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A 20 CENTIMETER VLA SURVEY OF ABELL CLUSTERS OF GALAXIES. III. IMAGES AND OPTICAL IDENTIFICATIONS

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ABSTRACT

We present radio contour maps, models, and optical identifications for 250 radio galaxies in Abell clusters of galaxies.

Subject headings: galaxies: active — galaxies: clustering — galaxies: jets — radio continuum: galaxies — surveys — techniques: interferometric

1. INTRODUCTION

This paper is the third in a series reporting VLA observations of radio sources in Abell clusters. In Paper I (Zhao, Burns, & Owen 1989) we reported observations and analysis of the properties of sources with Abell's distance class ≤3. In Paper II (Owen, White, & Burns 1992) we presented radio and optical data on 130 more distant radio galaxies in clusters. In this paper we report the observational results on 250 more radio galaxies in clusters which complete the bulk of the objects in the two samples described below. Radio contour maps and models are given to describe the radio data. Optical positions, magnitude estimates, and finding charts are presented to document the optical identifications.

These results are part of a larger data base we are constructing to study the properties of radio galaxies in Abell clusters (Abell 1958) within half a corrected Abell radius (Owen et al. 1982) of the cluster center. One sample consists of all such radio galaxies with integrated flux densities at 20 cm greater than 10 mJy with measured redshifts less than 0.09. About 330 clusters and about 330 radio galaxies are in our current list for this sample. A second sample consists of radio galaxies with flux densities greater than 200 mJy in any of the northern clusters. About 110 radio galaxies are in this sample at present. Both samples are evolving slowly with time as redshifts and better radio maps become available. The results presented in this paper make up part of the data base for both of these samples. Papers II and III contain the bulk of the radio imaging. This paper alone contains data for just over half of the radio galaxies.

The purpose of this paper is to document a portion of the observational results of this survey. Further observational results and analysis of the sample will be presented in future papers. Among the subjects we plan to study using these data sets are (1) the effect of environment on radio galaxies, (2) the evolution of radio galaxies in rich clusters, and (3) the importance of beaming in a complete sample of radio galaxies. We also hope these data will be of use in other studies of radio galaxies and rich clusters of galaxies.

2. OBSERVATIONS, REDUCTIONS, AND RESULTS

The observations reported in this paper were made between 1983 and 1991 using the VLA at 20 cm. The B and C arrays were used (Thompson 1980). The observations were tied to the flux density scale of Baars et al. (1977) using either 3C 48 or 3C 286 as the primary flux density calibrator. Bandwidths of 50 or 25 MHz were used for all the observations. The data calibration, mapping, and optical identifications were carried out as described in Paper II. Typically each image has an integration time of 5 to 10 minutes and a noise of 0.1 to 0.3 mJy beam^{-1}.

In Table 1 we summarize the results for the objects reported in this paper. In column (1) we give the Abell cluster number. Columns (2) and (3) contain the 1950.0 position of the optical galaxy identified with the radio source. In column (4) we give our estimate of the *R*-magnitude of the galaxy. See Paper II for a description of the magnitude scale. Column (5) contains the total flux density in mJy of the associated radio source. If column (5) is blank the galaxy listed is an alternate identification for the last radio source with a flux density listed about it. In column (6) we give the clean beam of the radio image used in our analysis: major axis, minor axis in arcsec, and position angle. Column (7) contains the number of a reference of a previously published map which adds to our knowledge of this source, usually a higher resolution map. The reference are given in the footnotes to the table.

All of the radio sources listed in Table 1 either have an image in Figure 2 below or a model in Table 2.

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TABLE 1

RADIO GALAXY PARAMETERS

Abell Clu	R.A.(1950.0)	Dec. (1950)	Gal Mag.	Flux Den	Clean Beam	Ref
0014-A	00 12 46.63	-24 08 17.6	15.3	17	22.06 11.08 pa=170.09	
-B	00 12 46.73	-24 07 19.0	17.5			
-C	00 12 20.59	-23 56 04.2	15.4	77		
0027-A	00 22 16.63	-20 59 17.4	15.5	378	19.57 10.86 pa=169.36	
-B	00 22 16.03	-21 00 32.1	14.2			
-C	00 22 17.05	-21 00 36.0	16.5			
-D	00 22 19.01	-20 59 04.6	17.5			
-E	00 22 20.99	-20 59 46.9	14.2	51		
-F	00 22 20.38	-20 58 16.4	17.5			
0044-A	00 27 11.45	11 47 32.2	15.3	12	11.83 10.95 pa=144.47	
-B	00 27 11.77	11 46 27.0	16.1	90		
-C	00 27 09.09	11 45 58.1	16.2			
-D	00 27 15.92	11 46 29.9	17.0			
0055-A	00 31 30.90	06 04 04.1	14.2	250	13.34 11.63 pa=163.26	
-B	00 31 30.01	06 03 58.0	14.7			
0069-A	00 35 17.19	18 04 23.9	15.2	209	11.60 10.39 pa=151.08	
-B	00 35 17.54	18 04 25.8	15.2			
-C	00 35 17.08	18 04 45.4	15.1			
-D	00 35 17.73	18 04 38.2	17.0			
-E	00 35 14.62	18 04 26.6	17.5			
0072	00 35 08.20	45 19 46.7	14.2	48	18.06 12.96 pa=88.32	
0074-A	00 36 38.96	-22 36 30.2	14.5	129	24.02 13.99 pa=3.34	
-B	00 36 31.58	-22 36 17.5	14.5	13		
-C	00 36 29.95	-22 36 19.4	14.7			
-D	00 36 29.94	-22 36 32.2	17.5			
-E	00 36 30.48	-22 36 49.1	18.0			
-F	00 36 30.69	-22 37 01.3	18.0			
0076	00 37 05.60	06 13 01.9	15.3	100	12.35 11.16 pa=147.49	4
0077	00 37 48.17	29 16 53.6	14.2	12	14.53 13.29 pa=128.79	
0102-A	00 46 05.86	01 09 29.6	14.4	68	17.84 16.78 pa=61.46	
-B	00 46 04.94	01 09 50.4	13.9			
-D	00 45 57.64	01 09 27.3	14.7			
-D	00 45 22.17	01 13 36.2	17.0	10		
0114-A	00 50 58.05	-22 00 30.3	14.5	97	23.34 13.87 pa=1.17	
-B	00 51 12.62	-22 00 15.7	15.7	29		
0115-A*	00 53 09.09	26 08 21.9	16.0	1327	14.48 13.22 pa=128.24	2,4
-B*	00 53 20.71	26 11 14.1	16.5	250		3,4
0126-A	00 57 08.49	-14 35 37.4	15.3	12	19.03 13.23 pa=1.02	
-B	00 57 24.30	-14 30 50.8	15.0	15		
0133	01 00 15.29	-22 09 03.5	13.0	160	23.40 13.93 pa=0.15	
0152	01 07 24.64	13 42 44.8	13.8	206	12.74 11.09 pa=165.97	
0157*	01 08 36.06	-14 38 29.0	14.7	382	19.18 13.12 pa=179.78	
0168	01 12 42.09	-00 03 03.4	13.8	49	15.83 15.37 pa=143.28	
0193	01 22 30.47	08 26 21.7	13.0	51	15.93 15.37 pa=122.39	
0195	01 24 12.28	18 57 17.9	13.2	1345	11.17 10.38 pa=143.96	
0224-A	01 35 48.48	-07 10 35.0	16.0	184	15.61 11.84 pa=165.29	
-B	01 35 47.75	-07 09 59.6	17.5			
-C	01 35 45.49	-07 11 02.2	16.0	95		
-D	01 35 46.59	-07 11 01.2	16.0			
-E	01 35 45.72	-07 11 37.4	17.5			
-F	01 35 46.46	-07 12 00.0	17.5			
-G	01 35 48.00	-07 12 59.0	17.0			
0276	01 54 03.15	41 05 51.1	13.8	42	19.94 12.79 pa=88.31	
0281	01 54 36.54	-06 07 46.7	14.7	10	16.76 12.73 pa=172.6	
0286	01 56 05.48	-02 00 03.7	16.5	23	16.62 14.55 pa=159.83	
0292	01 59 33.76	18 49 34.7	13.5	22	14.23 13.93 pa=133.09	
0311	02 06 12.46	19 37 47.3	16.0	20	14.45 13.90 pa=131.68	
0367	02 34 18.72	-19 34 54.0	15.3	47	20.88 11.10 pa=177.96	
0399	02 55 18.58	12 39 14.4	15.3	33	11.69 10.95 pa=143.51	
0401-A	02 55 47.14	13 22 22.9	15.2	419	11.66 10.85 pa=144.04	
-B	02 56 30.01	13 15 16.4	15.0	190		
0415	03 04 29.56	-12 17 55.0	14.0	489	18.97 13.44 pa=171.52	
0419	03 06 03.89	-23 45 14.1	14.3	108	19.84 14.13 pa=23.90	
0423-A	03 08 54.08	-12 19 00.0	14.4	19	16.17 11.22 pa=167.72	
-B	03 09 11.12	-12 23 09.8	14.7	45		
0436	03 23 53.16	09 00 38.3	14.7	213	14.82 14.20 pa=125.50	
0465-A	03 47 55.48	06 11 44.2	15.7	63	12.79 11.80 pa=146.81	
-B	03 47 54.51	06 11 17.0	17.0			
-C	03 47 51.69	06 11 55.4	14.5			
-D	03 48 15.75	06 09 49.6	15.0	41		
-E	03 48 20.68	06 09 27.4	16.5			
-F	03 48 15.82	06 10 07.0	17.0			
-G	03 48 12.09	06 09 55.5	17.5			
-H	03 48 12.10	06 09 43.9	17.5			
0478-A	04 10 40.49	10 20 19.4	14.8	31	12.28 11.27 pa=145.27	
-B	04 10 53.60	10 20 33.9	15.4	46		
-C	04 10 14.16	10 27 38.6	15.4	35		
0484-A	04 13 46.13	-07 48 54.6	15.3	29	15.08 11.33 pa=162.45	
-B	04 13 45.16	-07 48 54.6	18.0			
-C	04 13 44.86	-07 48 48.8	17.0			
-D	04 14 48.84	-08 00 05.6	16.5	19		
0500-A	04 36 32.06	-22 25 26.2	15.7	21	17.71 14.18 pa=31.06	
-B	04 36 06.22	-22 08 47.5	16.5	13		
-C	04 37 04.22	-21 59 40.7	17.0	12		
0509	04 45 16.92	02 19 52.1	16.2	20	13.78 11.90 pa=153.43	
0514-A	04 45 52.95	-20 31 52.2	14.5	95	20.10 10.83 pa=173.01	4
-B	04 45 52.08	-20 32 36.6	17.5			
-C	04 45 50.08	-20 33 26.6	17.0			
-D	04 46 00.42	-20 30 10.8	14.7	119		
-E	04 46 20.67	-20 37 26.0	14.5	502		

