4200-8200 Å), red image tube, (7) = ESO 1.5 m telescope, B & C spectrograph, 254 Å/mm (4800-8500 Å), red image tube.
Col. 14 : Number of ESO/Uppsala list in which the object was first listed.
Col. 15 : Figure in which object is shown.
Col. 16 : References and notes : N = note after table I. 1 = Borchkhadze and West (1978), 2 = Borchkhadze and West (1980), 3 = West *et al.* (1978a), 4 = West *et al.* (1978b), 5 = West (1979), 6 = West and Schuster (1980). The notes to table I include details about the spectra and the lines which were used for determination of the radial velocities. The lines are identified by the wave-lengths as follows : 3933 = Ca II (K), 3969 = Ca II (H) and Hε, 4101 = Hδ, 4226 = Ca I, 4304 = G-band, 4341 = Hγ, 4861 = Hβ, 4959 = [O III], 5007 = [O III], 5175 = Mg I triplet, 5268 = Fe I and Ca I, 5892 = Na I doublet, 6548 = [N II], 6563 = Hα, 6584 = [N II], 6717 = [S II] and 6731 = [S II].

The columns of table III are :

Col. 1 : Identifier.
Col. 2 : ESO number and NGC or IC, if applicable.
Col. 3 and 4 : Right ascension and declination to equinox 1950.0.
Col. 5 : Identification of components in multiple systems (cf. Fig. 1-13).
Col. 6 : Diameter of circular diaphragm in arcseconds.
Col. 7, 8 and 9 : *V,* (*B-V*) and (*U-B*).
Col. 10 : ESO/Uppsala list in which the object was first listed.
Col. 11 : Notes, cf. explanation below table.

Acknowledgements. — We thank the night-assistants on La Silla and Las Campanas, Srs. Flores, Moya Ramirez, Roman, Vega, Veliz, Yagnam and Zuniga for their cheerful help at the telescopes. We are much obliged to ESO photographers R. Saxby, C. Madsen and J. Quebatte for the photographic work and to Mrs. E. Völk for typing the manuscript. T. M. B. thanks the ESO for hospitality during a stay as fellow in Geneva, R. M. W. is indebted to the Carnegie Institution in Washington for allocation of observing time at Las Campanas.

References

AGÜERO, E. L. : 1971, *Publ. Astron. Soc. Pac.* **83,** 310.

BERGVALL, N. Å. S., BORCHKHADZE, T. M., BREYSACHER, J., EKMAN, A. B. G., LAUBERTS, A., LAUSTSEN, S., MULLER, A. B., SCHUSTER, H.-E., SURDEJ, J., WEST, R. M., WESTERLUND, B. E., 1978, *Astron. Astrophys. Suppl. Ser.* **33,** 243 (Catalogue No. II).

BORCHKHADZE, T. M., WEST, R. M. : 1978, *Astrofizika* **13,** 605.

BORCHKHADZE, T. M., WEST, R. M. : 1980, *Astrofizika,* **16,** 397.

FAIRALL, A. P. : 1977, *Mon. Not. R. Astron. Soc.* **180,** 391.

FAIRALL, A. P. : 1979, *Mon. Not. R. Astron. Soc.* **188,** 349.

FAIRALL, A. P. : 1980a, *Mon. Not. R. Astron. Soc.* **192,** 389.

FAIRALL, A. P. : 1980b, (List No. IV), preprint.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1974a, (List I), *Astron. Astrophys. Suppl. Ser.* **18,** 463.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1974b, (List II), *Astron. Astrophys. Suppl. Ser.* **18,** 491.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1975, (List III), *Astron. Astrophys. Suppl. Ser.* **22,** 327.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1977 (List IV), *Astron. Astrophys. Suppl. Ser.* **27,** 295.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1978a, (List V), *Astron. Astrophys. Suppl. Ser.* **31,** 15.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1978b, (List VI), *Astron. Astrophys. Suppl. Ser.* **34,** 285.

HOLMBERG, E. B., LAUBERTS, A., SCHUSTER, H.-E., WEST, R. M. : 1980, (List VII), *Astron. Astrophys. Suppl. Ser.* **39,** 173.

LAUBERTS, A., HOLMBERG, E. B., SCHUSTER, H.-E., WEST, R. M. : 1981 (List VIII), *Astron. Astrophys. Suppl. Ser.* **43,** 307.

MARTIN, W. L. : 1976, *Mon. Not. R. Astron. Soc.* **175,** 633.

SANDAGE, A. : 1978, *Astron. J.* **83,** 904.

SANDAGE, A., TAMMANN, G. A. : 1981, *A Revised Shapley-Ames Catalogue of Bright Galaxies,* Carnegie Institution of Washington, Publication No. 635, Washington, D.C., USA.

SERSIC, J. L. : 1974, *Astrophys. Space Sci.* **28,** 365.

VAUCOULEURS, G. DE, VAUCOULEURS, A. DE, CORWIN Jr., H. G. : 1976, *Second Reference Catalogue of Bright Galaxies,* Austin and London (University of Texas Press).

VORONTSOV-VELYAMINOV, B. A., ARKHIPOVA, V. P. : 1968, *Morfologiceskij Katalog Galaktik* (Morphological Catalogue of Galaxies) **IV,** Moscow State University, Moscow.

VORONTSOV-VELYAMINOV, B. A., ARKHIPOVA, V. P. : 1974, *Morfologiceskij Katalog Galaktik* (Morphological Catalogue of Galaxies) **V,** Moscow State University, Moscow.

WEST, R. M. : 1977, *Astron. Astrophys. Suppl. Ser.* **27,** 73.

WEST, R. M., BORCHKHADZE, T. M., BREYSACHER, J., LAUSTSEN, S., SCHUSTER, H.-E. : 1978, *Astron. Astrophys. Suppl. Ser.* **31,** 55.

WEST, R. M., DANKS, A. C., ALCAINO, G. : 1978a, *Astron. Astrophys.* **62,** L13.

WEST, R. M., DANKS, A. C., ALCAINO, G. : 1978b, *Astron. Astrophys.* **65,** L51.

WEST, R. M. : 1979, *Astron. Astrophys.* **71,** 262.

WEST, R. M., SCHUSTER, H.-E. : 1980, *Astron. Astrophys.* **88,** 350.

WEST, R. M., BARBIER, R. : 1981, ESO Scientific preprint n° 160.

TABLE I. — *Spectroscopic and photometric observations of galaxies from the ESO/Uppsala list (West et al.).*

IDENT (1)	ESO NO. (2)	R.A. (1950) (3)	DECL. (4)	ANG (5)	COM (6)	CZ (7)	V0 (8)	SIG (9)	LINES (10)	DC (11)	DS (12)	EQP. (13)	LIST (14)	FIG. (15)	REF. (16)
0012-354	350-IG03	00 12 35	-35 25.3	180	A	7976	7849	16:	2A	28	42	2	6	01-01	N
0013-333	350- G04	00 13 13	-33 18.5	196	A	——	——	—	——	——	——	2	6	01-02	N
	MCG-06-01-37														
0020-343	350- G11	00 20 01	-34 23.6	090		15112	14717	160	1E+3A	31		2	6	01-03	N
0030-325	350- G33	00 30 40	-32 32.1	024		1806	1788	43	3E+3A	11		2	6	01-04	N
	IC 1554														
0034-338	350-IG38	00 34 26	-33 49.9	090		6156	6220	31	11E	13		2	6	01-05	N
	MCG-06-02-22														
0102-643	079- G16	01 02 32	-64 23.4	180		6036	5816	30	4E	41		5	2	——	N
0121-590	113-IG45	01 21 51	-59 04.0	090		14110	13640	80	6E	75		3	5	——	3*
	FAIRALL-9			090		14095	13625	20	6E			2			3
0123-375	296- G29	01 23 36	-37 35.6	190	A	9441	9228	170	2A	25	35	6	5	01-06	N
	MCG-06-04-34?														
0128-332	353- G07	01 28 08	-33 17.6	145		(0)	——	—	A	——		2	6	01-07	N
	MCG-06-04-41?														
0132-363	353- G20	01 32 37	-36 23.5	076		4827:	4720:	—	1A	37:		3	6	01-08	N
	MCG-06-04-50														
0136-331	353-IG30	01 36 31	-33 08.0	090		——	——	—	——	——		2	6	01-09	N
	MCG-06-04-62?														
0140-335	353- G33	01 40 00	-33 30.7	153		5895	5776	21	5E	20		2	6	01-10	N
	MCG-06-04-66														
0140-344A	353- G34	01 40 48	-34 26.4	050	A	4091	3998	67	5E	36		2	6	01-11	N
	IC 1722 = MCG-06-04-67				B	4148	4054	106	3E						
0140-344B	353- G35	01 40 55	-34 29.9	153		3846	3758	85	5A	20		2	6	01-12	N
	IC 1724 = MCG-06-04-68														
0141-344	353- G36	01 41 04	-34 27.4	019		3626	3539	98	3E+1A	16		2	6	02-01	N
	MCG-06-04-69														
0141-339	353- G38	01 41 23	-33 57.4	113		8785	8596	58	2E+2A	36		2	6	02-02	N
	MCG-06-04-70														
0147-351	353- G50	01 47 18	-35 09.2	025		8097	7918	38	6A	56		5	6	02-03	N
	NGC 696 = MCG-06-05-04													,	
0147-350	353- G51	01 47 31	-35 04.7	090		——	——	—	——	——		5	6	02-04	N
	NGC 698 = MCG-06-05-05														
0203-554	153-IG16	02 03 07	-55 27.3	090		5798	5591	22	5E+1A	58		5	3	——	N
0212-414	298-IG24	02 12 26	-41 28.8	090	A	14095	13660	128	4A	40		6	6	02-05	N
0213-367	355- G01	02 13 36	-36 43.3	090		9363	9125	100	2E+1A	21		2	6	02-06	N
0215-350	355- G04	02 15 47	-35 02.0	090		——	——	—	——	——		5	6	02-07	N
	MCG-06-06-01														
0219-358	355-IG09	02 19 21	-35 53.2	064		——	——	—	——	——		2	6	02-08	N
0223-406	299-IG01	02 23 14	-40 39.2	164	A	11810	11464	82	3A	24	50	7	5	02-09	N
	AG-12 = MCG-07-06-02														
0228-496	198-IG17	02 28 19	-49 39.0	090		8430	8165	13:	4E+1A	33		7	5	02-10	N
0228-344A	355- G20	02 28 32	-34 29.1	090		4821	4669	48	6A	25		5	6	02-11	N
	IC 1811 = MCG-06-06-08														
0228-344B	355- G22	02 28 43	-34 26.5	000		4483	4353	37	2E+3A	25		5	6	——	2
	IC 1813 = MCG-06-06-09														
0229-362	355- G24	02 29 02	-36 15.3	031		4952	4808	170	1E+5A	55		2	6	02-12	N
	NGC 964 = MCG-06-06-10														
0235-339	355-IG31	02 35 58	-33 55.3	104	A	5059	4915	55	4A	17	26	2	6	03-01	N
0316-576	116-IG15	03 16 37	-57 37.6	090		8480	8169	22	6E+1A	70		5	1	——	N
0325-369	358-IG07	03 25 35	-36 55.6	167		10022	9710	190	1E+4A	34		2	6	03-02	N*
0337-336	358-IG47	03 37 14	-33 41.6	030		16008	15438	62	5E+1A	100	100	2	6	03-03	N
0338-712	054-IG15	03 38 01	-71 13.3	015	1	14646	14070	15	6E		50	5	2	——	N
				015	3	14312	13753	20	5E						
				015	4	14594	14020	27	6E						
				115	2	14080	13530	70	5E			5			N
				115	3	14280	13723	18	7E						
0343-361	358- G59	03 43 10	-36 07.7	155		1030	871	68	4A	3		2	6	03-04	N
	MCG-06-09-26														
0344-365	358- G61	03 44 02	-36 30.8	190		——	——	—	——	——		2	6	03-05	N
	MCG-06-09-29														
0344-350	358- G63	03 44 24	-35 05.8	133	A	1958:	1797:	—	1E	44		2	6	03-06	N*
	MCG-06-09-30			133	B	1884:	1725:	—	1E						
0345-338	358- G65	03 45 09	-33 51.9	090		——	——	—	——	——		2	6	03-07	N
	IC 1993 = MCG-06-09-32														
0346-368	358- G67	03 46 15	-36 51.2	090	A	5200	4996	63	3E+2A	21		2	6	03-08	N*
	MCG-06-09-33?			090	B	5397	5186	72	3E						
				090	C	5281	5075	76	5E						
0414-358	360- G04	04 14 37	-35 51.4	128		4458	4250	40	5E	20		5	6	——	2
	MCG-06-10-04														
0416-502	202- G04	04 16 24	-50 17.1	167	A	993	783	30	7E+1A	6		5	5	03-09	N
	NGC 1556			167	B	997	788	17	7E						
				167	C	1020	811	16	6E						
				167	A	1048	839	9:	7E			6			N
				167	B	1001	792	11:	7E						
				167	C	1074	864	18:	3E						
0417-392	303-IG11	04 17 55	-39 17.4	180	C	15317	14740	167	1E+2A			2	5	03-10	N
				090	A	15516	14927	18:	3A			5			N
				090	B	15116	14548	35	4A						
				090	C	15134	14565	22	5E						
0451-456	251-IG40	04 51 39	-45 33.6	115	A	13021	12520	72	4A	66		2	5	03-11	N
0459-748	033- G06	04 59 56	-74 49.4	090		——	——	—	——	——		2	5	03-12	N
0501-448A	252- G05	05 01 05	-44 48.6	149		10152	9756	123	4A	21	70	2	5	04-01	N
0501-448B	252- G06	05 01 07	-44 49.7	149		10105	9711	159	4A	20	70	2	5	04-01	N
0501-749	033-IG09	05 01 37	-74 58.5	037		5985	5686	35	4E+4A	15		2	5	04-02	N*
0502-696	056 -G48	05 02 25	-69 38.3	090		1312	1065	30	5E	25		5	5	——	5
	NGC 1809														
0513-453	252-IG13	05 13 02	-45 18.3	050		——	——	—	——	——		2	5	04-03	N
0532-724	056-G2143	05 32 24	-72 29.8	090		——	——	—	——	——		2	5	04-04	N
0547-477	205-IG03	05 47 08	-47 46.5	090	B	22018	20984	19:	1E+3A			5	5	——	N*
0550-343	364- G07	05 50 31	-34 21.5	090		3213:	2963:	—	1A	24:		5	6	04-05	N
	MCG-06-13-17														
0556-428	254-IG07	05 56 35	-42 51.7	015	A	10643	10205	32	3E	18	18	6	5	13-08	N
0558-339	364-IG22	05 58 16	-33 55.2	069	A	2866	2614	21	6E	9		2	6	04-06	N*
	IC 2153			069	B	3001	2747	59	5E+4A						
				069	C	2758	2506	19	5E						
0608-336A	364- G35	06 08 06	-33 38.4	090		8803	8433	33	1E+3A	52	104	5	6	——	2
	MCG-06-14-06														
0608-336B	364- G36	06 08 11	-33 37.7	090	A	8610	8253	30	8E	32		5	6	——	2
	MCG-06-14-07			090	B	8732	8373	54	8E+2A						
				090	C	8777	8415	15	8E						
0608-340	364- G37	06 08 21	-34 05.7	175	A	820	577	29	6E+3A			2	6	——	N*
	NGC 2188 = MCG-06-14-08			175	B	873	631	38	6E						
				175	C	843	600	43	5E						
				180	A	753	512	20	7E	11		5			2
0611-450	254-IG37	06 11 06	-45 03.6	117	A	4101	3811	57	3A	7	23	2	5	04-07	N*
				117	B	4833:	4531:		1A	7:					
0615-601	121-IG21	06 15 59	-60 07.3	090		9329	8917	98	4A	24		2	5	04-08	N
0617-593	121-RN722	06 17 10	-59 23.6	090		-59		95	1E+5A	——		2	5	04-09	N
0622-629	087-IG14	06 22 36	-62 56.4	168		5120	4810	65	5E	17		2	5	——	1*
0623-609	121-IG28	06 23 12	-60 56.9	096	A	12549	12020	45	8E	50		2	5	04-10	N
0623-586	121-IG31	06 23 28	-58 40.5	134		11106	10632	50	5A	50		2	5	04-11	N
0628-547	161-IG10	06 28 48	-54 45.9	190	A	14338	13728	250	2A	20	60	2	3	04-12	N
				190	B	13880	13280:	—	1A	26:					
0633-707	058-IG06	06 33 25	-70 42.0	178	AB	10984	10520:	—	1E	30:	30:	2	5	05-01	N
0634-618	121-IG39	06 34 10	-61 52.9	090		10166	9722	77	3A	25		2	5	05-02	N
0639-584	122-IG01	06 39 57	-58 28.6	090		2653	2368	30	2E+4A	47	62	5	3	——	N
0640-584	122-IG02	06 40 00	-58 25.3	090		2748	2453	5:	6E	8		5	3	——	N
0642-661	087-IG35	06 42 45	-66 10.7	090	A	12319	11797	210	2E+2A	23	80:	2	5	05-03	N
0643-566	161-IG24	06 43 14	-56 38.2	090	A	10226	9815	12:	2E	45		6	3	05-04	N
0646-649	087-IG41	06 46 37	-64 54.2	040	A	9856	8791	124	5A	15	55	2	5	05-05	N
0647-705	058- G14	06 47 08	-70 33.5	100		6932	6592	119	3A	16		2	5	05-06	N
0652-648	087- G49	06 52 49	-64 51.2	090		10262	9815	68	1E+3A	43		2	5	05-07	N
0656-529	162- G04	06 56 54	-52 55.3	090		5395	5070	45	6E	4		2	5	——	1
0705-540	162- G10	07 05 33	-54 04.3	014		——	——	—	——	——		2	5	05-08	N
0711-734	035-IG01	07 11 44	-73 25.5	090		3110	2830	80	6E+3A	7		2	5	——	1*
0712-516	207- G26	07 12 04	-51 38.1	090		2342	2050	72	2A	10		6	5	05-09	N
0713-514	207-IG30	07 13 53	-51 24.4	164	A	13112	12542	34	2A	15	28	6	5	05-10	N
0720-487	208- G04	07 20 29	-48 42.4	090	A	12276	11740	52	9A	20		5	5	05-11	N
0729-517	208- G18	07 29 44	-51 44.4	090		12067	11536	36	1E+7A	20		5	5	05-12	N
0733-522	208-IG24	07 33 33	-52 17.7	177	A	12327	11785	30	6E+3A	25:	66	5	5	——	2
				177	B	12265	11725	13	4E						
				177	C	12077	11545	14	3E	41					
0739-679	059-IG14	07 39 29	-67 55.4	103	A	20718	19714	200:	1E+1A		70	2	5	06-01	N
0742-515	208- G34	07 42 14	-51 33.7	174	A	2608	2305	135:	2A	10		6	5	06-02	N
0742-651	089- G01	07 42 21	-65 11.9	090		(0)		—	A			2	5	06-03	N
0750-641	089- G05	07 50 06	-64 08.0	045		17553	16760	—	2E	55		5	5	——	2
0806-615	124- G11	08 06 32	-61 34.4	114		——	——	—	——	——		2	4	06-04	N*
0807-616	124-IG12	08 07 02	-61 37.2	118		8138	7740	45	5E+3A	15		2	4	——	1*
0814-540	164-IG06	08 14 48	-54 01.8	186	A	9052	8621	15	5E	6:	20	2	5	——	1
				186	B	9053	8622	25	6E	6:					
				186	C	8970	8540	70	5E	6:					
0814-784	060- G01	08 14 03	-78 26.2	147	A	5639	5307	156	3A	23		2	5	06-05	N
0816-705	060-IG02	08 16 22	-70 30.4	090	A	20919	19917	140	2A	28	120	2	5	06-06	N
0816-717	060-IG03	08 16 48	-71 42.2	090		1440	1165	22	5E+1A	2		5	5	——	2*
0819-736	036-IG02	08 19 13	-73 36.5	090		14188	13584	91	5A	30		3	5	06-07	N
0820-752	036-IG03	08 20 52	-75 16.2	180	A	4687	4385	10:	5E	3:	8	2	5	——	1
				180	B	4901	4595	60	4E	3:					
0824-776A	018- G07	08 24 44	-77 41.3	180		5321	5015	219	3A	40		2	8	06-08	N
0824-776B	018- G08	08 24 52	-77 39.3	180		5462	5146	94	2E+2A	23		2	8	06-09	N
0825-776	018- G09	08 25 41	-77 37.0	090		5341	5035	9:	9E+1A	18		5	8	——	N
0830-596A	124- G18	08 30 36	-59 36.9	090	A	6564	6200	35	6E	43	82	2	4	——	1
				090	A	6464	6102	14	6E+4A			5			N
				090	A	6436	6071	29	6E+2A			5			N
				090	B	6517	6150	92	4E						
				090	C	6445	6080	23	4E						
				090	D	6420	6055	20	5E						
0830-596B	124- G19	08 30 50	-59 36.7	090		6509	6145	45	5E	16		2	4	——	1
				090	A	6411	6050	13	3E+3A			5			N
				090	B	6305	5946	20	3E+3A						
				090	C	6467	6106	23	3E+2A						
0846-727	036- G08	08 46 32	-72 46.4	090		8091	7711	209	1E+3A	20		2	5	06-10	N
0850-387	313-G216	08 50 33	-38 42.7	090		18918	18060	250:	2A	22		6	6	06-11	N
0852-688	068-IG16	08 52 04	-68 50.5	100		13885	13285	60	5E+3A	40		2	5	——	1
0853-735	036-IG13	08 53 40	-73 34.4	042		7620	7253	151	1E+5A	22		2	5	06-12	N
0900-640	090-IG14	09 00 40	-64 04.4	156	A	6760	6395	55	6E+1A	20	45	2	3	——	1
				156	B	6512	6155	40	6E+1A	15:					
0901-647	090- G15	09 01 12	-64 42.4	144	A	1669	1375	20	7E			5	3	——	N
				144	B	1799	1505	13	4E						
				144	C	1785	1491	16	4E						
				144	D	1628	1334	6:	3E						
				144	E	1586	1292	8:	4E						
				144	A	1687	1396	56	6E	22		2			1,N
0901-681	060-IG23	09 01 47	-68 06.0	090		4100	3790	50	5E+3A	13		2	5	——	1
0902-680	060- G24	09 02 03	-68 01.7	055	A	4124	3814	55	6A	54		5	5	07-01	N
				055	B	4129	3819	15:	2A						
0902-677	060- G725	09 02 58	-67 46.0	165		(0)		—	4A			2	5	07-02	N
0907-756	036- G19	09 07 01	-75 36.3	090		4602	4302	53	2E+4A	37		5	5	——	N
0911-586	126- G01	09 11 17	-58 38.1	100		2874	2565	50	5E	6		2	5	——	1
1001-442	262- G18	10 01 51	-44 17.8	132	A	3654	3341	130	1E+2A	7		2	4	——	1,N
				090	A	3523	3206	19	5E+1A			5			N
				090	B	3356	3041	29	4E+1A						
				090	C	3557	3240	13	6E+1A						
1003-438	263-IG01	10 03 42	-43 52.4	107	A	6286	5933:	—	2A	7	21	2	4	07-03	N
1003-441	263-PN02	10 03 44	-44 07.1	090		33		20	E			2	4	——	N
1026-439	263-IG42	10 26 58	-43 54.3	090		2864	2558	118	5A	65		2	4	07-04	N
	NGC 3262, IN SE 77/6														
1034-425A	264- G12	10 34 25	-42 35.6	090		4538	4216	106	7A	15		2	4	07-05	N
1034-425B	264-IG13	10 34 55	-42 35.7	103	A	10543	10080	30	4A	25	45	2	4	07-06	N
	MCG-07-22-25			103	B					23					
				090	C	4100	3784	27	3A	13		2	-	07-06	N
1037-460	264- G26	10 37 34	-46 04.6	189		6369	6011	106	5A	30		2	4	07-07	N
1038-460	264- G32	10 38 29	-46 03.3	090		6968	6595	206	3A	35		2	4	07-08	N
1050-461	264- G46	10 50 12	-46 06.1	090		5904	5559	191	3A	40:		2	4	07-09	N
1056-497	215- G13	10 56 41	-49 42.3	175		2756	2458	12:	3E	25		7	5	07-10	N
1057-511	215- G14	10 57 07	-51 10.4	090		5581	5342	40	11E	25		5	5	——	2
1103-504	215-IG20	11 03 18	-50 24.2	080	A	5193	4864	16	12E+2A	9:	18	5	5	——	2
				080	B	5204	4874	18	9E	9:					
1108-488	215- G31	11 08 18	-48 49.9	130		2722	2427	30	7E+2A	36		5	5	——	2
				130	A	2725	2430	31	2E+2A			6			N
				130	B	2692	2398	17	2E						
1109-477	215- G32	11 09 05	-47 44.8	090		4341	4028	70	1E+3A	21		5	5	——	2
1109-476	215-IG33	11 09 36	-47 38.8	065		4342	4029	24	13E+1A	18		2	5	——	2
1113-484	215- G37	11 13 17	-48 29.2	090		5506	5175	46	6A	70		5	5	07-11	N
1115-484	216- G03	11 15 56	-48 28.4	092	A	4684	4367	68	6A	35		2	4	07-12	N
1127-508	216-IG11	11 27 36	-50 51.5	090	A	19721	18808	117	3A	50	110	2	4	08-01	N
1132-499	216- G16	11 32 05	-49 55.8	090	A	4511	4202	81	5A	16		2	4	08-02	N
1132-451	266-IG05	11 32 43	-45 06.7	055	A	5402	5082	27	1E+7A	40	50	5	4	——	N
	MCG-07-24-03			055	B	5130	4814	20	5E	16					
1147-493	217- G09	11 47 39	-49 20.4	090		3349	3060	13	8E	16		5	5	——	2
1155-508	217- G16	11 55 45	-50 51.4	090		5112	4801	32	9A	35		5	5	08-03	N
1200-439	267-IG09	12 00 08	-43 55.9	080	A	6793	6456	20	5E	25		6	4	——	N
	MCG-07-25-02?			080	B	6921	6581	21	6E						
1219-430	267-IG41	12 19 18	-43 03.4	090	A	7039	6705	70	3E	35	57	2	4	——	1,N*
	MCG-07-26-01 = SE 90/3			090	B	7115	6780	20	8E	10					
				090	A	7114	6779	50	3E+3A			6			N
				090	A	7063	6728	20	2E			6		,	N
1222-500	218-IG04	12 22 24	-50 01.4	075	A	12260	11752	134	3A	21	55	2	4	08-04	N
1229-406	322-IG23	12 29 38	-40 38.6	071	A	19561	18698	151	3A	17	35	2	4	08-05	N
				071	B	20419	19500	159	4A	17					
				078	A	19801	18908	——	1A			6			N
1239-395	322-IG54	12 39 17	-39 32.7	135	AB	——	——	—	——	——		2	4	08-06	N
1254-428	269- G13	12 54 03	-42 51.4	150		3830	3570	55	5E	23		2	4	——	1,N
	MCG-07-27-20														