TABLE 1—*Continued*

Abell Clu	R.A.(1950.0)	Dec. (1950)	Gal Mag.	Flux Den	Clean Beam	Ref
-F	04 45 02.79	-20 19 19.8	17.0	270		
0519-A	04 51 15.14	00 35 52.4	14.7	307	12.87 11.94 pa=145.04	4
-B	04 51 15.41	00 36 01.8	16.2			
0531-A	04 58 50.31	-03 36 57.7	15.3	309	14.62 12.36 pa=156.94	4
-B	04 58 51.96	-03 36 37.4	16.2			
-C	04 58 48.08	-03 36 44.8	15.7			
0564	06 54 41.25	70 05 58.7	16.5	60	21.09 10.81 pa=78.93	
0578-A	07 19 52.64	67 05 02.8	14.1	618	21.77 11.13 pa=84.78	
-B	07 19 55.16	67 05 02.5	15.2			
-C	07 20 01.22	67 02 25.4	14.0	84		
0582	07 24 31.26	42 01 14.7	14.5	23	13.23 13.01 pa=138.63	
0584	07 25 34.68	26 44 14.2	17.0	498	12.35 12.09 pa=41.07	
0608	07 57 30.43	64 01 23.7	16.5	966	22.44 11.40 pa=89.83	
0618	08 03 59.58	67 37 18.0	16.5	480	21.87 10.74 pa=84.81	
0628-A	08 06 54.73	35 25 23.3	14.0	11	14.70 14.45 pa=132.68	
-B	08 06 11.61	35 27 55.7	15.2	26		
0629-A	08 10 10.08	66 35 58.3	15.7	266	21.70 10.81 pa=85.63	
-B	08 10 25.27	66 34 28.8	16.2	125		
0680-A	08 31 40.47	37 07 04.4	18.0	15	11.04 9.82 pa=148.38	
-B	08 32 26.21	37 02 04.4	16.5	21		
0693	08 37 14.83	01 15 06.7	18.0	547	16.41 14.41 pa=152.75	
0695-A	08 38 06.74	32 35 42.2	13.5	608	15.13 13.26 pa=62.34	5,6
-B	08 38 07.34	32 35 31.3	15.2			
0725	08 57 04.39	62 49 05.6	15.0	199	23.05 11.41 pa=95.09	
0731*	08 54 40.93	-03 28 04.5	17.0	1160	16.01 13.37 pa=163.52	
0739	09 01 10.05	47 27 38.9	16.5	300	13.19 11.22 pa=11.96	7,8
0756	09 08 53.49	48 43 05.7	15.5	194	12.77 11.43 pa=25.37	
0763-B*	09 09 48.50	16 12 23.0	15.1	183	15.44 14.66 pa=109.17	
0796-A	09 24 50.89	60 38 27.6	16.2	281	13.65 10.99 pa=19.73	
-B	09 24 49.84	60 38 22.2	16.5			
0834-A	09 36 43.60	66 41 24.2	17.0	18	14.78 11.57 pa=171.49	
-B	09 36 42.40	66 41 24.2	17.0			
0841-A	09 36 05.16	-04 06 33.4	13.9	507	15.71 13.92 pa=144.72	
-B	09 36 02.28	-04 05 59.8	14.2			
-C	09 35 56.61	-04 08 03.3	15.3			
-D	09 35 53.80	-04 08 27.0	15.3			
0858	09 40 46.36	06 00 13.3	14.8	33	12.09 10.87 pa=147.72	
0869-A	09 43 38.42	02 36 39.6	15.4	208	15.19 14.04 pa=146.94	
-B	09 43 38.14	02 36 13.0	18.0			
-C	09 43 36.59	02 36 00.1	15.4			
-D	09 43 36.97	02 36 31.8	16.5			
-E	09 43 35.96	02 36 13.6	15.4			
-F	09 43 36.80	02 36 11.9	15.4			
0912	09 59 19.23	00 06 58.7	14.1	28	14.84 14.47 pa=140.67	4
0930-A	10 04 53.80	-05 26 47.7	15.3	13	15.10 13.26 pa=148.80	
-B	10 05 02.71	-05 13 34.4	16.0	11	15.10 13.26 pa=148.80	
0945	10 12 14.33	69 14 47.7	16.5	421	12.73 10.95 pa=31.50	
0950	10 11 26.68	50 00 27.6	17.0	394	14.91 13.93 pa=50.92	
0963-A	10 14 16.63	39 16 21.8	18.0	1250	14.73 14.50 pa=46.71	
-B	10 14 16.23	39 16 31.4	17.0			
-C	10 14 16.28	39 16 12.8	16.5			
1020-A	10 24 21.28	10 37 31.2	16.2	14	15.48 15.30 pa=132.67	
-B	10 25 19.09	10 49 08.8	15.7	112		
1024-A	10 25 47.94	04 00 52.1	14.2	272	14.87 13.78 pa=18	
-B	10 25 50.62	04 00 08.9	15.0	7		
1030	10 28 09.91	31 18 20.8	16.5	254	15.05 13.52 pa=64.89	
1060-A	10 34 07.86	-27 08 01.8	13.8	11	19.01 12.83 pa=154.83	
-B	10 34 14.35	-27 15 30.0	10.0	55		
-C	10 34 41.36	-27 18 18.5	10.0	42		
-D	10 34 51.56	-27 25 25.9	11.0	25		
1064	10 36 02.32	01 33 26.2	14.7	269	15.03 13.63 pa=16.41	
1142-A	10 57 30.49	10 59 09.9	15.4	17	12.08 11.00 pa=150.11	4
-B	10 58 20.32	10 46 27.6	12.0	24		
1180-A	11 06 46.96	63 18 07.3	16.5	25	12.67 10.24 pa=26.12	
-B	11 08 18.08	63 18 07.3	17.5	24		
-C	11 08 20.15	63 18 25.8	17.5			
1190-A	11 08 53.46	41 06 41.5	13.9	771	11.81 9.95 pa=156.56	7
-B	11 08 54.20	41 03 25.7	14.5	116		
-C	11 08 57.39	41 05 34.8	13.4	23		
1213-A	11 13 41.67	29 31 31.3	13.2	72	11.51 10.51 pa=148.54	
-B	11 13 47.43	29 33 32.4	13.8	22		
-C	11 13 53.65	29 31 39.9	13.8	749		
-D	11 13 54.06	29 31 21.0	13.8			
1234-A	11 19 51.78	21 40 49.1	15.8	540	14.55 13.81 pa=62.28	
-B	11 19 48.56	21 41 38.5	15.5			
-C	11 19 48.91	21 40 33.9	17.0			
-D	11 19 49.28	21 40 59.1	16.0			
-E	11 19 57.48	21 39 58.6	17.0	2.5		
-F	11 19 58.84	21 41 45.9	16.0	30		
1254	11 21 29.88	71 18 19.6	14.7	73	10.52 10.03 pa=4.27	
1262	11 24 09.83	10 59 34.0	15.7	286	14.22 13.36 pa=22.96	
1275	11 27 15.94	37 05 51.3	17.0	31	11.81 10.01 pa=160.14	
1334	11 36 30.52	-04 02 24.2	14.4	61	15.95 13.04 pa=178.02	
1356	11 39 42.65	10 34 09.7	14.5	126	11.80 10.70 pa=147.15	
1361	11 41 00.45	46 37 59.6	14.1	814	16.73 13.40 pa=63.35	
1363-A	11 40 38.01	44 05 22.9	17.0	10	16.71 13.21 pa=66.13	
-B	11 40 37.95	44 05 14.4	17.0			
1367-A	11 39 48.77	20 23 47.4	13.1	19	12.04 10.68 pa=156.14	
-B	11 41 13.24	20 14 48.9	12.0	93		
-C	11 41 26.57	20 13 38.3	10.0	21		