TABLE I *(continued).*

IDENT (1)	ESO NO. (2)	R.A. (1950) (3)	DECL. (4)	ANG (5)	COM (6)	CZ (7)	V0 (8)	SIG (9)	LINES (10)	DC (11)	DS (12)	EQP. (13)	LIST (14)	FIG. (15)	REF. (16)
1254-439	269-IG17	12 54 25	-43 57.3	090	A	9268	8885	117	1E+2A	16	25	2	4	08-07	N
1256-435	269-IG23	12 56 08	-43 34.0	112		9190	8815	50	5E	28:		2	4	———	1
	MCG-07-27-21														
1259-425	269- G35	12 59 12	-42 30.2	090		3749	3496	77	4A	37		2	4	08-08	N
	NGC 4989 = MCG-07-27-28														
1307-429	269-IG56	13 07 09	-42 56.8	090		(07)		—	A			2	4	08-09	N
	MCG-07-27-37, IN SE 1/2/4														
1307-461	269- G57	13 07 10	-46 10.2	090		3110	2865	93	7A	60		2	4	08-10	N
	SE 94/4														
1309-474	269- G64	13 09 19	-47 24.2	167		12253	11780:	—	1E	30:		2	4	08-11	N
1310-432	269- G72	13 10 41	-43 15.7	090		6555	6260	50	5E+2A	30		2	4	———	1
	MCG-07-27-47														
1325-486	220- G13	13 25 42	-48 39.5	108		3079	2840	123	1E+3A	45		2	4	08-12	N
	NGC 5156														
1328-432	270-IG16	13 28 32	-43 16.1	176	A	20305	19419	58	3A	50		2	4	09-01	N
1334-495A	220- G22	13 34 08	-49 32.1	090	A	(100)			6A			2	4	09-02	N
				090	B	(0)			2A			2			N
1334-494	220- G23	13 34 13	-49 29.6	030		3193	2958	64	2A	20		2	4	09-03	N
1334-495B	220- G24	13 34 24	-49 35.0	048		3680	3435	35	8E	18		2	4	———	1
	NGC 5234														
1334-425	270-IG22	13 34 40	-42 35.6	142		433	221	55	5E	2		2	4	———	1,N*
	NGC 5237 = MCG-07-28-05			142		373	164	22	4E			6			N
1337-507	220- G27	13 37 00	-50 47.0	090		4075	3826	150	4A	20		3	4	09-04	N
	IC 4311														
1337-508A	220- G28	13 37 05	-50 53.4	082		3747	3504	105	1E+1A	35		2	4	09-05	N
1337-508B	220- G29	13 37 23	-50 49.1	090		4031	3786	106	5A	17		2	4	09-06	N
	IC 4312														
1339-479	220- G33	13 39 56	-47 55.1	019		3195	2962	53	6A	35		2	4	09-07	N
	NGC 5266														
1342-395	325-IG12	13 42 19	-39 33.9	105	A	9640	9292	260	2A	16	35	2	4	09-08	N
				105	B	9666	9316	13:	1E+1A	8					
1344-376	325- G19	13 44 02	-37 38.9	011	A	11388	10986	158	4A	10	30	2	4	09-09	N
	MCG-06-30-24?			011	B	11331	10835	196	4A	10					
1356-422	325-IG41	13 56 02	-42 15.9	090		1620	1420	40	7E	1		2	4	———	1*
				020		1666	1465	22	4E			6			N
1414-476	221- G37	14 14 56	-47 46.8	090		4742	4512	84	4A	25		2	4	09-10	N
1419-717	067-IG01	14 19 34	-71 46.4	067	A	12470	11985	55	6E	34:	42	2	4	———	1
				067	B	12015	11550	20	3E	—					
				067	C	12105	11635	40	5E	4:					
1423-494	222- G05	14 23 22	-49 26.8	090		4028	3809	158	3A	17:		2	4	09-11	N
1445-437	273-IG04	14 45 26	-43 43.4	090	A	11560	11165	40	9E	48:	100	2	4	———	1
				090	A	11341	10965	57	6E			2			
1452-376	327-IG30	14 52 24	-37 36.2	190		7161	6929:	—	1E	35		6	4	09-12	N
1452-374A	386- G33	14 52 58	-37 29.6	090		2952	2794	68	4A	17		2	6	10-01	N
	MCG-06-33-03														
1452-374B	386- G34	14 52 59	-37 26.7	090		7364	7131	22	8A	44		2	6	10-02	N
	MCG 06-33-04														
1453-374	386-IG39	14 53 16	-37 24.0	180		2703	2545	149	2E+1A	20		2	6	10-03	N
	MCG 06-33-06														
1454-429	273-IG12	14 54 26	-42 55.8	090	A	4875	4677	45	5E	15	45	2	4	———	1
	IC 4518 = MCG-07-31-03			090	B	4967	4767	50	10E+2A	45					
1501-433	273- G15	15 01 51	-43 18.9	090		4994	4799	137	1E+2A	40		2	4	10-04	N
	IC 4523 = MCG-07-31-05														
1514-424	328-RN740	15 14 19	-42 26.4	090		(0)			A			6	6	10-05	N
1519-429	274- G12	15 19 06	-42 57.4	180		8630	8365	83:	2A	15		2	4	10-06	N
1609-608	137-IG03	16 09 27	-60 52.6	090	A	3100	2918	90	4A	5:		3	3	10-07	N
				090	B	4911	4705	36	4A	8:		3	3	10-07	N
1610-607	137- G06	16 10 43	-60 46.9	090		5471	5255	123	4A	30		3	3	10-08	N
1611-607	137- G08	16 11 25	-60 47.7	090		4073	3857	88	4A	15		2	3	10-09	N
1722-688	138- G28	17 22 35	-68 50.3	090		1920	1770	55	5E	8		2	3	———	1
	IC 4653														
1755-466	279- G14	17 55 52	-46 38.7	090		5706	5585	145	2A	13		2	3	10-10	N
1809-376	335-IG03	18 09 40	-37 41.3	104	A	7620	7501	79	5A		25	2	4	10-11	N
1817-511	230-IG03	18 17 20	-51 06.5	090	A	———	———	—	———	—		2	4	10-12	N
1822-716	071- G11	18 22 00	-71 38.4	165		4036	3846	59	6A	20:		2	3	11-01	N
	IC 4704														
1822-717	071- G12	18 22 16	-71 43.5	090		2978	2799	106	4A	12		2	3	11-02	N
	IC 4705														
1827-633	103-IG26	18 27 49	-63 19.7	090		2676	2537	22:	3A	7		2	4	11-03	N*
	NGC 6630														
1829-462	281-G707	18 29 50	-46 17.0	090		———	———	—	———	—		2	4	11-04	N
1835-463	281-IG22	18 35 51	-46 18.3	169	A	12496	12187	83	6E+3A	15	40	2	4	11-05	N
				169	B	12335	12032	101	3E+1A	15					
				169	A	12450	12142	22	5E			6			N
				169	B	12389	12082	52	3E						
1836-551	183-IG07	18 36 25	-55 07.2	090		5425	5280	35	7E	9		2	3	———	1*
1840-624	140- G43	18 40 15	-62 25.0	090		4305	4151	30	8E	40		2	3	———	4
	FAIRALL-51														
1918-605	141-IG57	19 18 59	-60 34.3	046	A	3519	3390	15	2E	4:	10	2	3	———	1*
				046	B	3850	3720	40	5E	2:					
1952-667	105-IG18	19 52 26	-66 42.2	143	A	11681	11324	80	2E+1A	14	38	6	3	11-06	N
				143	B	11853	11491:	·	1E	14					
1957-420	339- G21	19 57 19	-42 05.8	090		5440	5385	190	2A	19		2	6	11-07	N
1957-472	284-IG08	19 57 22	-47 12.5	073	B	6359	6258	42	3E+1A	25:		6	4	———	N*
	NGC 6845 = SE 135/3														
2001-603	143- G07	20 01 57	-60 21.2	090		———	———	—	———	—		3	4	11-08	N
	IC 4938														
2010-383	340- G03	20 10 57	-38 19.2	158		5846	5802	57	5A	15		2	6	11-09	N
	MCG-06-44-21														
2010-596	143- G14	20 10 04	-59 38.6	090		6463	6303	105	1E+1A	22		3	4	11-10	N
	FAIRALL-67														
2021-343	400- G15	20 21 32	-34 22.0	090		12009	11803	72	2A	25		7	6	11-11	N
	MCG-06-44-32														
2022-406	340- G27	20 22 01	-40 37.6	090		7737	7636	44	3E+1A	16		2	6	11-12	N
2022-410	340- G29	20 22 45	-41 05.7	090		9340	9194	26	4E	40		6	6	12-01	N
	MCG-07-42-05														
2023-397	340- G32	20 23 37	-39 46.8	148	A	2690	2686	9:	6E	7		2	6	12-02	N
				148	B	2532	2529	49	6E						
2024-447	285-IG14	20 24 30	-44 46.5	090		12231	11966	114	1E+5A	75		7	5	12-03	N
2032-536	186-IG66	20 32 28	-53 36.2	078	A	4789	4690	63	4E		12	6	4	12-04	N
				078	B	4702	4604	20	4E						
2038-381	341-IG06	20 38 23	-38 09.9	090		6969	6906	200:	4A	18		2	6	12-05	N
	MCG-06-45-09?														
2041-411	341-G710	20 41 13	-41 08.1	090		———	———	—	———	—		2	6	12-06	N
2045-394	341-IG16	20 45 58	-39 24.5	200		12689	12433	200:	1E+5A	30		2	6	12-07	N
	IC 5056?														
2050-396	341-G720	20 50 49	-39 39.3	090		(0)			2A			2	6	12-08	N
2100-402	341- G36	21 00 53	-40 12.2	104		6893	6822	130	2E+1A	20		2	6	12-09	N
2127-406	343- G01	21 27 13	-40 39.5	090		4993	4958	51	3A	30		2	6	12-10	N
	MCG-07-44-14														
2131-410	343- G08	21 31 25	-41 02.4	039	A	5161	5121	56	2E+3A		30	2	6	12-11	N
	NGC 7087 = MCG-07-44-25			039	B	5121	5082	67	2E+1A						
				039	C	5277	5234	65	2E+2A						
2131-409	343- G09	21 31 40	-40 56.6	185		6752	6680	62	2E+3A	25		2	6	12-12	N
2209-383	344- G14	22 09 50	-38 22.5	090		10678	10499	115	1E+4A	70		2	6	13-01	N
	IC 5175 = MCG-06-48-29														
2211-658	108-IG21	22 11 36	-65 48.0	090		3195	3054	21	6E	22		6	1	13-02	N
2259-694	077-IG01	22 59 44	-69 28.8	030		3901	3732	6:	2E	25		3	5	13-03	N
	IC 5279?														
2304-280	469-IG14	23 04 44	-28 05.2	090		3779	3804	33	3E	9		7	6	13-04	N
2323-547	192- G01	23 23 31	-54 47.2	090	A	———	———	—	———	—		3	6	13-05	N
2329-560	192-IG05	23 29 38	-56 03.5	162	A	19647	18918	210	3A	25	50	2	6	13-06	N
2354-649	078- G10	23 54 35	-64 57.6	090		1935	1792	63	4E	2:		2	5	13-07	N

Notes to table I :

All objects with "N" in column (16) are included.

Objects with "*" in column (16) have been observed photometrically (Table 3).

0012-354 (350-IG03: Fig. 1- 1) : Bridge to component (b). Spectrum somewhat underexposed. Velocity from 5892 (broad,strong) and 4861 (weak) in absorption.

0013-333 (350- G04: Fig. 1- 2) : Spectral resolution good, but no lines can be discerned. Possible bridge to component (b).

0020-343 (350- G11: Fig. 1- 3) : Bright centre. Faint 3727 in emission and 3969, 5175 and 5892 in absorption.

0030-325 (350- G33 = IC 1554: Fig. 1- 4): Bright centre. 6584, 6563 and 4861 as well as very faint 3727 in emission. 3933, 3969 and 5892 in absorption.

0034-338 (350-IG38: Fig. 1- 5) : Double system. Very bright star-like centre. Strong emission lines: 6584, 6563, 5007, 4959, 4861, 4341, 4101, 3969. I(4959)=I(4861). Line widths > 300 km/s. Approaching Seyfert 2 type. Indication of rotation: dV = -150 km/s, relative to centre, 8" W of centre.

0102-643 (079- G16) : New measurement of object in Cat II (cz = 5942 km/s).

0123-375 (296- G29: Fig. 1- 6) : Triple system in common envelope (?). 4304 and 5892 very strong in central component (a).

0128-332 (353- G07: Fig. 1- 7) : Very bright centre, most probably galactic star: cz = 0 km/s, late-type spectrum, 3933, 3969 and 4304 in absorption.

0132-363 (353- G20: Fig. 1- 8) : Featureless continuous spectrum, only visible line tentatively identified with 5892.

0136-331 (353-IG30: Fig. 1- 9) : Exposure time 60 min with L.C. 1m and Carnegie tube at 284 A/mm, but still underexposed. No lines measurable, no emission. Double system.

0140-335 (353- G33: Fig. 1-10) : Several star-like condensations. 6563, 5007, 4959, 4861 and 3727 in emission. I(5007)=I(6563). 5175 and 3969 in absorption.

0140-344A (353- G34 = IC 1722: Fig. 1-11) : In group with IC 1724. (a) is centre, (b) is H II region, 15" SW of centre. Weak emission lines: 6563, 5007, 4959, 4861 and 3727.

0140-344B (353- G35 = IC 1724: Fig. 1-12) : In group with IC 1722. Double comparison spectrum, but night sky line r.m.s. < 2 A for this solution. 3933, 3969, 4304 and 5892 in absorption.

0141-344 (353- G36: Fig. 2- 1) : The velocity shows that this galaxy most probably belongs to IC 1722/1724 group. Very weak 6584, 6563 and 3727 in emission. Also weak 3933, 3969, 4304 and 5175 in absorption.

0141-339 (353- G38: Fig. 2- 2) : Diffuse object, no central condensation. velocity from 6563 and 3727 in emission, 3969 and 5175 in absorption. No [O III].

0147-351 (353- G50 = NGC 696: Fig. 2- 3) : No emission. Strong 3933 and 3969. Large, lenticular, edge-on.

0147-350 (353- G51 = NGC 698: Fig. 2- 4) : Underexposed. No lines visible, no emission. Most probably member of the NGC 696 group.

0203-554 (153-IG16) : New, improved measurement of object in Cat II (cz = 5981 km/s). Comparatively weak 6563, 5007, 4959, 4861 and 3727 in emission. Underlying early-type absorption spectrum.

0212-414 (298-IG24: Fig. 2- 5) : Bright centre in (a) with 3933,3969, 4101 and 4861 in absorption.

0213-367 (355- G01: Fig. 2- 6) : N-galaxy. Semi-stellar nucleus. 6563 and 6584 in emission (medium strength). 3969 in absorption.

0215-350 (355- G04: Fig. 2- 7) : Low-surface luminosity spiral with condensations. Strong sky background in spectrum: no lines visible. No emission in condensations.

0219-358 (355-IG09: Fig. 2- 8) : Peculiar shape. 50 min exposure with L.C. 1m and Carnegie tube at 284 A/mm, but still underexposed. No lines visible. Perhaps not well aligned in slit.

0223-406 (299-IG01: Fig. 2- 9) : Double system with interaction. Relatively strong absorption features in (a) identified with 4226, 5175 and 5268. Spectrum of (b) underexposed, no lines visible.

0228-496 (198-IG17: Fig. 2-10) : Bright centre with extension towards W. Strong emission 6563, 5007, 4959 and 4861. 5175 in absorption.

0228-344A (355- G20 = IC 1811: Fig. 2-11) : SBa-galaxy. Late-type absorption spectrum: strong 3933, 3969 and 4226. In group with IC 1813.

0229-362 (355- G24 = NGC 964: Fig. 2-12) : Velocity similar to IC 1811 and 1813: in same group? Bright nucleus. Broad, diffuse lines, early-type spectrum. Weak 6563 and 4861 in emission. Velocity based on 6563 (E) and 3969, 4304, 5175, 5268 and 5892 in absorption. Large system.

0235-339 (355-IG31: Fig. 3- 1) : Double system. 3933, 3969, 4304 and 5175 in component (a). Spectrum of (b) underexposed: no emission lines.

0316-576 (116-IG15) : New, improved measurement of object in Cat. I (cz = 8575 km/s). Strong emission.

0325-369 (358-IG07: Fig. 3- 2) : Peculiar shape. Bright star-like "centre" in SE part. Wide, diffuse lines. Weak 6563 in emission, 5175 and 5892 in absorption. Rather high dispersion in velocities of individual lines.

0337-336 (358-IG47: Fig. 3- 3) : Interacting, very large system. Slit placed across brightest knot (a). Weak emission: 6731, 6717, 6563, 5007, 4861 and 3727. Strong 4226 and 5892 in absorption, i.e. late-type. (b) was not observed.

Notes to table I *(continued).*

0338-712 (054-IG15: Fig. Cat.II): Remeasurement of object in Cat. II (cz = 14554 km/s). A 3.6 M picture of this peculiar object was published by West et al. (1978). Two spectra were obtained with the B & C spectrograph at the 3.6 m. Thanks to the better resolution, the velocities of the individual components could be determined. Knots (1) and (4) are emission regions of low excitation and have faint spectral continua, (3) has very strong emission lines superposed on a stronger continuum, and (2) has weak emission lines on strong, featureless continuum. We now see that the velocity in Cat. II refers to knot (4) and that the apparent width of the lines in the original, low-dispersion spectrum was due to internal motion. Note the large velocity differences among the objects (1) to (4).

0343-361 (358- G59: Fig. 3- 4) : 3933, 3969, 4304 and 6563 (!) in absorption. Small, nearby object.

0344-365 (358- G61: Fig. 3- 5) : Despite long exposure (50 min) underexposed. Featureless continuum. No emission lines.

0344-350 (358- G63: Fig. 3- 6) : Although this object is apparently large, it has not been numbered before it was included in the ESO/Uppsala Survey. Featureless, diffuse spectrum. Weak emission line is identified with 6563. This line can be followed over most of the slit width and indicates rotation. (a) refers to centre, (b) to knot 16" SE of centre. Spectrum should be repeated at higher dispersion.

0345-338 (358- G65 = IC 1993: Fig. 3- 7) : Very large, diffuse centre. Well exposed spectrum with good resolution, but no lines visible in featureless continuum.

0346-368 (358- G67: Fig. 3- 8) : Several star-like condensations around centre. (a) is the centre, it has moderately strong emission 6563, 5007, 4861 and 3727. 3933, 3969 and 5175 in absorption. (b) and (c) are low-excitation emission regions, 2" W and 5" E of centre, respectively.

0416-502 (202- G04 = NGC 1556: Fig. 3- 9) : Large, diffuse centre (a) with strong emission. (b) is bright area, 10" S of centre and (c) is H II region, 23" N of centre. Rotation along N-S axis ?

0417-392 (303-IG11: Fig. 3-10) : Most peculiar configuration ("Necklace"). The first spectrum, which was obtained with the L.C. 1 m, showed the integrated spectrum of (a,b,c) with a faint 3727 in emission. Better resolution was obtained at the 3.6 m and two spectra show that there is 6563, 5007, 4861, 4341 and 3727 in emission in (c), whereas (b) and (c) have absorption only (3933, 3969 and 4304). Note the rather large velocity difference between (a) and (b,c). Very compact group.

0451-456 (251-IG40: Fig. 3-11) : Double system. 3933, 3969 and 5892 in absorption in (a). (b) not observed.

0459-748 (033- G06: Fig. 3-12) : No lines visible in spectrum. Galactic star superposed on centre ?

0501-448A (252- G05: Fig. 4- 1) : In pair with 252-G06. 3969, 4304, 5175 and 5892 in absorption.

0501-448B (252- G06: Fig. 4- 1) : In pair with 252-G05. Same absorption lines as G05.

0501-749 (033-IG09: Fig. 4- 2) : Star-like centre. Weak emission: 6563, 5007, 4861 and 3727. 3933, 3969, 5175 and 5892 in absorption.

0513-453 (252-IG13: Fig. 4- 3) : Underexposed, continous spectra of both components, but no lines measurable. No emission.

0532-724 (056-G?143:Fig. 4- 4) : Underexposed, no lines visible. Not Emission Nebula, as surmised in ESO/Uppsala List No. 5.

0547-477 (205-IG03: Fig. Cat.II): Supplementary measurement of component (b) of this object. (a) is included in Cat. II (cz = 15130 km/s). Weak 3727 in emission and 3933, 3969 and 4102 in absorption in (b). Early-type spectrum. Note large velocity difference between (a) and (b).

0550-343 (364- G07: Fig. 4- 5) : Somewhat underexposed. Comparatively strong absorption feature tentatively identified with 4304. No other features visible. This velocity is close to that of the nearby galaxy IC 2153.

0556-428 (254-IG07: Fig. 13- 8) : The slit was placed through a,b,c and d, however, (d) was just outside slit jaw. (c) is a galactic star, the spectrum of (d) is overexposed. (a) has 6584, 6563 and 4861 in emission on very weak continuum.

0558-339 (364-IG22 = IC 2153: Fig. 4- 6) : Diffuse object. (a) is the centre, (b) and (c) are condensations, 8" WSW and 9" ENE of the centre, respectively. Emission in all three objects. Rotation.