TABLE 1—*Continued*

Abell Clu	R.A.(1950.0)	Dec. (1950)	Gal Mag.	Flux Den	Clean Beam	Ref
1400	11 48 45.21	55 25 43.8	17.5	36	11.64 10.93 pa=37.89	
1423	11 54 42.33	33 53 08.3	17.0	29	12.94 10.03 pa=176.97	
1425	11 55 45.90	26 37 53.9	16.5	880	12.78 12.42 pa=37.50	
1456	12 00 48.24	04 31 00.7	18.0	1114	15.96 14.01 pa=0.06	
1457	12 02 04.21	52 45 23.4	17.5	287	12.74 11.45 pa=149.05	
1459	12 01 32.65	02 41 23.5	14.7	244	14.84 13.72 pa=18.66	
1461	12 03 37.11	42 47 21.6	16.5	16	13.05 10.72 pa=5.58	
1462	12 02 13.20	15 18 04.6	14.7	614	13.47 12.98 pa=31.39	
1474-A	12 05 34.59	15 20 02.4	13.8	10	13.18 12.52 pa=5.28	
-B	12 05 39.80	15 06 05.5	17.0	58		
1484	12 07 53.75	72 16 39.6	15.0	256	18.55 16.03 pa=50.25	
1526	12 19 34.29	14 01 32.5	15.3	41	13.70 11.42 pa=166.90	
1541	12 24 45.82	09 07 12.0	15.3	48	14.92 12.34 pa=160.53	
1544	12 25 33.20	63 39 37.8	15.5	210	17.27 13.90 pa=56.94	
1559	12 31 03.88	67 24 17.2	14.2	879	18.11 14.07 pa=57.06	1
1562	12 32 04.97	41 26 05.9	16.5	689	12.97 11.60 PA=159.80	
1569-A	12 33 37.38	16 54 57.6	13.7	630	14.92 12.34 pa=160.53	
-B	12 33 55.19	16 48 47.6	14.3	1338		
1589	12 38 30.52	18 49 41.1	14.0	537	15.38 12.05 pa=114.19	
1597	12 38 24.49	72 35 30.4	17.0	207	18.41 15.89 pa=50.53	
1608-A	12 43 16.74	33 40 51.6	15.6	260	12.49 12.07 pa=36.71	
-B	12 43 17.37	33 40 45.7	16.2			
1620	12 47 29.75	-01 16 06.1	14.2	286	15.86 14.21 pa=10.03	4
1630	12 48 55.91	05 03 02.3	17.5	554	14.41 11.86 pa=163.33	
1638	12 52 04.94	19 12 17.2	15.8	74	12.84 12.42 pa=24.17	
1644-A	12 54 32.92	-17 08 22.2	12.8	104	17.06 11.06 pa=160.40	
-B	12 55 10.50	-17 00 12.3	13.8	62		
1650	12 56 04.06	-01 18 18.6	14.4	124	15.83 13.99 pa=4.59	
1667-A	13 00 54.54	32 06 08.1	15.7	325	12.20 11.75 pa=37.44	5,6
-B	13 00 52.24	32 06 39.3	16.5			
-C	13 00 52.82	32 06 24.0	15.4			
1668	13 01 19.18	19 32 21.2	14.0	74	15.28 12.45 pa=118.80	
1681	13 03 03.18	72 13 44.8	18.0	242	20.43 13.01 pa=64.48	
1731-A	13 20 58.62	58 25 41.3	15.4	325	18.79 11.63 pa=76.85	
-B	13 20 58.09	58 25 32.6	15.5			
-C	13 21 01.36	58 25 51.5	16.5			
1736-A	13 23 29.90	-27 10 10.0	14.8	513	23.17 12.03 pa=168.62	
-B	13 23 57.59	-27 10 47.7	12.9	80		
-C	13 24 00.22	-26 51 35.7	13.6	237		
-D	13 24 26.82	-26 45 33.6	15.2	62		
-E	13 24 24.60	-26 45 58.2	15.4			
-F	13 24 24.65	-26 46 16.8	15.2			
-G	13 24 27.59	-26 44 29.5	15.2			
-H	13 25 13.46	-27 05 43.7	13.0	11		
1749	13 27 06.58	37 52 51.1	13.7	13	13.75 13.70 pa=37.30	

Abell Clu	R.A.(1950.0)	Dec. (1950)	Gal Mag	Flux Den	Clean Beam	Ref
1761-A	13 30 58.27	57 55 03.1	16.5	221	14.58 11.37 pa=177.78	
-B	13 30 59.00	57 55 01.5	17.0			
1775-A	13 39 29.52	26 37 32.0	13.2	40	14.85 12.23 pa=119.13	4,5
-B	13 39 30.86	26 37 19.0	13.4	287		
1790	13 44 04.84	54 18 15.3	16.5	247	20.79 11.77 pa=89.89	
1795-A	13 46 34.07	26 50 28.5	12.9	883	12.35 12.11 pa=137.73	
-B	13 46 40.48	26 48 29.8	15.0	35		
1825-A	13 55 38.89	20 52 31.6	13.9	18	15.22 14.88 pa=128.53	
-B	13 55 41.85	20 51 42.2	13.9	25		
-C	13 55 42.02	20 52 13.9	14.2			
1827	13 55 45.66	21 54 53.6	13.8	112	14.44 14.23 pa=125.30	
1828-A	13 55 18.31	18 30 51.0	16.2	29	14.88 13.88 pa=129.67	
-B	13 55 51.89	18 35 20.2	13.9	11		
-C	13 55 59.24	18 32 33.7	14.8	27		
-D	13 56 14.32	18 39 36.4	14.1	14		
1851-A	13 59 51.12	72 27 30.0	17.0	15	20.07 10.54 pa=77.65	
-B	13 59 48.64	72 27 46.6	17.5			
-C	13 59 54.78	72 27 36.3	17.0			
1880	14 10 54.5	22 42 00.3	15.4			
1893	14 12 02.97	74 34 18.4	17.0	194	22.84 11.09 pa=82.61	
1898-A	14 18 23.44	25 12 33.5	17.0	15	14.50 13.55 pa=65.66	
-B	14 18 26.04	25 14 17.3	17.0	112		
-C	14 18 26.38	25 22 27.9	15.0	116		
-D	14 18 35.74	25 26 40.7	16.5	18		
1971	14 45 40.62	14 59 19.5	15.7	419	14.23 14.02 pa=33.96	
1982	14 49 07.66	30 56 42.1	16.2	21	14.23 14.06 pa=47.11	
2025-A	15 04 44.03	34 39 54.0	14.4	206	14.84 14.37 pa=48.38	
-B	15 04 45.48	34 39 54.4	14.3			
-C	15 06 05.46	34 34 50.3	13.8	109		
2026	15 06 20.08	-00 00 23.8	13.8	19	12.73 11.56 pa=145.54	
2028	15 07 01.00	07 44 46.8	13.7	35	14.27 13.47 pa=171.55	
2040-A	15 10 07.13	07 37 05.7	14.2	17	14.48 13.78 pa=11.32	
-B	15 10 45.70	07 24 41.6	13.3	46		
2063-A	15 20 39.49	08 47 12.6	11.9	13	17.01 16.67 pa=131.49	
-B	15 21 46.68	08 43 15.1	14.4	16		
2091-A	15 31 54.69	10 26 45.8	16.2	297	10.79 10.49 pa=138.19	4
-B	15 31 52.72	10 26 28.1	17.0			
-C	15 31 54.70	10 26 25.5	17.0			
-D	15 31 55.02	10 27 16.0	16.2			
-E	15 31 55.74	10 25 55.0	16.5			
2141	15 55 49.58	35 39 02.1	14.7	216	14.73 12.80 pa=120.07	
2142	15 56 10.18	27 24 50.5	15.4	130	11.74 10.80 pa=152.66	
2149	16 00 14.10	54 05 08.2	13.5	72	13.32 12.27 pa=30.42	
2152	16 03 12.98	16 34 11.9	13.0	44	17.93 14.59 pa=79.04	
2169-A	16 13 58.57	49 14 40.8	15.4	189	12.51 12.18 pa=40.25	