0608-340 (364- G37 = NGC 2188) : Strong emission lines. (a) is the centre, (b) and (c) refer to emission knots, 16" and 22" N of the centre, respectively. Also in Revised S-A Catalog (cz = 743 km/s) and Second Reference Catalogue of Galaxies (cz = 687 km/s).

0611-450 (254-IG37: Fig. 4- 7) : Two elliptical components in common envelope ? Velocity of (a) from 3969, 4304 and 5175, of (b) from 4304 only. The apparently rather large velocity difference should be verified.

0615-601 (121-IG21: Fig. 4- 8) : Bright star-like center. No emission. 3933, 3969 and 4304 in absorption.

0617-593 (121-RN?22: Fig. 4- 9) : Star superposed on galaxy or galactic reflection nebula ? Measured velocity from 6563 in emission and 4304 and 5268 in absorption. Verification desirable.

0623-609 (121-IG28: Fig. 4-10) : This galaxy was incorrectly identified (as 121-G45) in the paper by Borchkhadze and West (1978). Connected with compact (b).

0623-586 (121-IG31: Fig. 4-11) : Peculiar S-shape. 3933, 3969, 4861, 5175 and 5892 in absorption. No emission in knot (a).

0628-547 (161-IG10: Fig. 4-12) : Weak lines. Velocity of (a) from 4304 and 5175, of (b) from broad feature, tentatively identified as 4304. Should be verified. No emission.

0633-707 (058-IG06: Fig. 5- 1) : Only 6563 in emission measurable on rather strong sky background. This line appears to be present in both components.

0634-618 (121-IG39: Fig. 5- 2) : Diffuse 4304 and 5892 in absorption. (b) not observed.

0639-584 (122-IG01): New, improved measurement of object in Cat. II (cz = 2669 km/s). 6563 and 4861 in emission. 3933, 3969, 4304 and 5175 in absorption. Rotation.

0640-584 (122-IG02): New, improved measurement of object in Cat. II (cz = 2744 km/s). 6584, 6563, 5007, 4861, 4341 and 3727 in emission.

0642-661 (087-IG35: Fig. 5- 3) : Weak 6563 and 3727 in emission in (a). (b) not observed.

0643-566 (161-IG24: Fig. 5- 4) : Peculiar spiral. Weak emission: 6584, 6563. (b) may belong to the system, but was outside slit.

0646-649 (087-IG41: Fig. 5- 5) : Slit angle wrong, only spectrum of (a) was obtained. Weak 3727 in emission, 3933, 3969, 5175 and 5892 in absorption. Common envelope ?

0647-705 (058- G14: Fig. 5- 6) : Very late-type spectrum. Very strong 4226 and 5892.

0652-648 (087- G49: Fig. 5- 7) : 6563 in emission, 3933 and 3969 in absorption. No 4304 visible. Also observed by Fairall (1980a) as F261 (cz = 10190 km/s).

0705-540 (162- G10: Fig. 5- 8) : Spectrum well exposed, but not optimally focussed. No lines visible.

0712-516 (207- G26: Fig. 5- 9) : Pair with 207-G27. Note faint, outer ring, diameter - 50". Two features identified with 5175 and 5892.

0713-514 (207-IG30: Fig. 5-10) : Double system. 5892 and 5175 in absorption in (a). No emission in either (a) or (b).

0720-487 (208- G04: Fig. 5-11) : Late-type absorption spectrum.

0729-517 (208- G18: Fig. 5-12) : Weak 6563 in emission. Strong 3933 and 3969 in absorption.

0739-679 (059-IG14: Fig. 6- 1) : Velocity from weak 4861 in emission and moderately strong 4304 in absorption. Spectrum of (b) underexposed, but apparently without emission.

0742-515 (208- G34: Fig. 6- 2) : Underexposed. Two relatively weak absorption features identified with 5175 and 5892. (b) is a galactic star.

0742-651 (089- G01: Fig. 6- 3) : Galactic star superposed on centre. Absorption lines at V = 0 km/s. No galaxy lines visible.

0806-615 (124- G11: Fig. 6- 4) : Weak absorption lines on diffuse continuum. High sky background. Not measurable.

0814-704 (060- G01: Fig. 6- 5) : Semistellar nucleus, multiple spiral arms. Faint absorption lines: 5175 and 5268. (b) is a galactic star with low velocity.

0816-705 (060-IG02: Fig. 6- 6) : Only 3933 and 3969 measurable in (a). (b) outside slit and therefore not observed.

0819-736 (036-IG02: Fig. 6- 7) : 3933, 3969, 5175 and 5892 in absorption.

0824-776A (018- G07: Fig. 6- 8) : Broad, shallow absorption lines: 3969, 4304 and 5175. In group with 018-G08 and G09.

0824-776B (018- G08: Fig. 6- 9) : 6563 and 6584 in emission. 3933, 3969 and 5892 in absorption. In group with 018-G07 and G09. Relatively bright center.

0825-776 (018- G09): New, improved measurement of object in Cat. II (identified as 018-Ga with cz = 5320 km/s). Very strong, broad emission of 6731, 6717, 6584, 6563, 6548, 5007, 4959, 4861, 4341, 4101 and 3969. In group with 018-G07 and G08.

0830-596A (124- G18) : In pair with 124-G19. (a) is the center, (b), (c) and and (d) are H II regions, 16" E, 6" W and 21" W of centre, respectively. Emission in all four objects. This galaxy was also observed by Fairall (1980a) as F275 at cz = 6330 km/s.

0830-596B (124- G19) : In pair with 124-G18. 6584, 6563 and 4861 in emission. (a) is centre, (b) and (c) are H II regions, 5" E and 6" W of the centre, respectively.

0846-727 (036- G08: Fig. 6-10) : Weak 3727 in emission. 4304 in absorption.

0850-387 (313-G?16: Fig. 6-11) : Overexposed. Strong features identified with 5175 and 5892. No emission. Possibly wrong identification.

0853-735 (036-IG13: Fig. 6-12) : Broad 6563 in emission. 3933, 3969, 4304 and 4341 in absorption.

0901-647 (090- G15: Fig. Cat.II): (a) is centre. (b), (c), (d) and (e) are emission regions, 11" and 6" NW, and 7" and 13" SE of centre, respectively. Velocity in paper by Borchkhadze and West (1978) was given as 1900 km/s, due to an error in the measurement. The spectrum was remeasured and the improved value (cz = 1687 km/s) is given here.

0902-680 (060- G24: Fig. 7- 1) : Pure absorption. (a) is centre and (b) is opposite on N-side of dust lane. Large object. In group with 060-IG23.

0902-677 (060-G?25: Fig. 7- 2) : Possibly galactic reflection nebula. Spectrum somewhat earlier than solar, 3933 and 3969 at V = 0 km/s.

0907-756 (036- G19): New, improved measurement of object in Cat. II (cz = 4746 km/s). Rather weak 6563 and 4861 in emission. Strong 3933 and 3969 in absorption.

1001-442 (262- G18) : Correction to V given in article by Borchkhadze and West (1978). New measurement with 3.6 m at 114 A mm shows emission at centre (a) and in two low-excitation knots, (b) and (c), 9" E and 8" W of centre, respectively.

1003-438 (263-IG01: Fig. 7- 3) : Heavily reddened galaxy. Spectrum shortward of 4500 A not recorded. Velocity is based on strong 5175 and 5268. Spectrum of component (b) has small velocity, probably because of contamination from galactic star (c).

1003-441 (263-PN02) : Planetary Nebula, cf. West and Schuster (1980). Not galaxy, as indicated in ESO/Uppsala List no. 4.

1026-439 (263-IG42=NGC 3262: Fig. 7- 4) : Overexposed. Weak absorption lines: 3933, 3969 and 4304. Very large object. On 3.6 m plate is seen weak arm, extending towards E, with several knots in a group about 40 kpc (projected) E of centre (not shown in Figure).

1034-425A (264- G12: Fig. 7- 5) : Near 264-IG13, but velocity very different. However, velocity similar to 264-IG13c. Bright centre.

1034-425B (264-IG13: Fig. 7- 6) : Diffuse, broad lines in (a). The velocity was measured from 3969, 4101, 4341 and 5175. The spectrum of (b) was not recorded separately. (c) is another galaxy, 3.4 arcminutes due E of IG13. (c) has nearly same velocity as 264-G12.

1037-460 (264- G26: Fig. 7- 7) : Strong 3933,3969, 4304 and 5175. Bright centre.

1038-460 (264- G32: Fig. 7- 8) : Star-like object near centre, apparently superposed galactic star with small velocity (3933 and 3969 near V = 0 km/s). Galaxy velocity from 3933, 3969 and 4304 in absorption. Probably in group with 264-G26 (and 264-IG30).

1050-461 (264- G46: Fig. 7- 9) : Very weak absorption lines: 3933, 3969 and 4226. Spectrum should be repeated. Two-arm barred spiral.

Notes to table I *(continued).*

1056-497 (215- G13: Fig. 7-10) : Barred spiral, weak emission along bar: 6584, 6563, 5007.
1108-488 (215- G31) : New measurement of object in Cat. II (cz = 2793 km/s). (a) is centre and has strong emission 6584, 6563, absorption 5175 and 5892. (b) is 40" SE of centre and has 6584 and 6563 in emission, cf. Fig. 2h in Cat. II.
1113-484 (215- G37: Fig. 7-11) : Late-type absorption spectrum, strong 3933 and 3969. Very large, multiarmed spiral with comparatively bright centre.
1115-484 (216- G03: Fig. 7-12) : Pure absorption: 3933, 3969, 4226, 4304 and 5175. The objects 20" E and 15" W of the centre are galactic stars. Faint, outer halo.
1127-508 (216-IG11: Fig. 8- 1) : 3933, 3969 and 4304 in absorption in component (a). (b) was outside the slit and was not observed.
1132-499 (216- G16: Fig. 8- 2) : Possibly weak 6563 in emission, otherwise 3933, 3969 and 4304 in absorption. (b) was not observed.
1132-451 (266-IG05): Component (b) also in Cat. II (cz = 4948 km/s). Strong emission in both (a) and (b): 6563, 5007, 4959, 4861 and 3727. Velocity gradient over (a) along slit.
1155-508 (217- G16: Fig. 8- 3) : Wide 3933 and 3969. Only absorption.
1200-439 (267-IG09) : New observation of object in Cat. II (cz = 6821 (a) and 6931 (b) km/s). Strong emission.
1219-430 (267-IG41) : Also observed by Fairall (1979) as F156 at cz = 7350 km/s (a) and 7200 km/s (b). 6584 and 6563 in emission.
1222-500 (218-IG04: Fig. 8- 4) : 3933, 3969 and 4304 in absorption in component (a). (b) and (c) were outside slit and were not observed.
1229-406 (322-IG23: Fig. 8- 5) : The spectra of (a) and (b) are very similar: 3933, 3969, 4304 and 5175 in absorption. Note the large velocity difference. Spectrum with Eq. 6 underexposed, only 4861 visible in absorption.
1239-395 (322-IG54: Fig. 8- 6) : Weak spectra of (a) and (b) recorded, next to galactic star (c), on rather high sky background. No lines measurable.
1254-428 (269- G13) : Also observed by Fairall (1980b) as F317 at cz = 4000 km/s.
1254-439 (269-IG17: Fig. 8- 7) : Weak 6563 in emission in (a), 3933 and 3969 in absorption. Weak continuum from (b) recorded, no emission, not measurable.
1259-425 (269- G35=NGC 4909: Fig. 8- 8) : Nearly star-like centre. Broad, diffuse 6563 in emission (not used for velocity) and 3933, 3969, 4304 and 5175 in absorption.
1307-429 (269-IG56: Fig. 8- 9) : Low-surface brightness spiral galaxy, seen nearly edge-on. Very diffuse spectrum. Weak absorption lines at V = 0 km/s. Superposed galactic star(s) ? Should be repeated.
1307-461 (269- G57. Fig. 8-10) : Diffuse centre surrounded by wide ring. Strong absorption lines. Late-type spectrum. Very large object. Note also the remarkable symmetry between the two outermost spiral arms.
1309-474 (269- G64: Fig. 8-11) : Only 6563 in emission of medium strength. No absorption lines visible on well-exposed continuum.
1325-486 (220- G13 = NGC 5156) : Somewhat underexposed (stopped for clouds). Weak 6563 in emission and 3933, 3969 and 4304 in absorption. Also meaured by Martin (1976) at cz = 3000 km/s and Sandage (1978) at cz = 2832 km/s. The Revised Shapley-Ames Catalog gives cz = 2950 km/s. Remeasurement of object included in the paper by Borchkhadze and West (1978).
1328-432 (270-IG16: Fig. 9- 1) : (a) is the central object. Velocity from 3933, 3969 and 4304 in absorption. Spectrum somewhat underexposed. Weak, continuous spectra of two other objects, symmetrically placed N and S of (a) were recorded, but too faint to be measured (galactic stars ?).
1334-495A (220- G22: Fig. 9- 2) : In group with 220-G23 and G24. (a) and (b) are galactic stars. There is no trace of the galaxy spectrum.
1334-494 (220- G23: Fig. 9- 3) : Velocity confirms membership in 220-G24 group. Only 3933 and 3969 measurable.
1334-425 (270-IG22 = NGC 5237) : Also measured by Fairall (1979) as F160 with cz = 300 km/s. Remeasurement of spectrum in paper by Borchkhadze and West (1978).
1337-507 (220- G27=IC 4311: Fig. 9- 4) : In group with 220-G28 and G29. Very weak absorption lines: 3933, 3969 and 5175. Low surface brightness spiral. Should be reobserved.
1337-508A (220- G28: Fig. 9- 5) : In group with 220-G27 and G29. Broad, diffuse 6563 in emission. 3969 in absorption. No central condensation. Dust band ?
1337-508B (220- G29 = IC 4312: Fig. 9- 6) : In group with 220-G27 and G28. Weak absorption lines: 3933, 3969, 5175.
1339-479 (220- G33 = NGC 5266: Fig. 9- 7): Late-type absorption spectrum: 3933, 3969, 4304 and 5892. Also observed by Martin (1976) at cz = 3030 km/s and by Sandage (1978) at cz = 3201 km/s. The Revised Shapley-Ames Catalog gives cz = 3110 km/s.
1342-395 (325-IG12: Fig. 9- 8) : Double system. Component (a) is superposed by galactic star, just SE of centre. Weak 3727 in emission in (b).
1344-376 (325- G19: Fig. 9- 9) : Double system. Weak 3933, 3969, 5175 and 5892 in absorption in both components.
1356-422 (325-IG41) : Strong emission 6563, 5007, 4959 and 4861.
1414-476 (221- G37: Fig. 9-10) : Star-like nucleus. 3933, 3969 and 5892 in absorption. Faint outer halo.
1423-494 (222- G05: Fig. 9-11) : Somewhat underexposed. Late-type spectrum with strong 4226 in absorption. Reddened.
1452-376 (327-IG30: Fig. 9-12) : Two-armed spiral galaxy with bright centre. The velocity is measured from weak 6563 in emission and confirmed by 3727, also in emission, at extreme edge of spectrum (and thus not measured). Probably in group with 386-G34.
1452-374A (386- G33: Fig. 10- 1) : In group with 386-IG39. 3933, 3969 and 4226 in absorption.
1452-374B (386- G34: Fig. 10- 2) : Early type spectrum. Note velocity difference from 386-G33 and IG39.
1453-374 (386-IG39: Fig. 10- 3) : In group with 386-G33. Spectrum underexposed. Velocity from weak 6563 and 3727 in emission.
1501-433 (273- G15 = IC 5423: Fig. 10- 4) : Bright centre. Weak 6563 in emission. 3933 and 3969 in absorption. Should be reobserved.
1514-424 (328-RN?40:Fig. 10- 5) : Underexposed spectrum of central object shows late-type lines at cz = 0 km/s. Probably reflection nebula.
1519-429 (274- G12: Fig. 10- 6) : Underexposed. Velocity based on 5175 and 5268 only. Reddened.
1609-608 (137-IG03: Fig. 10- 7) : (a) and (b) are the brightest members in an obscured group of galaxies. Both (a) and (b) have late-type absorption spectra: 3933, 3969 and 4226. Note, however, the velocity differences between IG03(a,b), G06 and G08.
1610-607 (137- G06: Fig. 10- 8) : cf. 137-IG03. 3933, 3969 and 4304 in absorption.
1611-607 (137- G08: Fig. 10- 9) : cf. 137-IG03. 3933, 3969, 4304 and 5175 in absorption.
1755-466 (279- G14: Fig. 10-10) : This object is confirmed as a galaxy. Velocity from 5175 and 5892, both strong.
1809-376 (335-IG03: Fig. 10-11) : Heavily reddened double object (in envelope ?). Weak absorption lines from the W-most condensation. 335-G04 is also seen in the figure, no velocity yet available for this object.
1817-511 (230-IG03: Fig. 10-12) : A galactic star (b), just N of the centre (a), was on the edge of the slit. No galaxy lines are visible in the spectrum.
1822-716 (071- G11 = IC4704: Fig. 11- 1) : Strong absorption lines: 3933, 4304, 5175 and 6563 (!). Note difference in velocity between IC 4704 and IC 4705.
1822-717 (071- G12 = IC 4705: Fig. 11- 2) : Underexposed spectrum. 3933, 3969, 4304 and 4341 in absorption. Peculiar object with offset centre.
1827-633 (103-IG26 = NGC 6630: Fig. 11- 3) : 3933, 3969 and 4304 in absorption. Possible weak 6563 in emission. Another spectrum (Eq. 6) confirms 6584 and 6563 in emission, but can not be used for velocity determination, since the comparison spectrum was not exposed by mistake. However, an interpolation between the night sky lines gives a rough cz-value.
1829-462 (281-G?07: Fig. 11- 4) : No lines visible on smooth continuum. No emission, i.e. not PN.
1835-463 (281-IG22: Fig. 11- 5) : Double galaxy. Emission lines in (a): 6717, 6584, 6563, 6548, 5007 and 4861. (b) has weaker emission: 6717, 6563, 3727. 3933 and 3969 in absorption.
1952-667 (105-IG18: Fig. 11- 6) : Emission lines of medium strength in (a): 6584, 6563 and (3727). 6563 also present in spectrum of (b).
1957-420 (339- G21: Fig. 11-7) : Only 3969 and 4304 visible in otherwise featureless spectrum. Faint outer halo.
1957-472 (284-IG08=NGC 6845): New, improved measurement of object in Cat. II (cz = 6321 km/s). 6584, 6563 and 6548 in emission, 5268 in absorption.
2001-603 (143- G07 = IC 4938: Fig. 11- 8) : Underexposed. No lines visible.
2010-383 (340- G03: Fig. 11- 9) : 3933, 3969, 4304, 5175 and 5892 in absorption.
2010-596 (143- G14: Fig. 11-10) : Only 6563 in emission and 5892 in absorption. No [O III] as suggested by Fairall (1977).
2021-343 (400- G15: Fig. 11-11) : Overexposed, only 3933 and 3969 visible. Star-like centre in diffuse halo.
2022-406 (340- G27: Fig. 11-12) : Faint, star-like centre. Weak 6584, 6563, 4861 in emission. 5892 in absorption.
2022-410 (340- G29: Fig. 12- 1) : Very peculiar shape. Apparently superposed, galactic star near centre. 6563, 5007, 4959 and 4861 in emission.
2023-397 (340- G32: Fig. 12 -2) : (a) is strongest knot (center). (b) corresponds to weaker knot, 12" NW of (a). Strong emission in both: 6717, 6563, 5007, 4959, 4861 and 3727. Small object.
2024-447 (285-IG14: Fig. 12- 3) : Very large object. Diffuse extension to SW (and NE ?). Weak 5007 in emission. 4304, 4341, 5175 and 5892 in absorption.
2032-536 (186-IG66: Fig. 12- 4) : 6584, 6563, 5007, 4861 and 3727 in emission in both components.
2038-381 (341-IG06: Fig. 12- 5) : Diffuse lines. Velocity based on 3933, 3969, 4304 and 5892.
2041-411 (341-G?10: Fig. 12- 6) : No lines visible, i.e. not PN, as surmised in ESO/Uppsala List No. 6.
2045-394 (341-IG16 = IC 5056? : Fig. 12- 7) : Underexposed. Faint 3727 in emission. 3933, 3969, 4101 and 5892 in absorption, all rather diffuse. Rather large r.m.s.. Should perhaps be repeated.
2050-396 (341-G?20: Fig. 12- 8) : 3933 and 3969 at V = 0 km/s. Probably star + reflection nebula. To be verified.
2100-402 (341- G36: Fig. 12- 9) : Weak 6563 and 3727 in emission. Possibly 4861 in emission. 5175 in absorption.
2127-406 (343- G01: Fig. 12-10) : Strong, broad 4304. Velocity from 3933, 3969 and 5175. Ring around diffuse centre.
2131-410 (343- G08 = NGC 7087: Fig. 12-11): Slit was placed along major axis of this S-spiral. (a) is centre, (b) and (c) are areas 15" SW and 9" NE of center, respectively. 6717 and 6563 in emission in all three.
2131-409 (343- G09: Fig. 12-12) : Weak 6563 and 3727 in emission. 3933, 3969, 5175 and 5892 in absorption. No [O III].
2209-383 (344- G14 = IC 5175: Fig. 13- 1) : Companion to very large spiral galaxy, IC 5174 (cf. West and Barbier, 1981). Weak 6563 in emission. 3933, 3966, 4304 and 5175 in absorption.
2211-658 (108-IG21: Fig. 13- 2) : Strong emission: 6717, 6584, 6563, 5007, 4959 and 4861.
2259-694 (077-IG01 = IC 5279?: Fig. 13- 3) : 6584 and 6563 of moderate strength in emission. Rotation. Continuous, diffuse spectrum with weak absorption lines. Note diffuse extension to NW.
2304-280 (469-IG14: Fig. 13- 4) : Overexposed. Galactic star at centre. Velocity from 6563, 5007 and 4959 in emission, seen on either side of the continuum.
2323-547 (192- G01: Fig. 13- 5) : Underexposed because of clouds. No emission lines.
2329-560 (192-IG05: Fig. 13- 6) : Velocity based on 3933, 3969 and 4861 in absorption.
2354-649 (078- G10: Fig. 13- 7) : Bright centre. Rather strong emission lines: 6563, 5007, 4959, 4861 and 3727. I(4959)=I(4861). Weak absorption: 3969 and 4304. Very small, nearby object.