TABLE 1—*Continued*

Abell Clu	R.A.(1950.0)	Dec. (1950)	Gal Mag.	Flux Den	Clean Beam	Ref
-B	16 14 00.04	49 15 23.3	14.7			
2184-A	16 19 44.15	50 20 23.4	13.8	42	12.57 12.19 pa=39.87	
-B	16 19 47.22	50 19 53.8	16.2	6		
-C	16 19 41.52	50 21 12.3	16.5			
-D	16 19 31.54	50 21 52.3	15.5	18		
2198-A	16 26 29.74	43 48 31.4	18.0	12	14.82 13.52 pa=125.90	
-B	16 26 48.86	44 03 59.5	15.3	18		
2214	16 36 15.71	37 58 53.7	15.7	617	17.85 13.15 pa=67.59	1
2225	16 38 48.92	55 51 56.1	16.5	271	11.21 11.17 pa=135.47	
2247	16 55 39.46	81 39 15.9	14.2	290	21.63 12.96 pa=114.11	
2304-A	18 18 40.73	68 46 31.7	17.0	16	17.84 17.35 pa=134.06	8
-B	18 18 41.56	68 46 27.6	17.5			
-C	18 20 01.32	68 55 24.0	15.0	801		
2311-A	18 49 08.29	70 24 23.6	17.0	26	12.43 11.42 pa=142.68	
-B	18 49 46.57	70 17 36.9	15.3	163		
2319-A	19 18 45.26	43 57 02.2	14.5	80	12.01 11.06 pa=148.33	
-B	19 19 35.67	43 47 28.4	14.7	18		
2361-A	21 36 55.72	-14 33 53.5	14.4	271	17.58 12.43 pa=179.58	
-B	21 36 56.35	-14 33 52.2	14.7			
2363	21 38 44.50	-08 30 15.0	18.5	264	16.32 12.59 pa=0.83	
2366	21 39 43.25	-06 57 36.0	16.5	315	17.23 15.74 pa=29.09	
2372	21 42 28.08	-20 13 31.8	13.8	351	21.31 12.59 pa=8.51	
2390	21 51 14.18	17 27 33.0	16.5	203	11.31 10.41 pa=145.33	
2395	21 52 57.65	08 32 33.2	16.2	226	12.74 12.13 pa=150.89	
2396	21 53 15.92	12 17 12.6	15.7	411	16.10 15.64 pa=55.89	
2401-A	21 55 36.12	-20 20 35.3	14.5	31	22.55 12.21 pa=1.35	
-B	21 56 02.95	-20 21 08.6	14.8	172		
2412	22 01 15.70	-21 41 26.3	14.5	230	17.73 15.02 pa=33.02	
2420	22 07 38.10	-12 25 01.7	13.8	17	17.75 11.91 pa=173.74	
2433-A	22 15 32.18	13 47 22.8	16.5	22	13.68 12.38 pa=11.09	
-B	22 15 33.77	13 47 30.4	16.5			
-C	22 15 33.89	13 47 24.2	17.0			
2457-A	22 33 42.45	01 04 11.8	16.5	113	17.67 17.08 pa=53.82	4
-B	22 34 13.56	01 21 06.8	16.2	25		4
2459	22 34 15.26	-15 46 18.8	14.8	31	19.69 15.57 pa=16.65	
2495-A	22 47 04.01	10 40 03.4	17.0	71	15.32 14.80 pa=130.69	
-B	22 47 49.88	10 38 17.1	13.7	14		
2522-A	22 59 33.89	13 45 06.7	16.2	337	12.17 10.78 pa=155.60	
-B	22 59 31.19	13 45 41.1	16.2			
2538-A	23 05 49.84	-20 07 04.7	14.9	120	20.41 10.93 pa=173.98	
-B	23 05 53.28	-20 07 39.0	14.2	63		
-C	23 06 13.84	-20 10 18.9	15.4	16		
2556	23 10 25.44	-21 54 06.0	13.8	16	21.32 10.78 pa=175.04	
2558-A	23 10 12.29	10 05 24.0	13.8	13	12.45 12.19 pa=138.33	
-B	23 10 55.45	10 03 29.1	15.5	15		
2559	23 10 28.31	-14 01 22.2	15.3	126	18.03 11.46 pa=174.56	
2564	23 11 58.55	13 42 46.6	18.5	194	12.55 11.05 pa=158.16	
2566	23 13 26.41	-20 44 12.8	15.2	23	16.84 11.77 pa=153.65	
2589	23 21 23.83	16 24 21.1	15.2	46	14.56 14.31 pa=133.35	
2593-A	23 22 01.05	14 21 52.1	13.8	187	14.67 14.42 pa=133.31	4
-B	23 22 03.00	14 22 45.6	14.7			
-C	23 22 06.25	14 22 03.2	13.6	76		
2597-A	23 22 43.66	-12 23 57.0	13.9	1699	17.06 11.50 pa=170.95	
-B	23 22 59.40	-12 16 05.9	18.5	52		
2617	23 30 58.81	09 08 58.7	16.5	218	15.25 14.62 pa=125.13	
2618	23 30 44.55	22 37 41.8	15.2	34	20.76 14.36 pa=69.86	
2626	23 33 59.43	20 52 12.3	13.0	55	15.68 15.26 pa=175.67	4
2627-A	23 34 11.52	23 38 52.5	15.5	385	11.71 10.35 pa=152.54	
-B	23 34 11.86	23 38 08.4	15.5	24		
2633	23 35 14.71	12 50 22.7	17.5	244	12.09 10.83 pa=151.22	
2638	23 37 55.34	-11 59 48.1	16.5	98	17.92 11.85 pa=172.10	
2660	23 42 39.94	-26 06 46.8	14.3	11	23.97 11.06 pa=173.68	
2665	23 48 17.17	05 52 18.3	13.5	50	16.62 15.84 pa=123.64	

NOTE.—Entries marked with asterisks (*) are also in Paper II (see Paper II for finding charts).

REFERENCES.—(1) O'Donoghue, Owen, & Eilek 1990; (2) Giovannini, Feretti, & Gregorini 1987; (3) Gregorini & Bondi 1989; (4) Slee, Perley, & Siegman 1989; (5) de Ruiter et al. 1986; (6) Fanti et al. 1987; (7) Rudnick & Owen 1977; (8) Owen & Rudnick 1976.

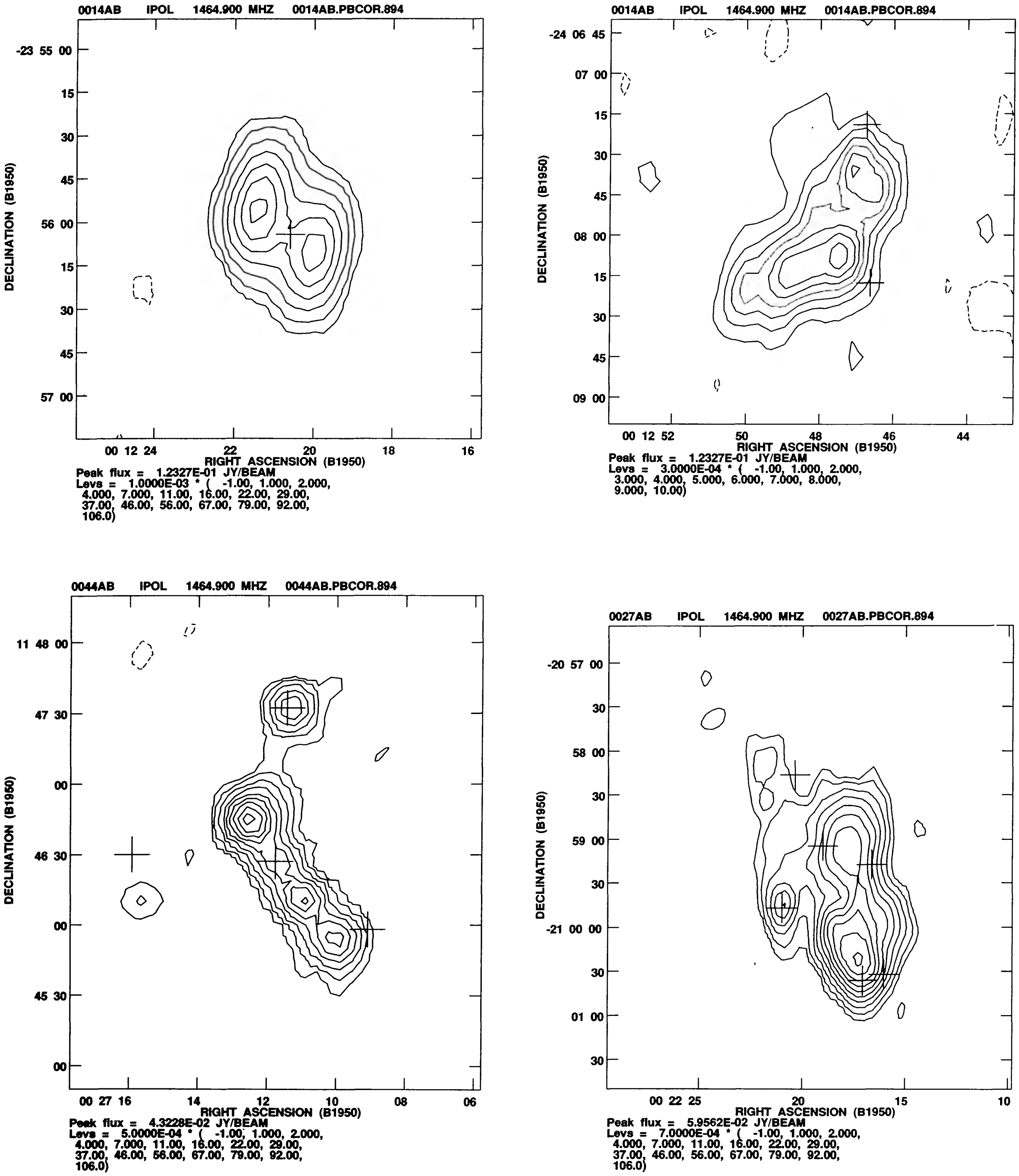


FIG. 1.—Contour maps for the resolved radio galaxies

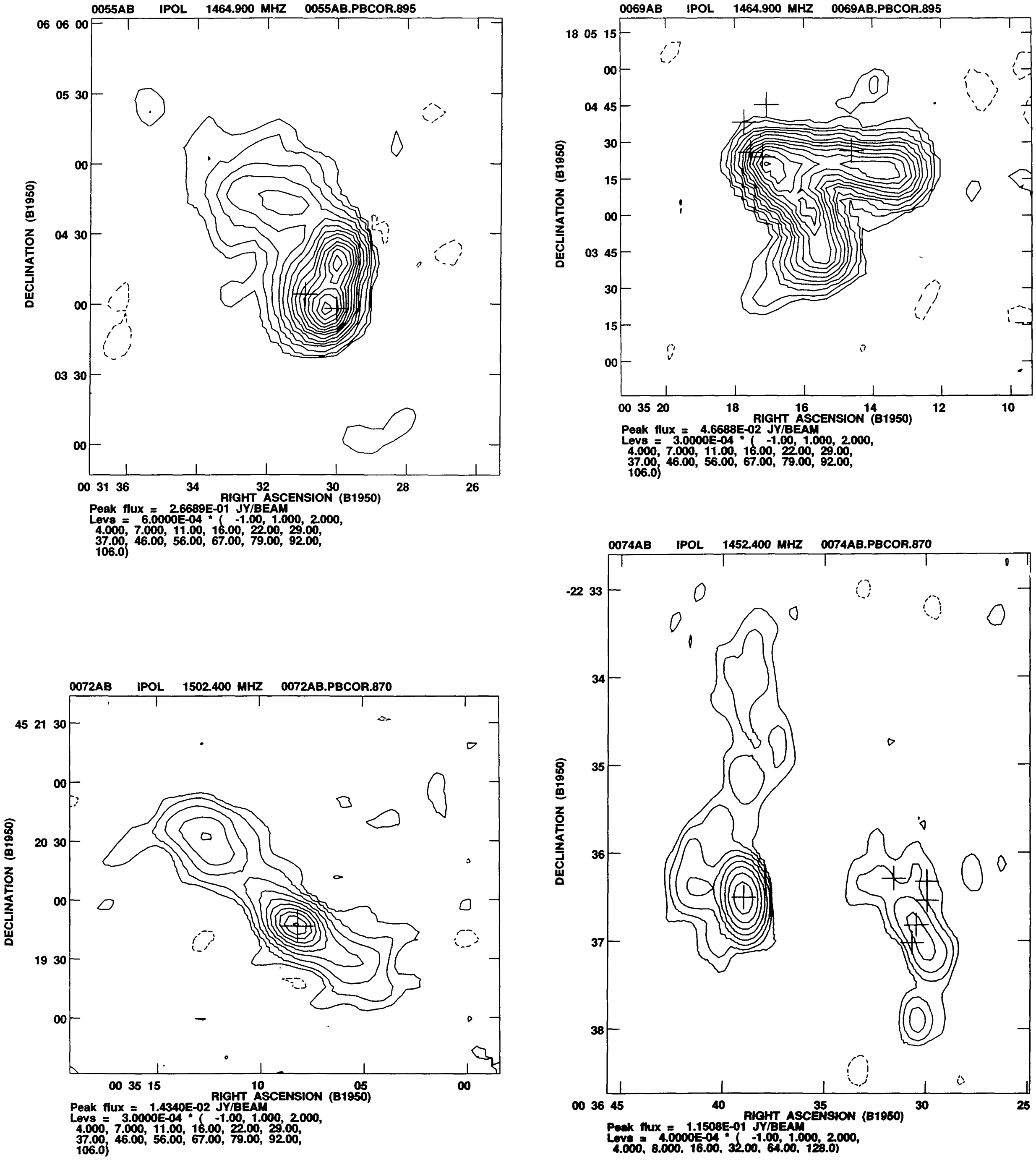


FIG. 1—*Continued*