TABLE II. — *Comparison of radial velocities with other sources.*

Object	Catalogue III cz	σ	Other Source cz	σ	Source
0102-643	6036	30	5942	27	Cat. II
0203-554	5798	22	5981	38	Cat. II
0338-712 4	14594	27	14554	25	Cat. II
0608-340 a	787	30	743	12	Rev. S-A
			687	13	Sec. Ref. Cat.
0639-584	2653	30	2669	30	Cat. II
0640-584	2740	5:	2744	18	Cat. II
0652-648	10262	68	10190		Fairall (1980a)
0825-776	5341	9:	5320	36	Cat. II
0830-596A	6488	30	6330		Fairall (1980a)
0907-756	4602	53	4746	11	Cat. II
1108-488	2723	30	2793	40	Cat. II
1132-451 b	5130	20	4948	85	Cat. II
1200-439 a	6793	20:	6821	40	Cat. II
1200-439 b	6921	21	6931	80	Cat. II
1219-430 a	7076	30	7350	(200)	Fairall (1979)
1219-430 b	7115	20	7200	(200)	Fairall (1979)
1325-486	3079	123	3000	40	Martin (1976)
			2832	64	Sandage (1978)
			2950	43	Rev. S-A
1334-425	403	40	300	(200)	Fairall (1979)
1339-479	3195	53	3030	70	Martin (1976)
			3201	43	Sandage (1978)
			3110	73	Rev. S-A
1957-472 b	6359	42	6321	28	Cat. II

Sources : Cat. II (Bergvall *et al.*, 1978) ; Rev. S-A (Sandage and Tammann, 1981) ; Sec. Ref. Cat. (de Vaucouleurs *et al.*, 1976).

TABLE III. — *Photoelectric UBV data.*

IDENT.	ESO No.	R.A. (1950)	DECL.	COMP.	DP	V	(B-V)	(U-B)	LIST	NOTES
0117-414	296-IG11	01 17 43	-41 29.9		88	14.32	0.27	0.35	5	
0121-590	113-IG45	01 21 51	-59 04.0		4.0	14.96	-0.30	-1.36	5	1
					5.5	14.14	-0.00	-0.94		
					8.0	14.02	0.37	-0.86		
					11	13.68	0.20	-0.89		
					16	13.54	0.27	-0.90		
					22	13.44	0.31	-0.87		
					32	13.36	0.36	-0.84		
					44	13.39	0.28	-0.83		
					62	13.19	0.40	-0.81		
0127-425	244-IG30	01 27 41	-42 34.9		88	14.01	0.65	0.03	5	4
0244-695	053-IG13	02 44 14	-69 31.7		62	15.07	0.31	-0.10	4	4
0325-369	358-IG07	03 25 35	-36 55.6		62	14.72	0.70	0.40	6	1
0329-504	200-IG31 NGC 1356	03 29 11	-50 28.7	AB	62	13.29	0.79	0.22	3	2,3
				A	22	15.15	0.85	-0.12		
				B	32	14.13	0.72	0.13		
0344-350	358-G63	03 44 24	-35 05.8		88	12.52	0.75	-0.09	6	1
0346-368	358-G67	03 46 15	-36 51.2		44	14.40	0.45	-0.24	6	1
					16	15.33	0.39	-0.18		
0455-428	252-IG01	04 55 25	-42 52.4		88	14.25	0.28	-0.37	5	4
0501-749	033-IG09	05 01 37	-74 58.5		88	14.60	0.48	0.38	5	1
0547-477	205-IG03	05 47 08	-47 46.5		44	14.98	0.91	-0.35	5	1,4
0558-339	364-IG22 IC 2153	05 58 16	-33 55.2		88	13.87	0.44	-0.17	6	1
					32	14.40	0.35	-0.13		
0608-340	364-G37 NGC 2188	06 08 21	-34 05.7		88	12.45	0.40	-0.39	6	1
0611-450	254-IG37	06 11 06	-45 03.6	A	32	14.35	1.11	0.70	5	1
				B	32	14.35	1.09	0.10		
0622-629	087-IG14	06 22 36	-62 56.4		22	13.22	0.58	0.04	5	1
					16	13.27	0.60	0.04		
0711-734	035-IG01	07 11 44	-73 25.5		44	13.80	0.69	0.08	5	1
0806-615	124-G11	08 06 32	-61 34.4		44	14.43	0.97	0.11	4	1
0807-616	124-IG12	08 07 02	-61 37.2		44	15.97	0.01	-0.35	4	1
0816-717	060-IG03	08 16 48	-71 42.2		22	15.30	1.50	-1.31	5	1,4
1219-430	267-IG41	12 19 18	-43 03.4	A	44	14.02	0.66	0.01	4	1
				B	22	15.27	0.81	0.26		
1334-425	270-IG22 NGC 5237	13 34 40	-42 35.6		88	12.67	0.72	0.01	4	1
1347-488	221-IG10	13 47 48	-48 48.5		88	12.40	0.67	-0.07	4	4
1354-387	325-IG37	13 54 47	-38 47.9		32	14.92	1.05	0.53	4	4
1356-422	325-IG41	13 56 02	-42 15.9		32	15.59	0.38	-0.05	4	1
1408-398	326-IG06	14 08 05	-39 52.2		16	14.52	0.91	0.38	4	4
1639-773	043-IG04 IC 4608	16 39 37	-77 23.9		62	13.71	0.59	-0.15	4	4
					32	14.22	0.45	-0.24		
1642-725	043-IG06	16 42 14	-72 34.1		32	14.57	1.14	0.44	4	4
					22	14.72	1.14	0.41		
1827-633	103-IG26 NGC 6630	18 27 49	-63 19.7		44	13.97	0.72	0.03	4	1
					32	14.17	0.68	0.04		
1836-551	183-IG07	18 36 25	-55 07.2		32	14.45	0.30	-0.30	3	1
1918-605	141-IG57	19 18 59	-60 34.3		44	15.06	0.45	-0.20	3	1
1920-630	104-IG51	19 20 24	-63 04.0	A	22	14.70	1.09	0.50	3	6
				A	16	14.96	1.09	0.50		
				B	22	14.65	1.03	0.63		
1924-416	338-IG04	19 24 29	-41 40.6		32	13.65	0.27	-0.45	4	4
1957-472	284-IG08 NGC 6845	19 57 22	-47 12.5	A	88	13.20	0.64	-0.02	4	1,4,9
				B	22	14.16	1.09	0.51		
				C	22	15.66	0.92	0.52		
2011-620	143-IG16 IC 4974	20 11 08	-62 00.7	A	22	15.00	1.02	0.59	4	7
				B	22	15.24	1.11	0.69		
2012-444	284-IG41	20 12 50	-44 27.3		44	12.77	0.93	0.39	4	4
2013-710A	073-IG35 NGC 6876	20 13 06	-71 00.8		44	12.07	1.02	0.58	4	4
2013-466	284-IG45	20 13 16	-46 41.2		44	13.53	0.72	0.05	4	4
2013-710B	073-IG36 NGC 6877	20 13 23	-71 00.6		44	13.05	1.01	0.50	4	4
2023-552	186-IG45	20 23 43	-55 15.3		22	13.99	1.24	1.04	4	4
2126-602	145-IG07 IC 5110	21 26 58	-60 13.3		62	13.85	0.87	0.19	1	5
					32	14.40	0.88	0.19		
2147-614	145-IG21	21 47 33	-61 26.1	A	16	14.30	0.56	-0.08	1	8
				B	16	14.23	0.82	0.52		
2233-616	147-IG03	22 33 22	-61 39.6		32	14.80	0.92	0.45	1	5
					22	15.62	0.93	0.09		
2244-653	109-IG22 IC 5250	22 44 00	-65 19.3	A	22	12.78	0.99	0.51	4	4
				B	22	13.08	0.98	0.50		
2304-431	290-IG51	23 04 06	-43 09.7	A	22	14.37	1.00	0.44	3	4
				B	16	15.57	0.98	0.38		
				C	22	14.76	0.93	0.28		

Notes :

1 : Also in table I.
2 : Measurements made 20 minutes before sky became cloudy.
3 : 0329-504 : cf. figure 13-9.
4 : Spectroscopic observation in Catalogue No. II.
5 : Spectroscopic observation in Catalogue No. I.
6 : 1920-630 : cf. figure 13-10.
7 : 2011-620 : cf. figure 13-11.
8 : 2147-614 : cf. figure 13-12.
9 : Photometric observation in Catalogue No. II.