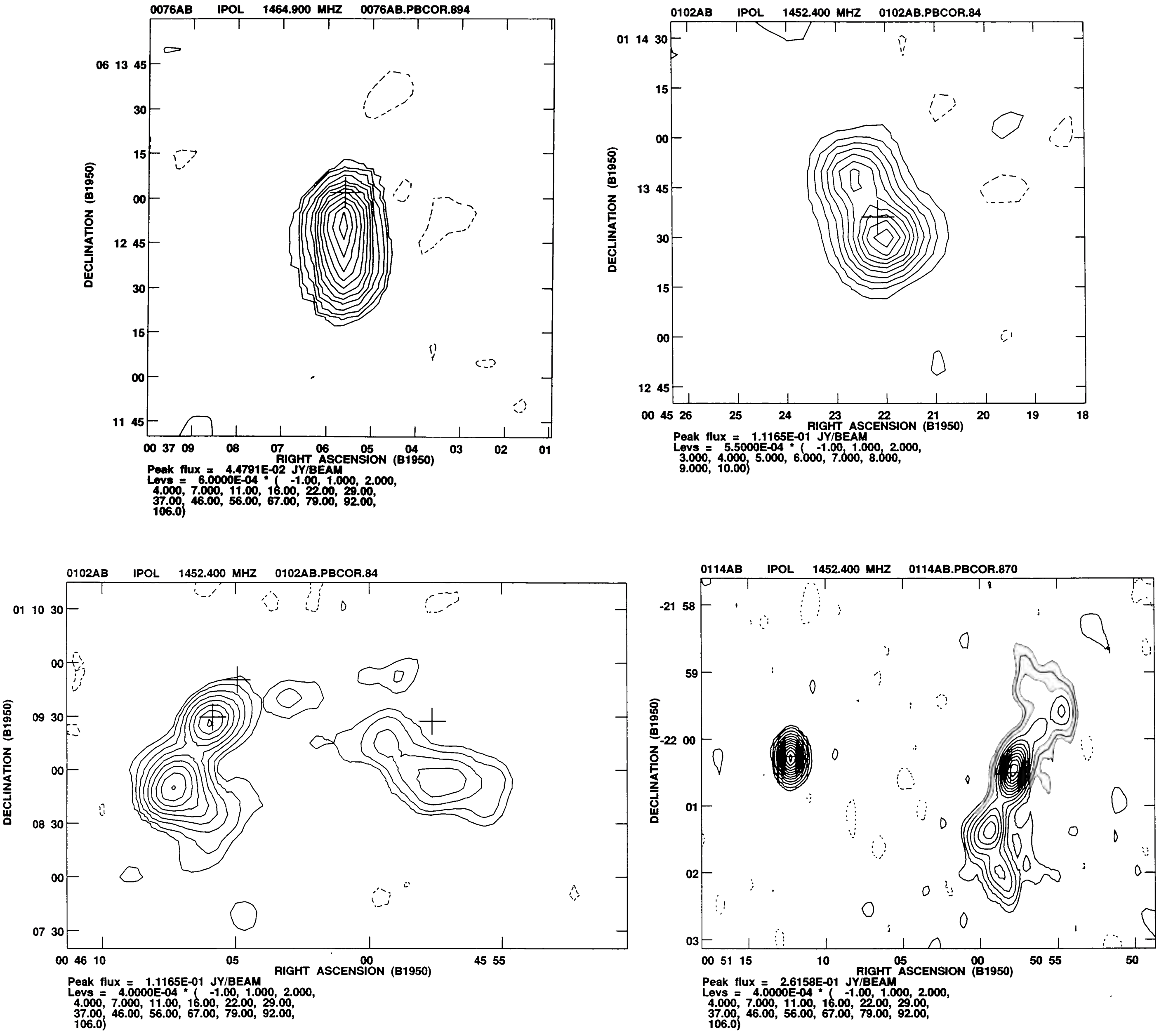


FIG. 1—*Continued*

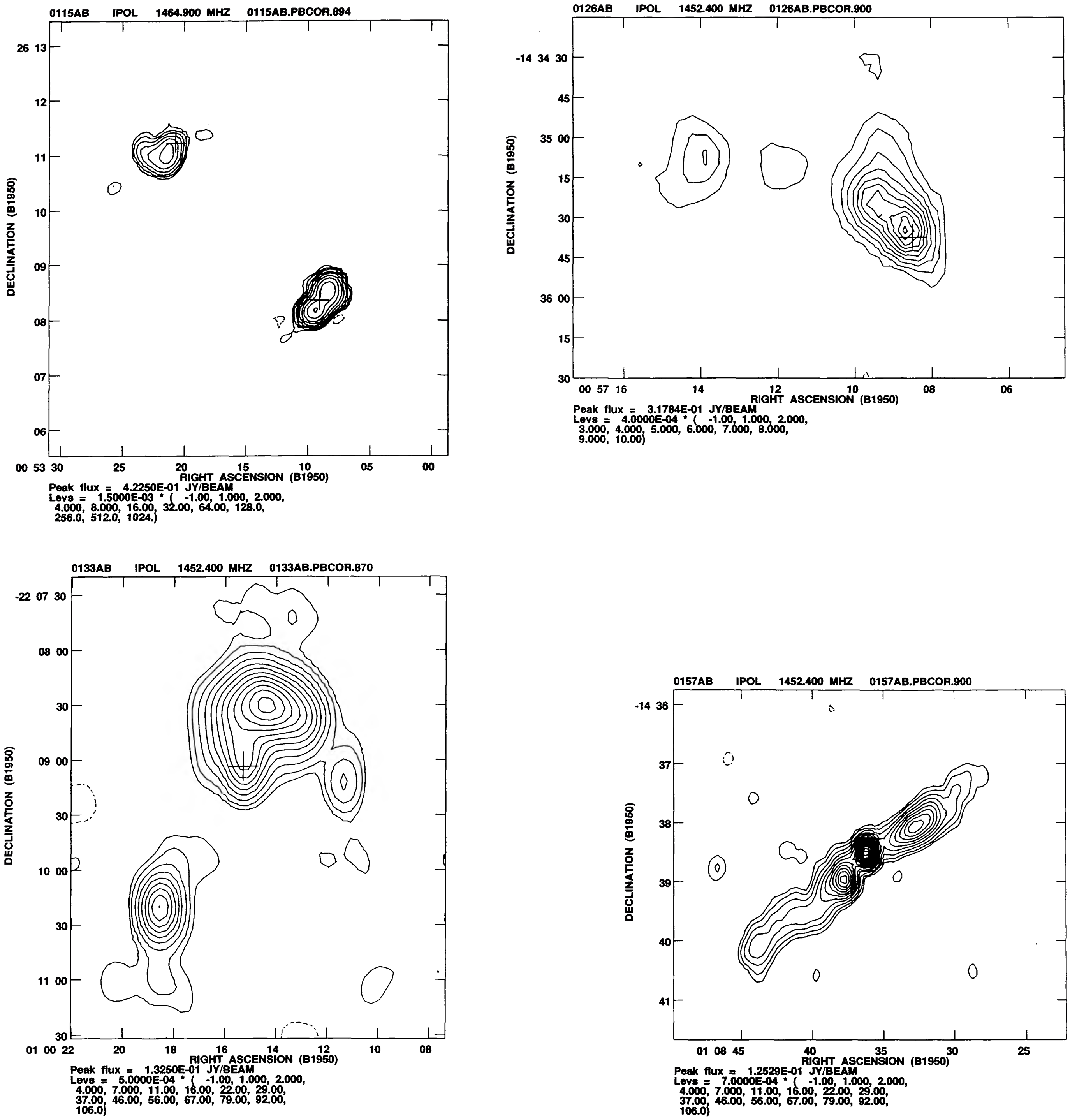


FIG. 1—*Continued*

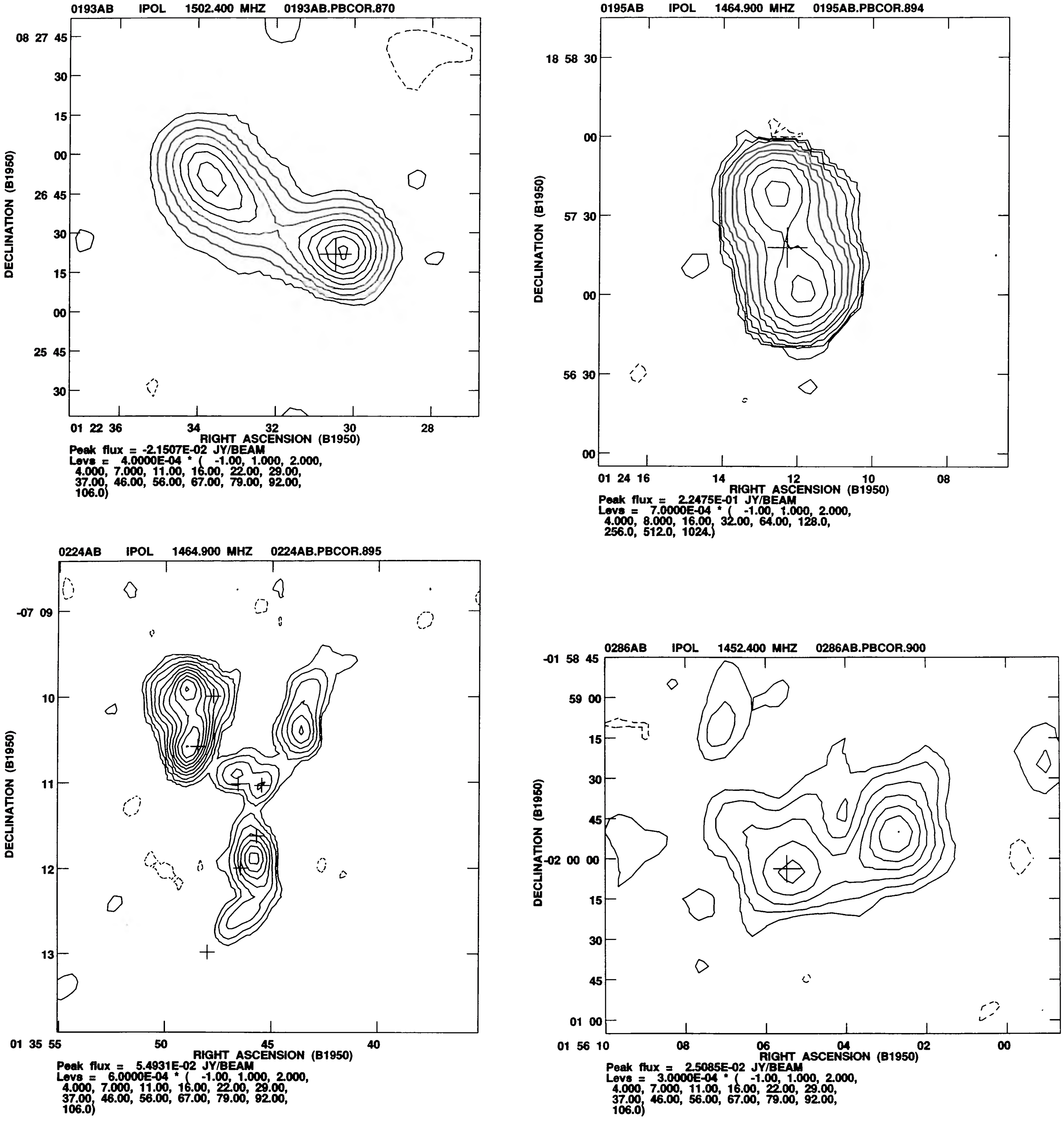
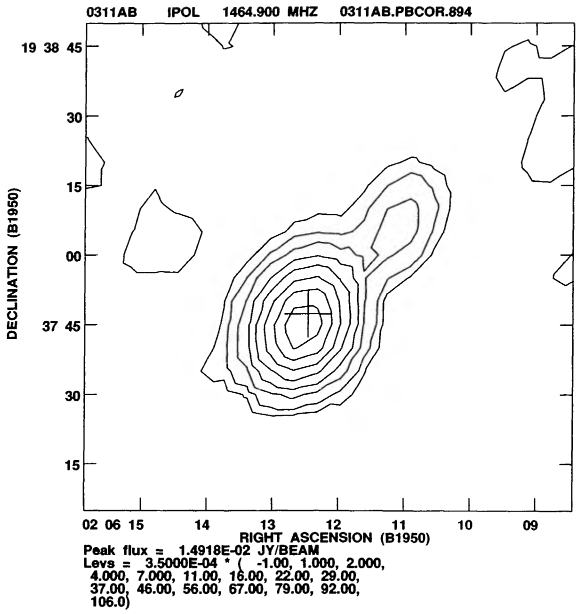
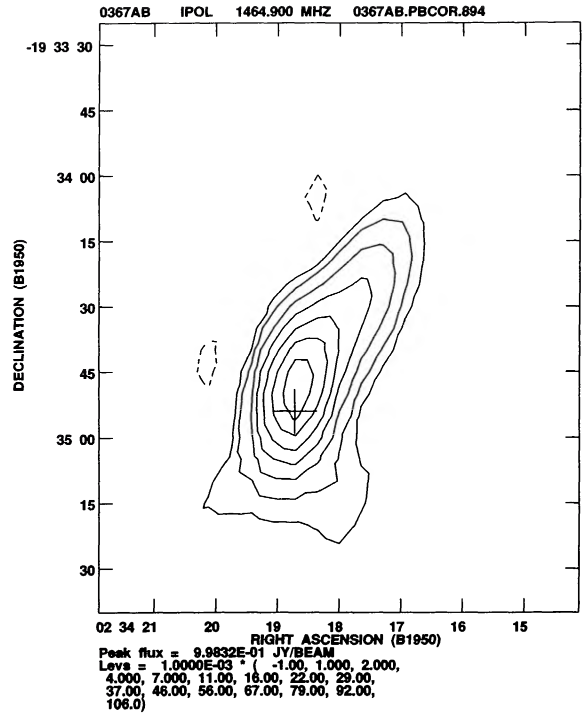
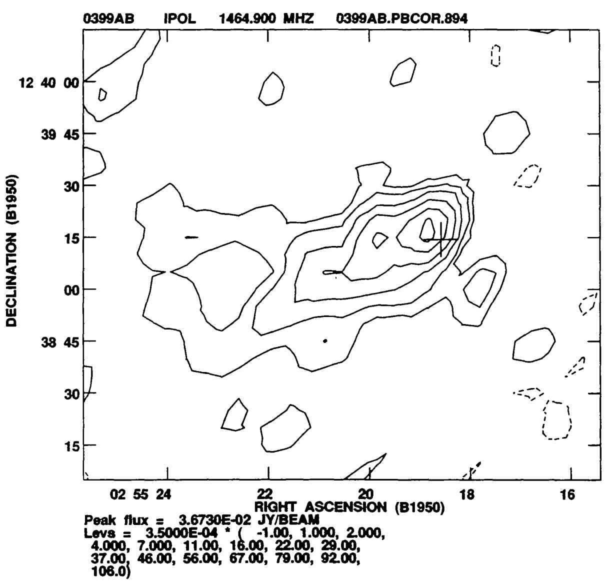