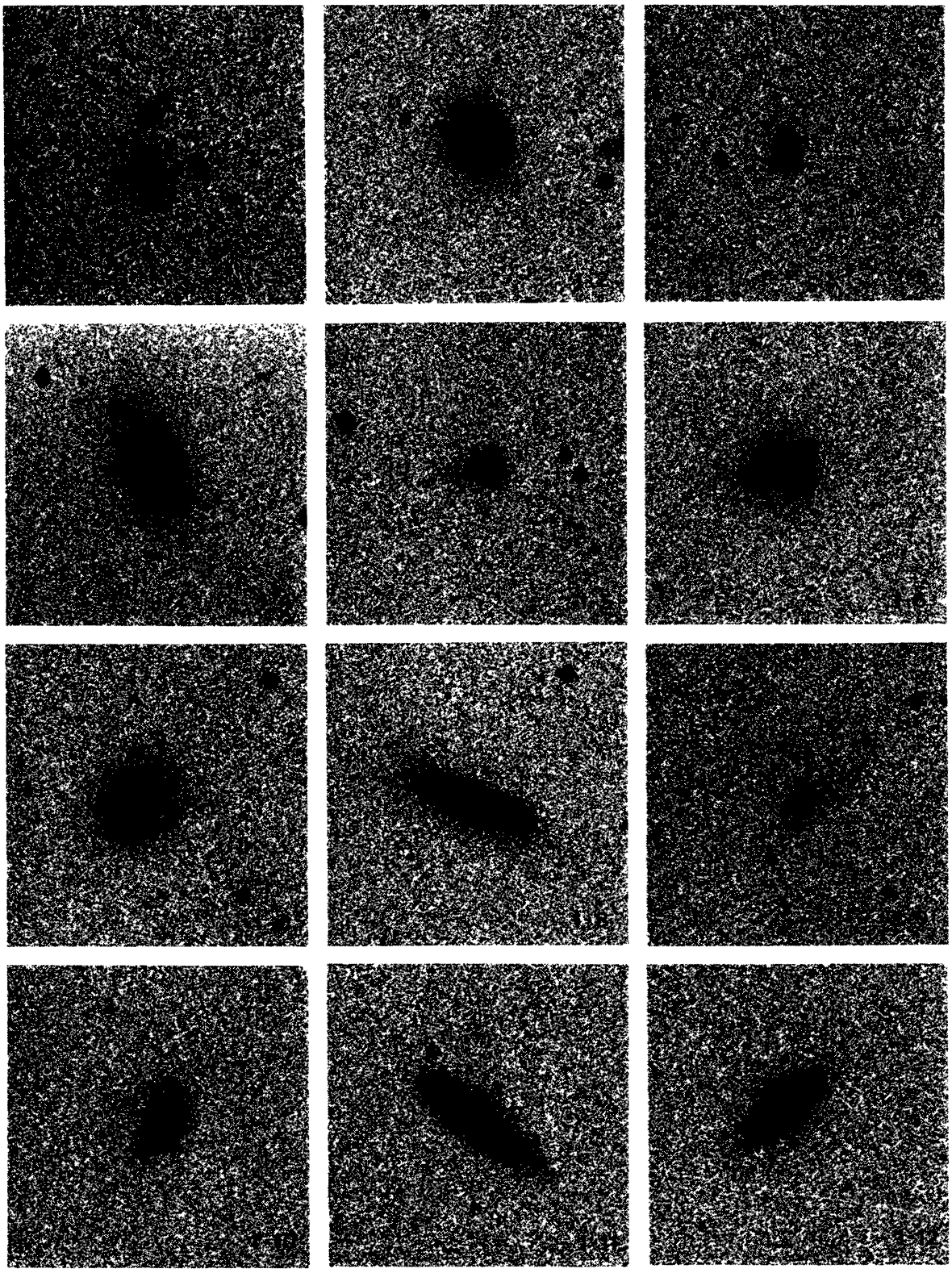

FIGURE 1. — Reproduction of objects in Catalogue III. The scale is indicated and is the same in all figures. North is up and East to the left. The objects are identified in table I (col. 15).

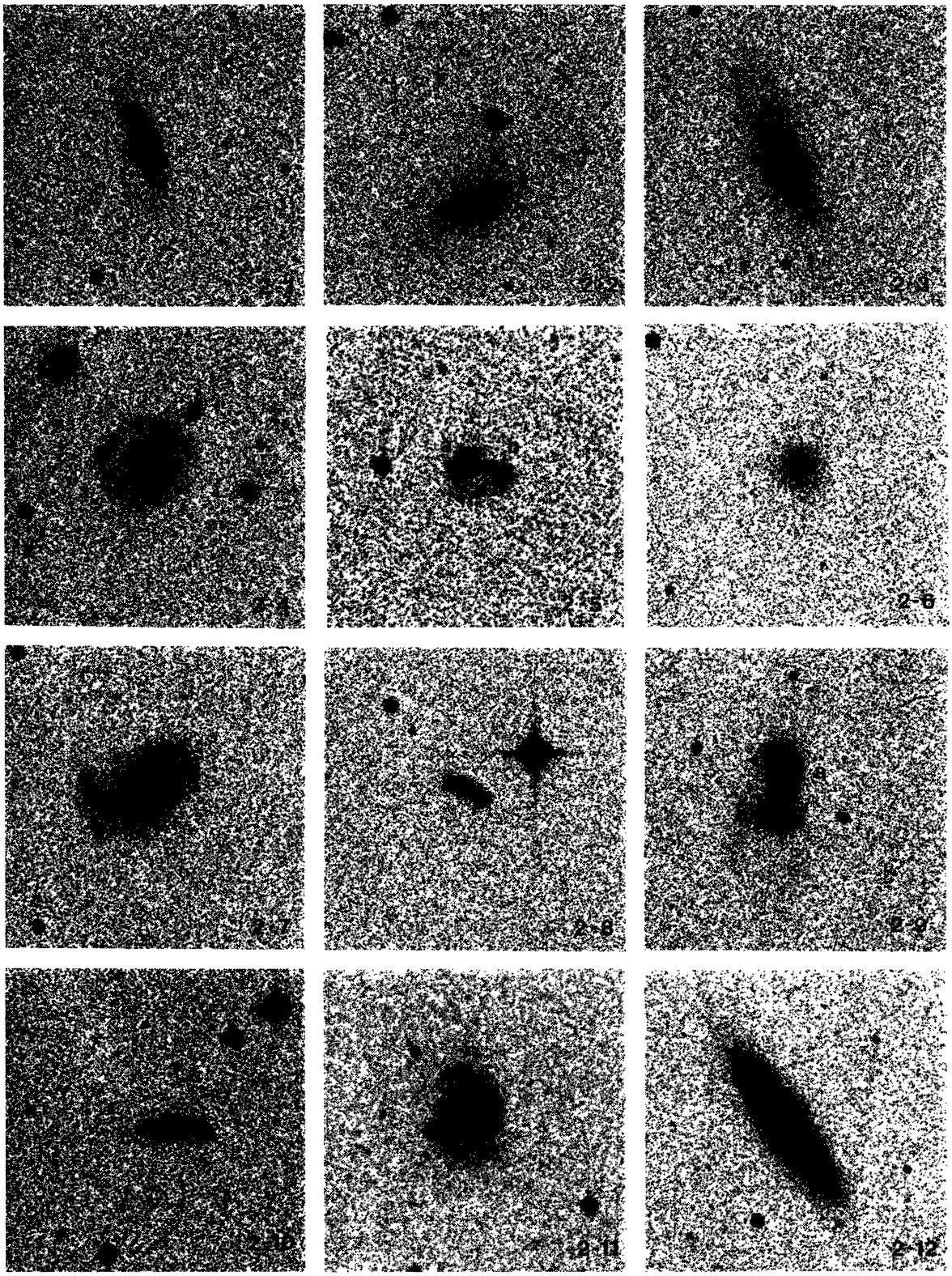

FIGURE 2. — Cf. figure 1.

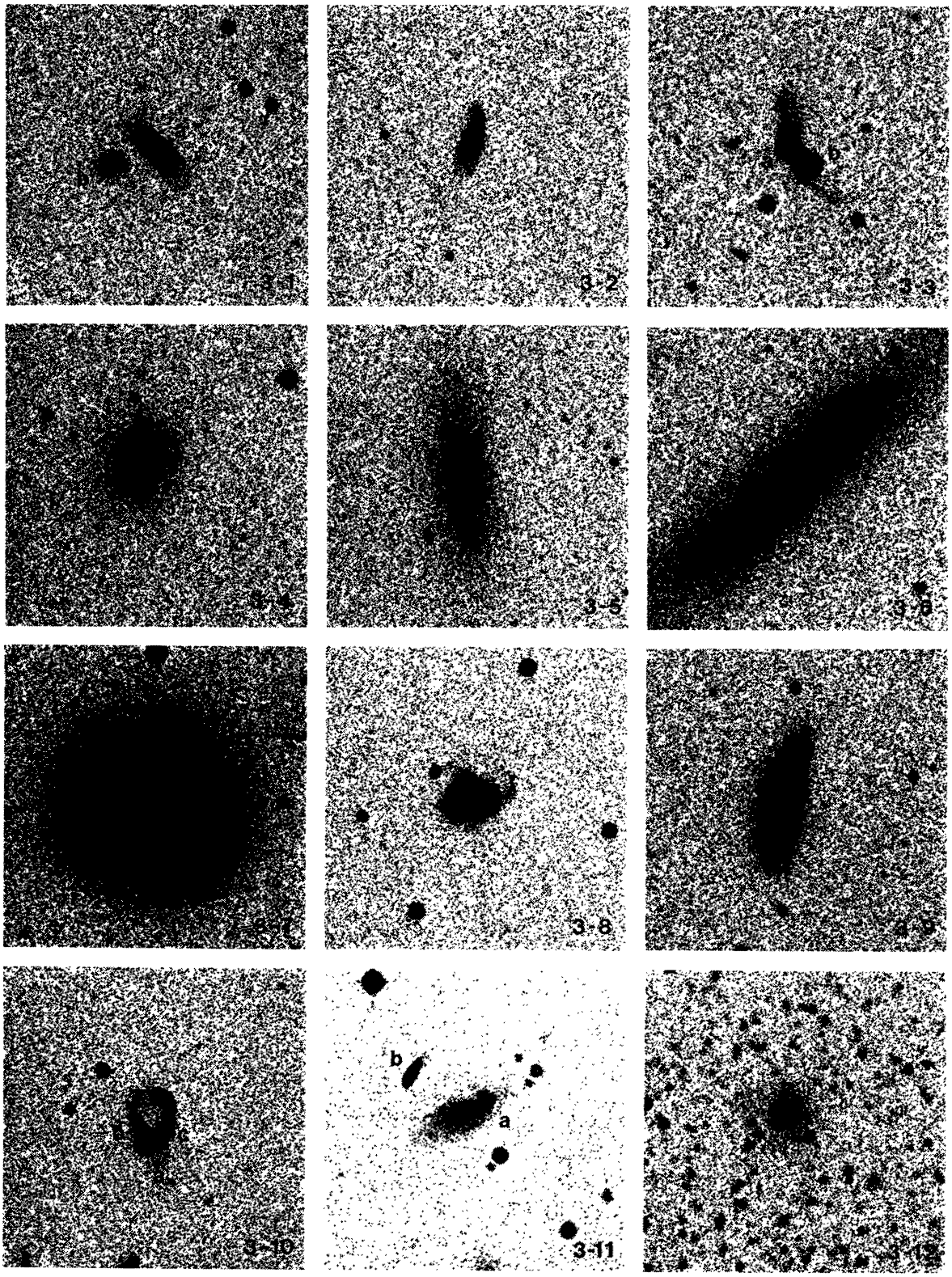

FIGURE 3. — Cf. figure 1.

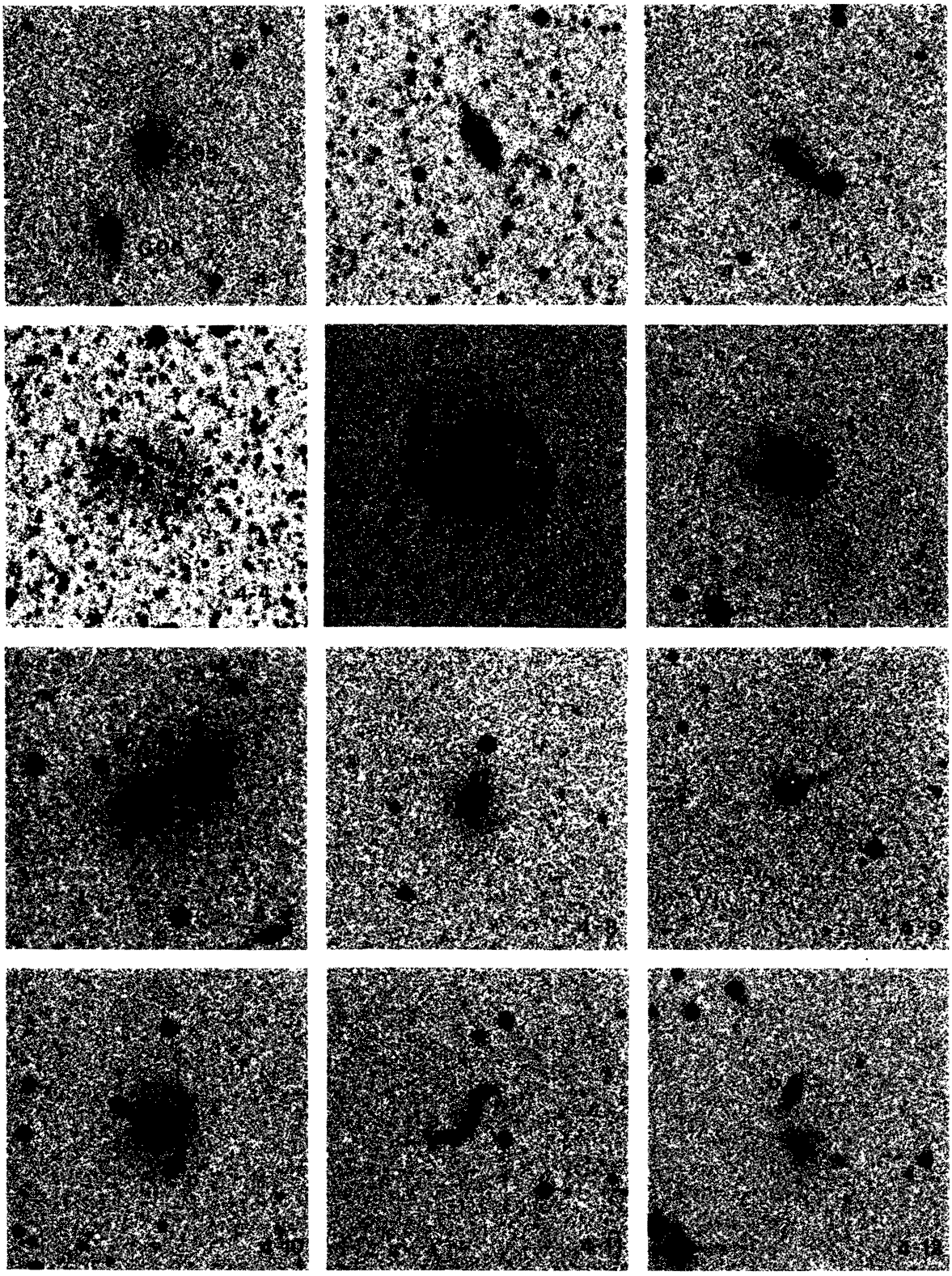

FIGURE 4. — Cf. figure 1.

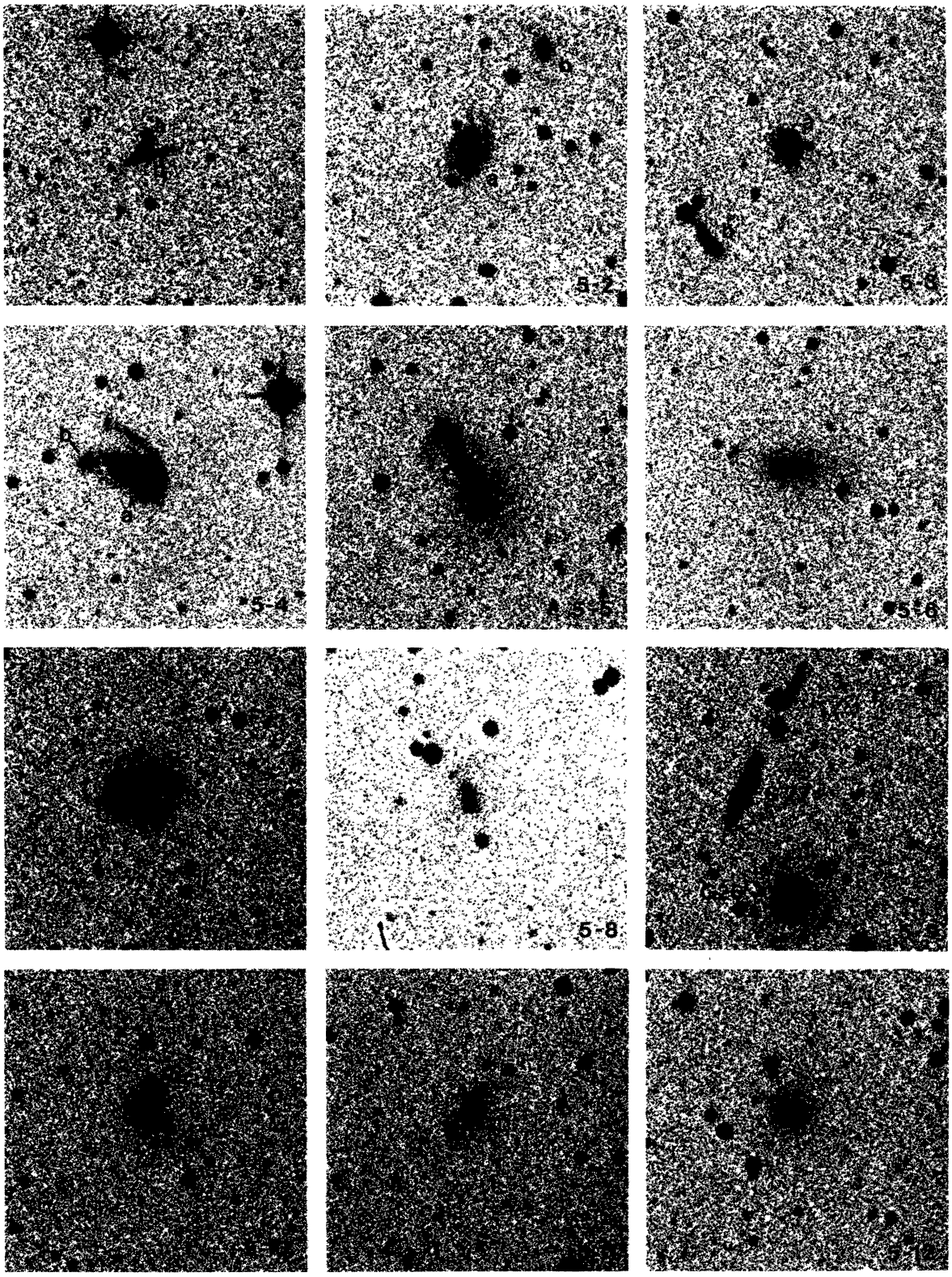

FIGURE 5. — Cf. figure 1.

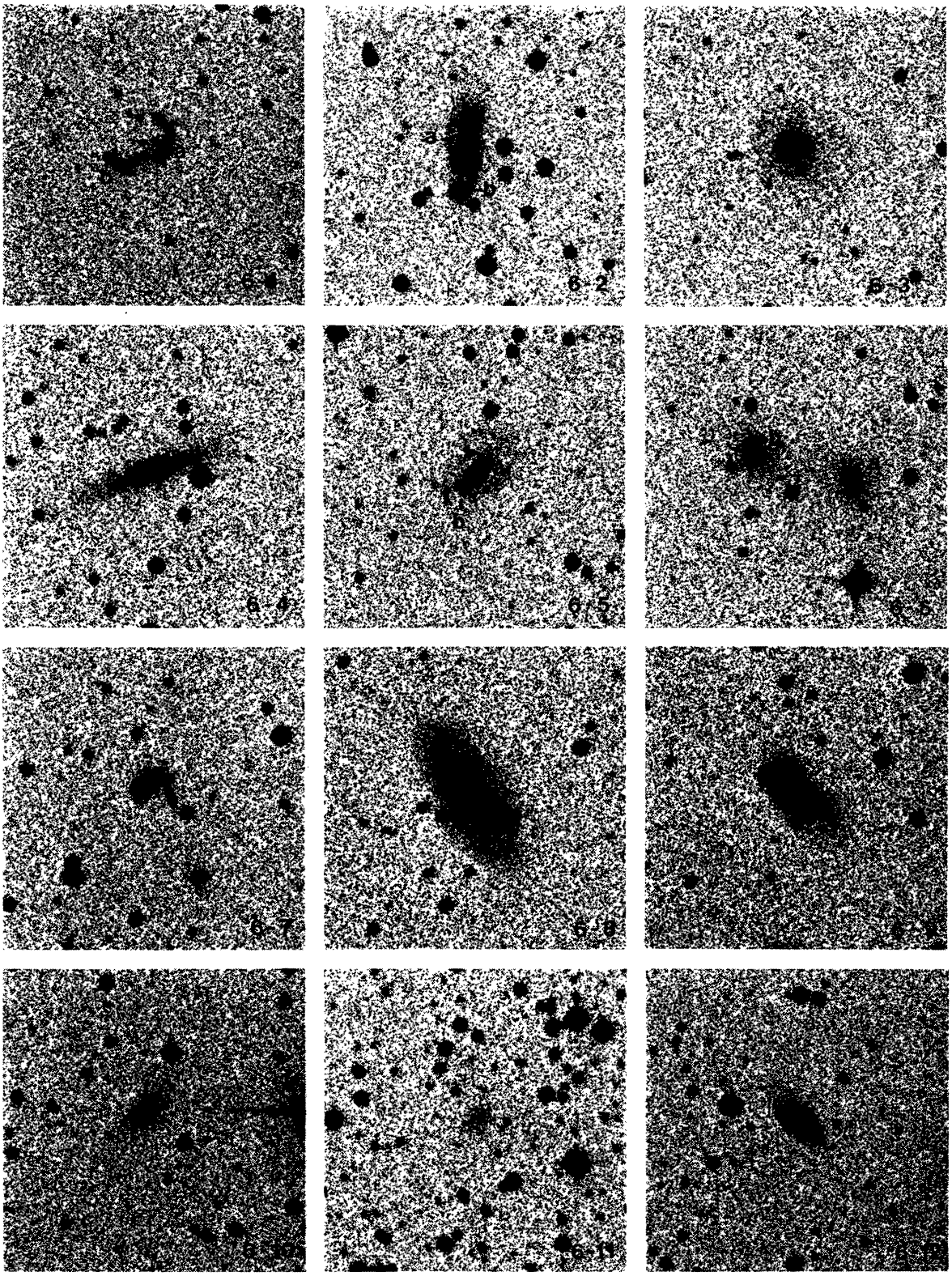

FIGURE 6. — Cf. figure 1.

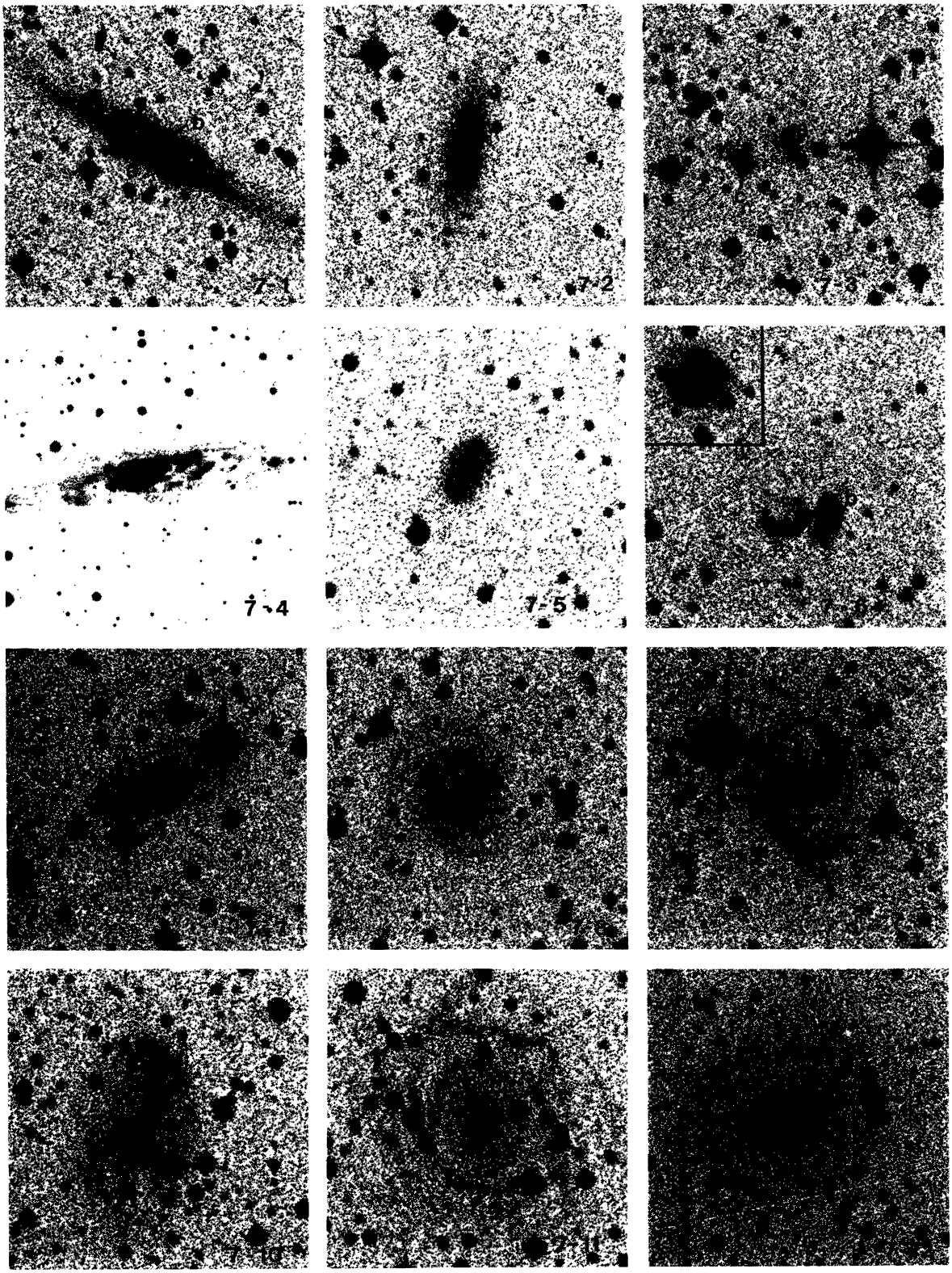

FIGURE 7. — Cf. figure 1.

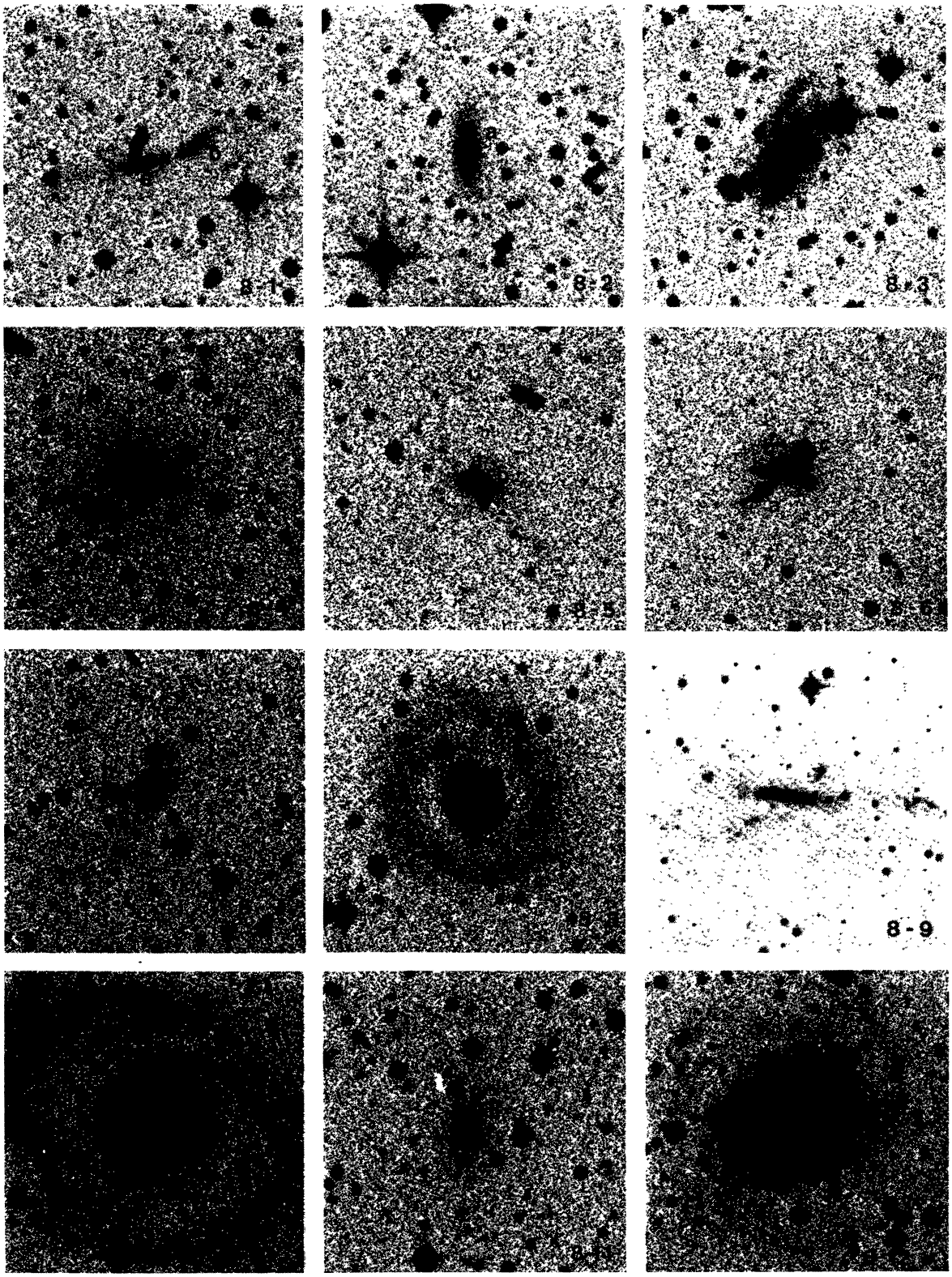

FIGURE 8. — Cf. figure 1.

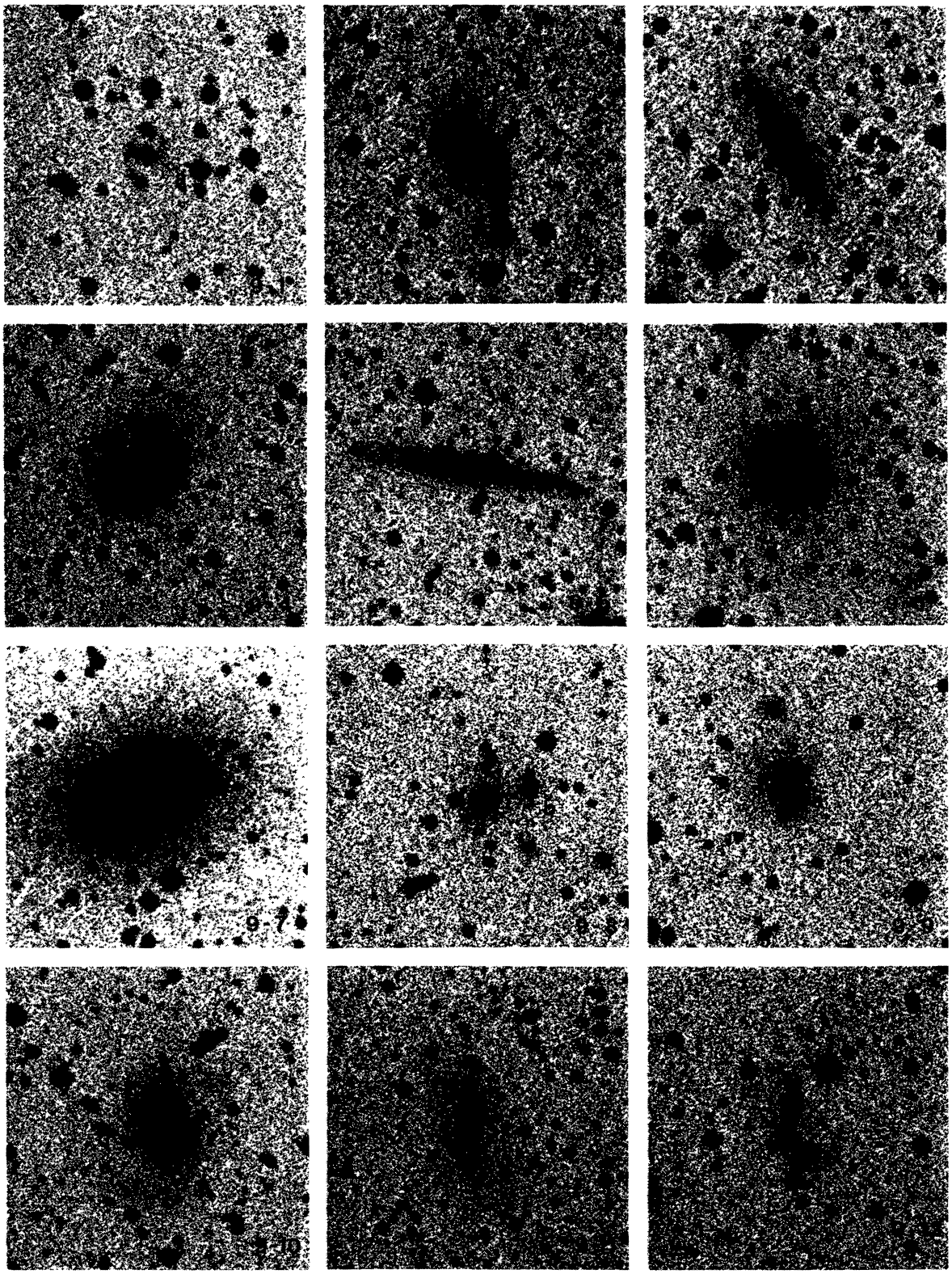

FIGURE 9. — Cf. figure 1.

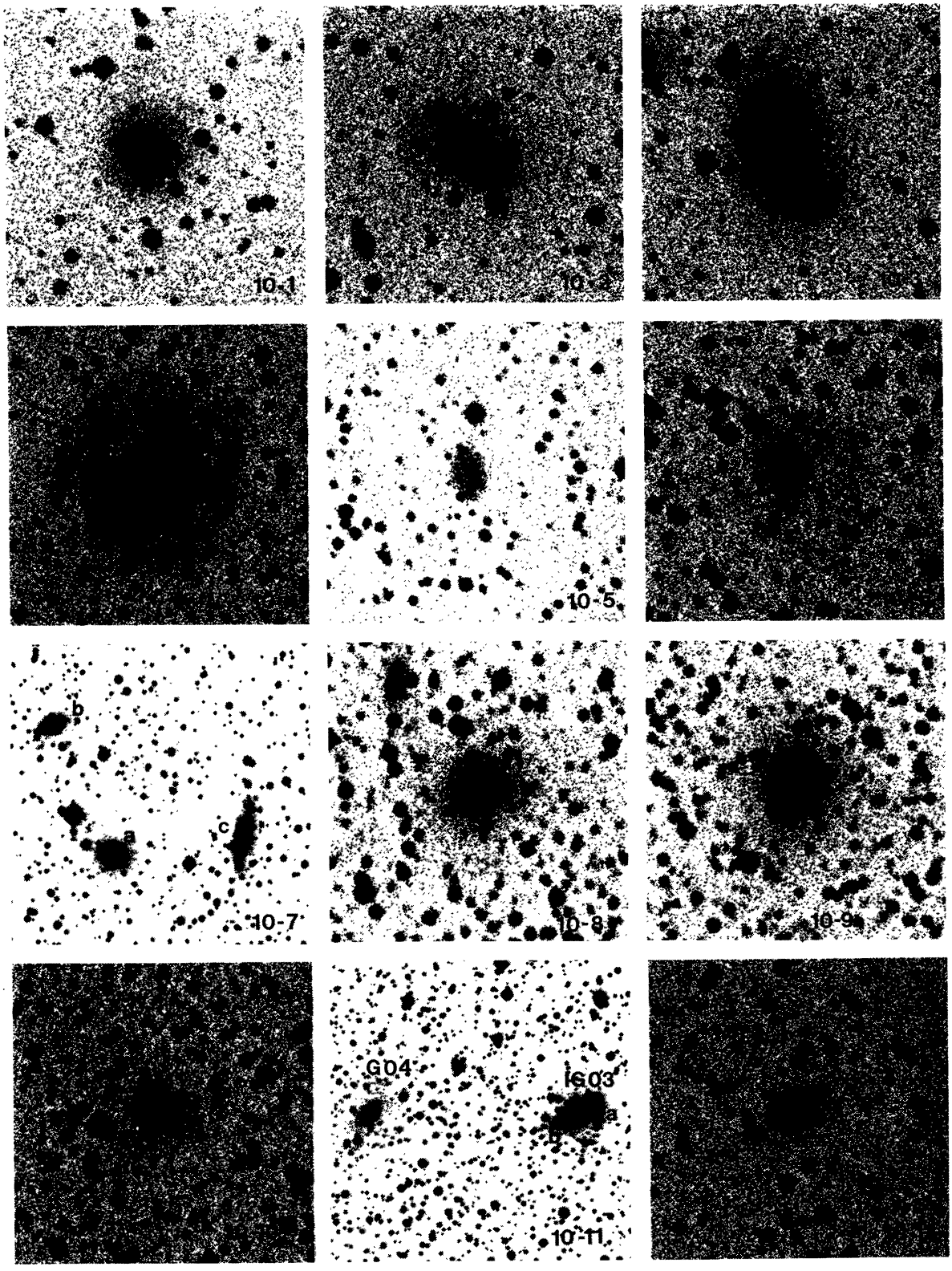

FIGURE 10. — Cf. figure 1.

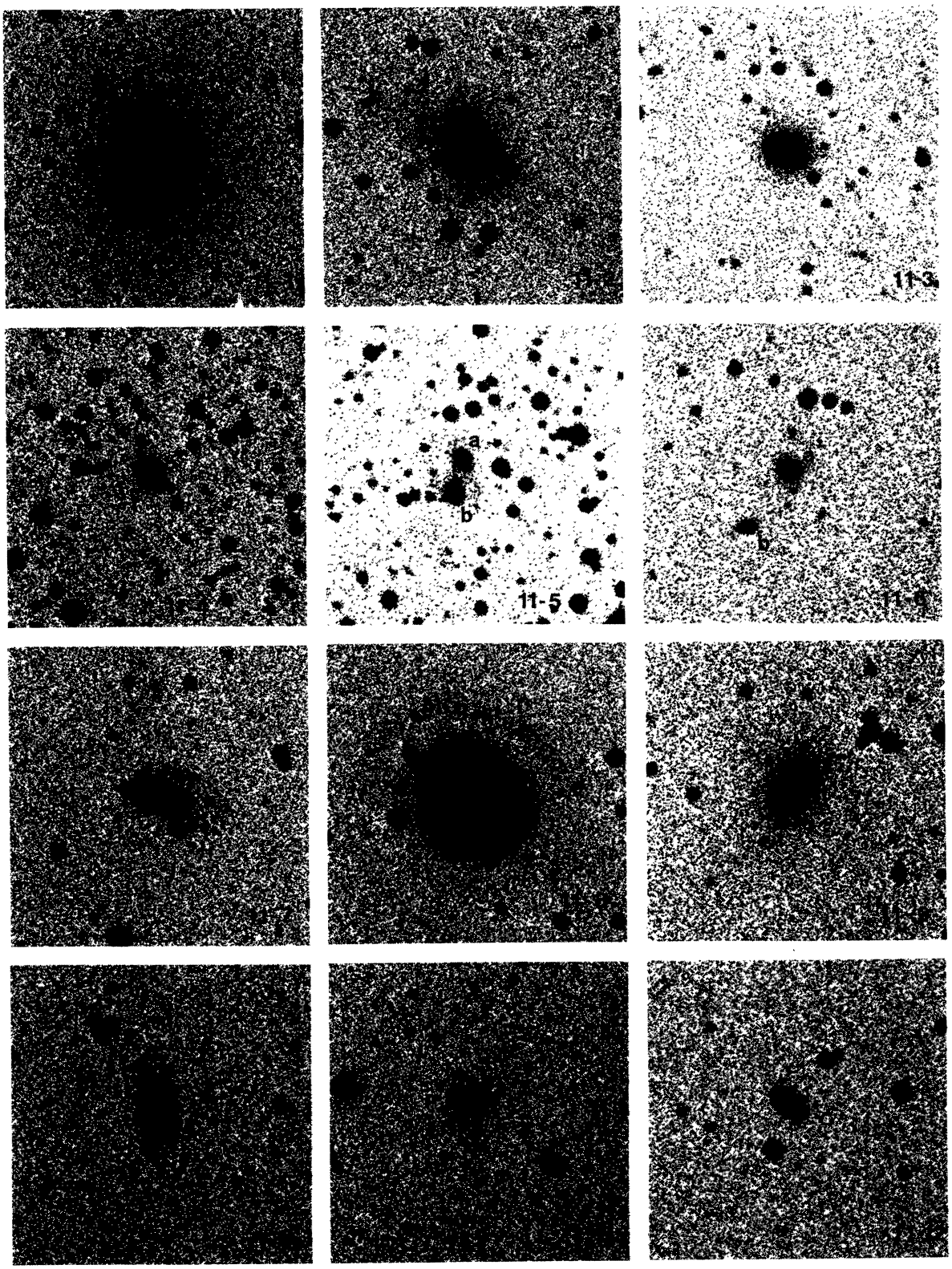

FIGURE 11. — Cf. figure 1.

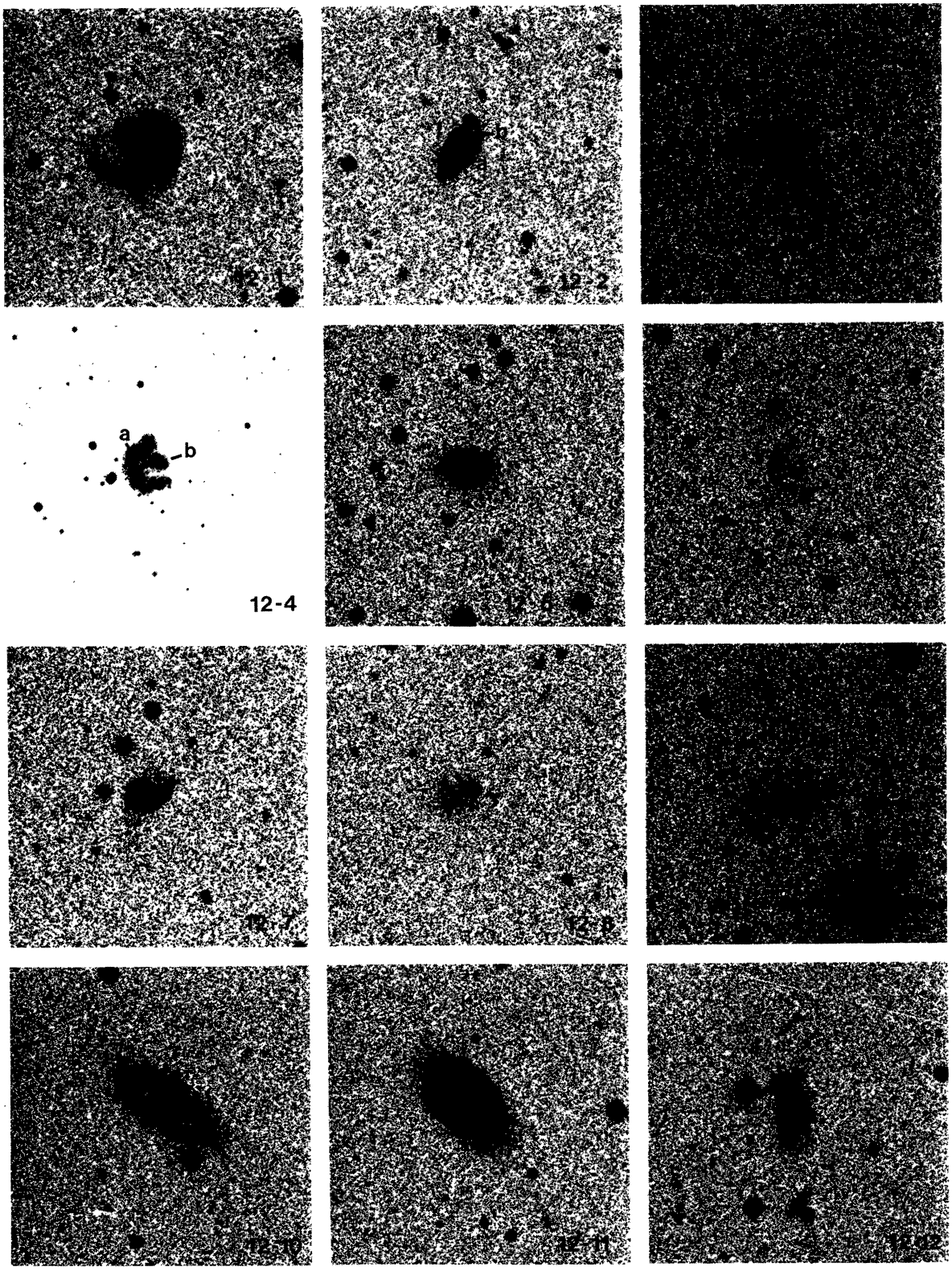

FIGURE 12. — Cf. figure 1.

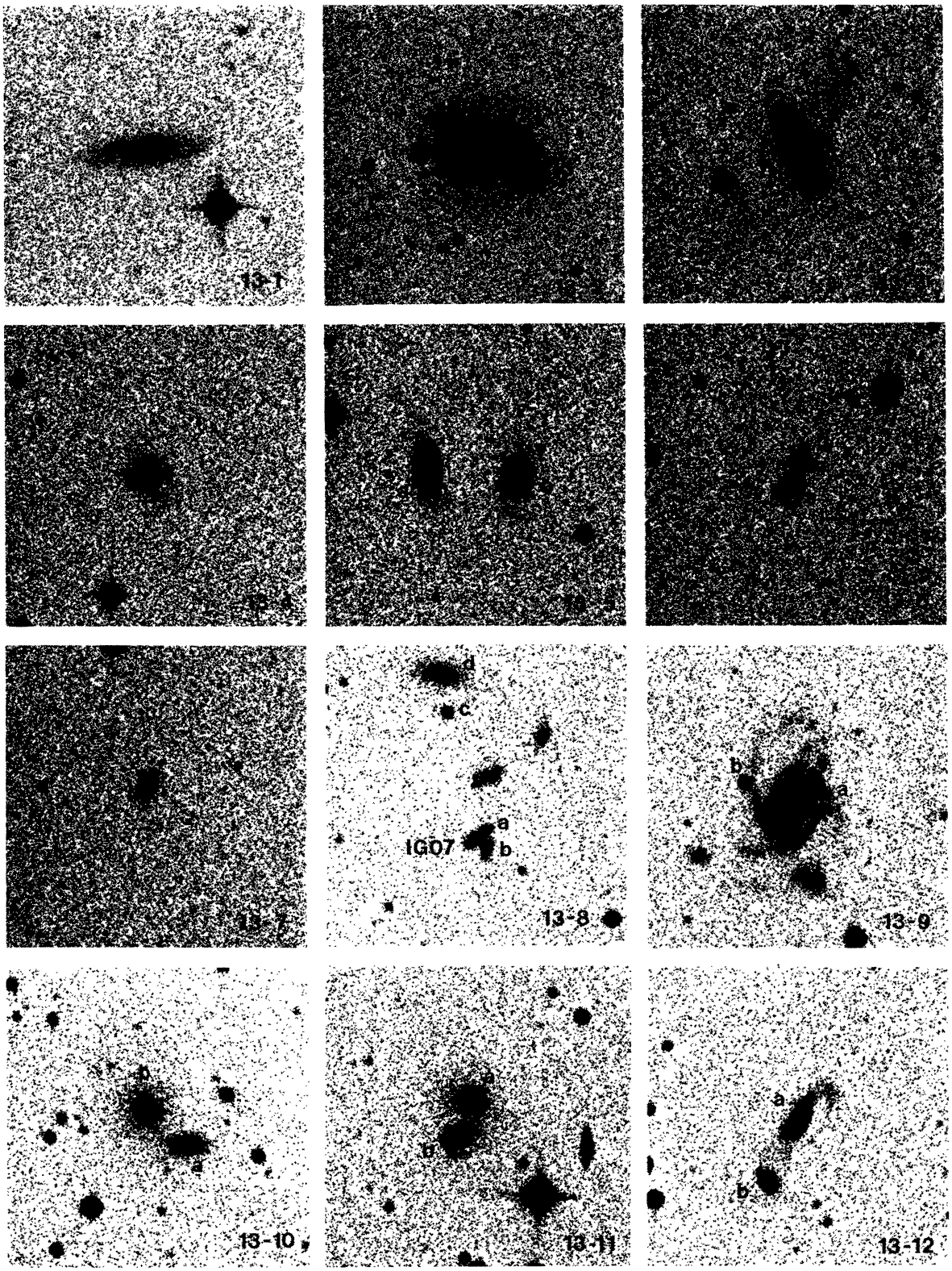

FIGURE 13. — Cf. figure 1. Further objects : 13-9 = 200-IG31 ; 13-10 = 104-IG51 ; 13-11 = 143-IG16 ; 13-12 = 145-IG21 (cf. Notes to table III).