FIG. 1—*Continued*







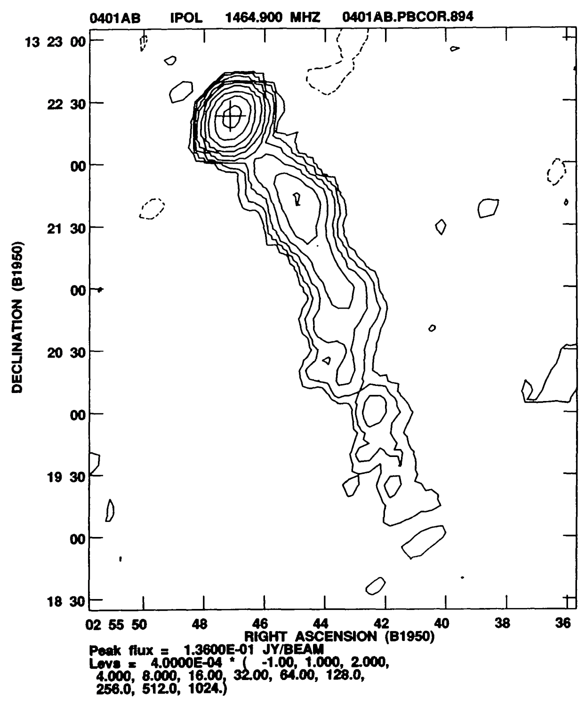


FIG. 1—*Continued*

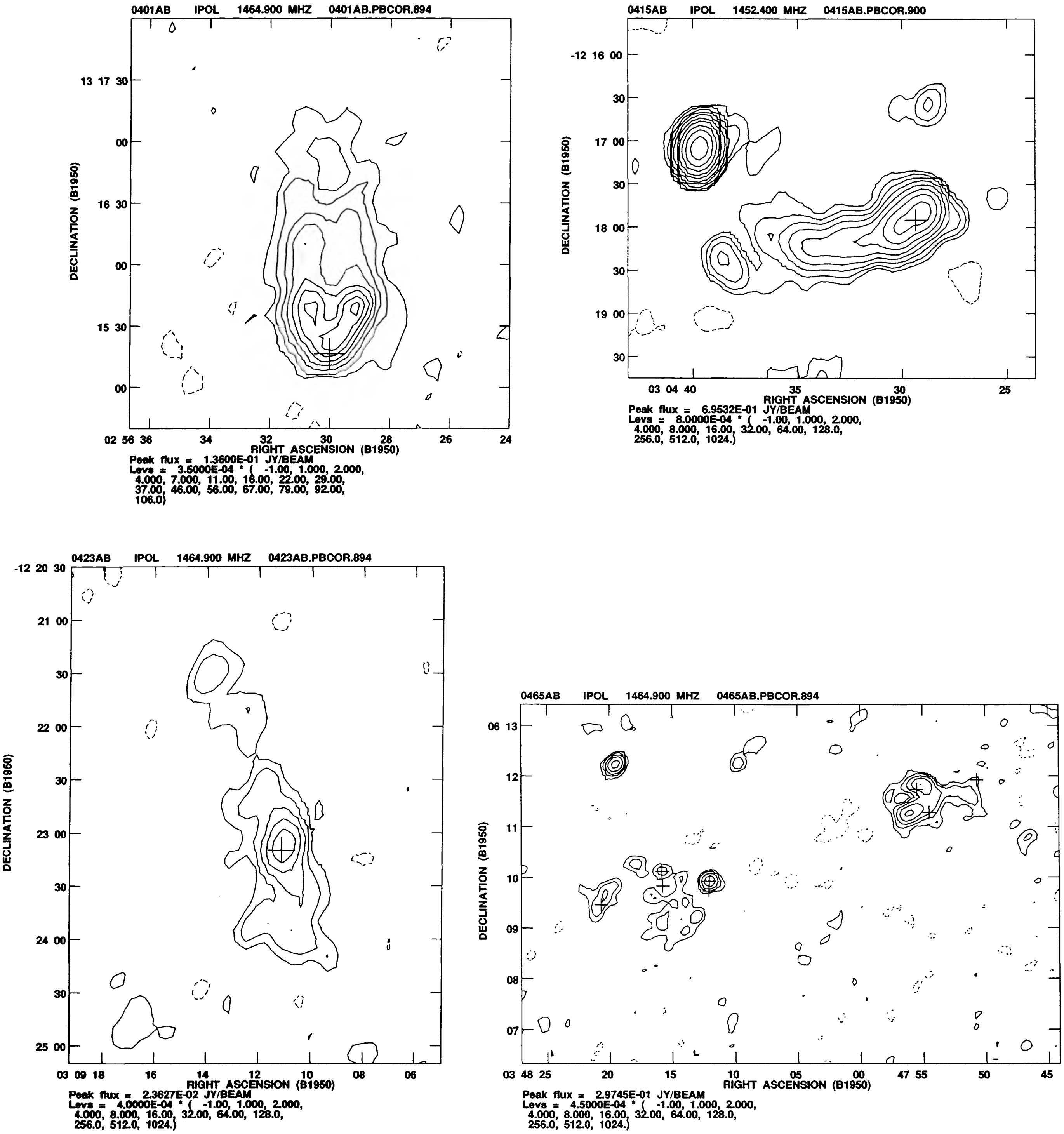


FIG. 1—*Continued*

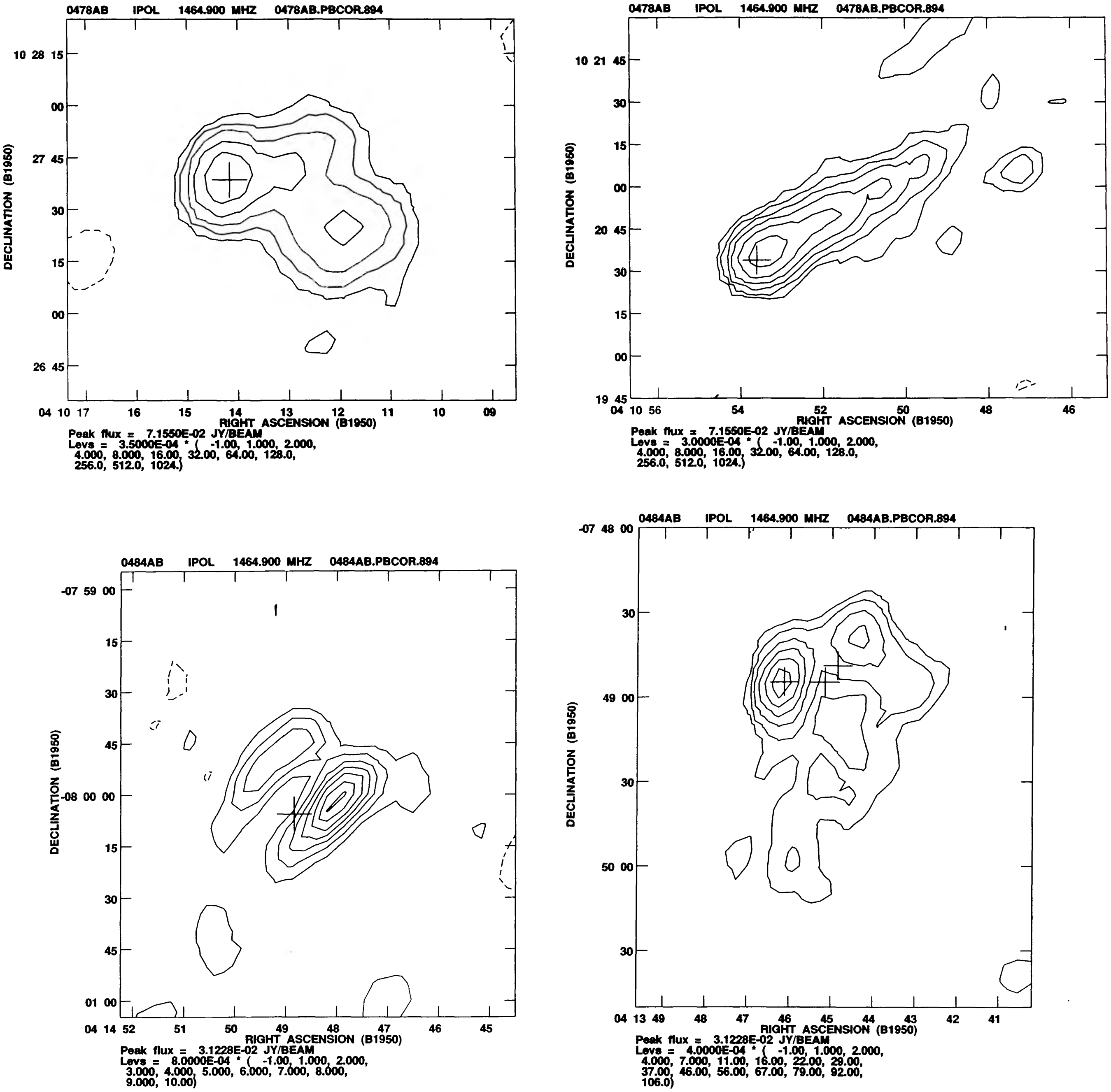


FIG. 1—*Continued*

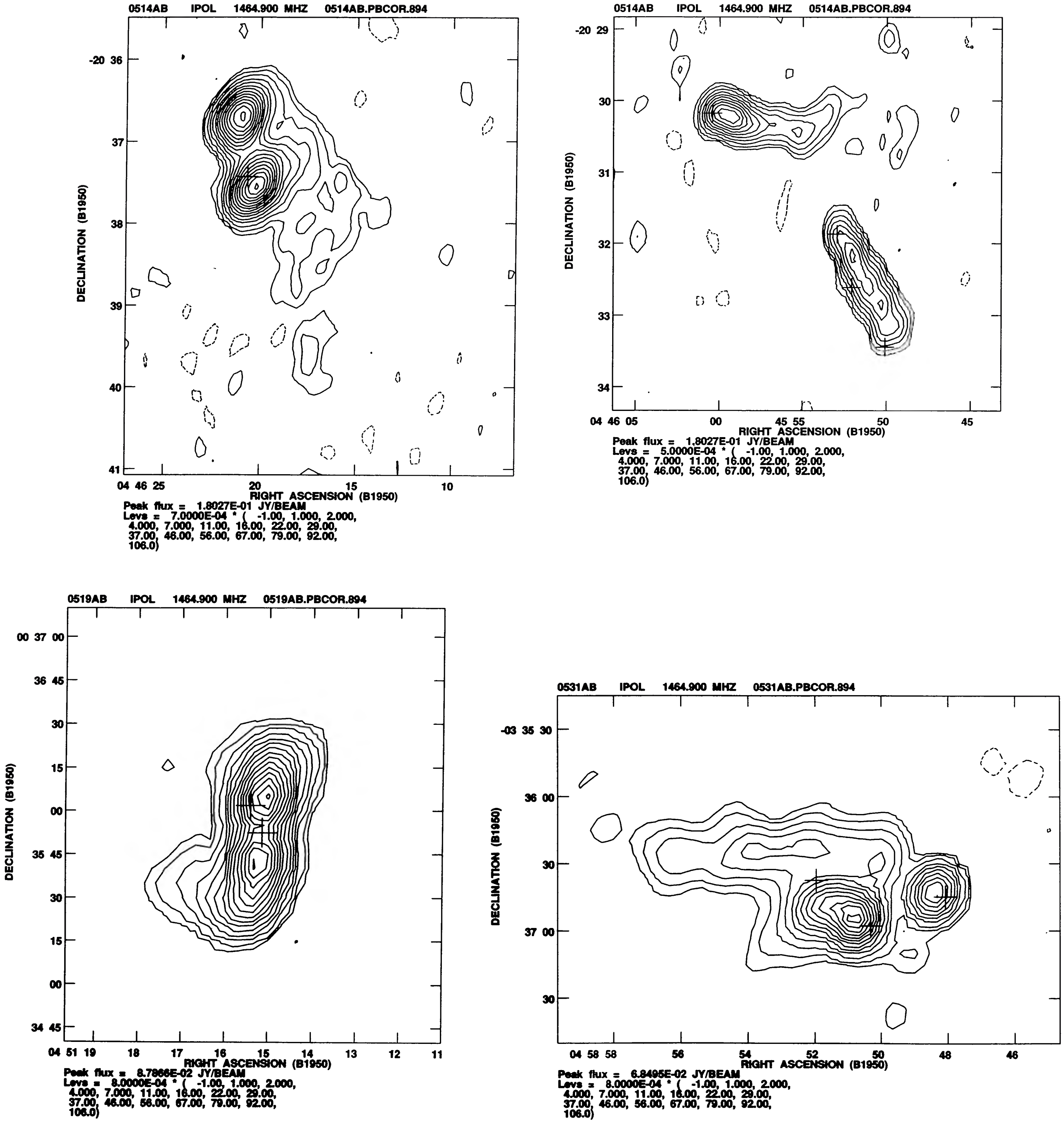


FIG. 1—*Continued*

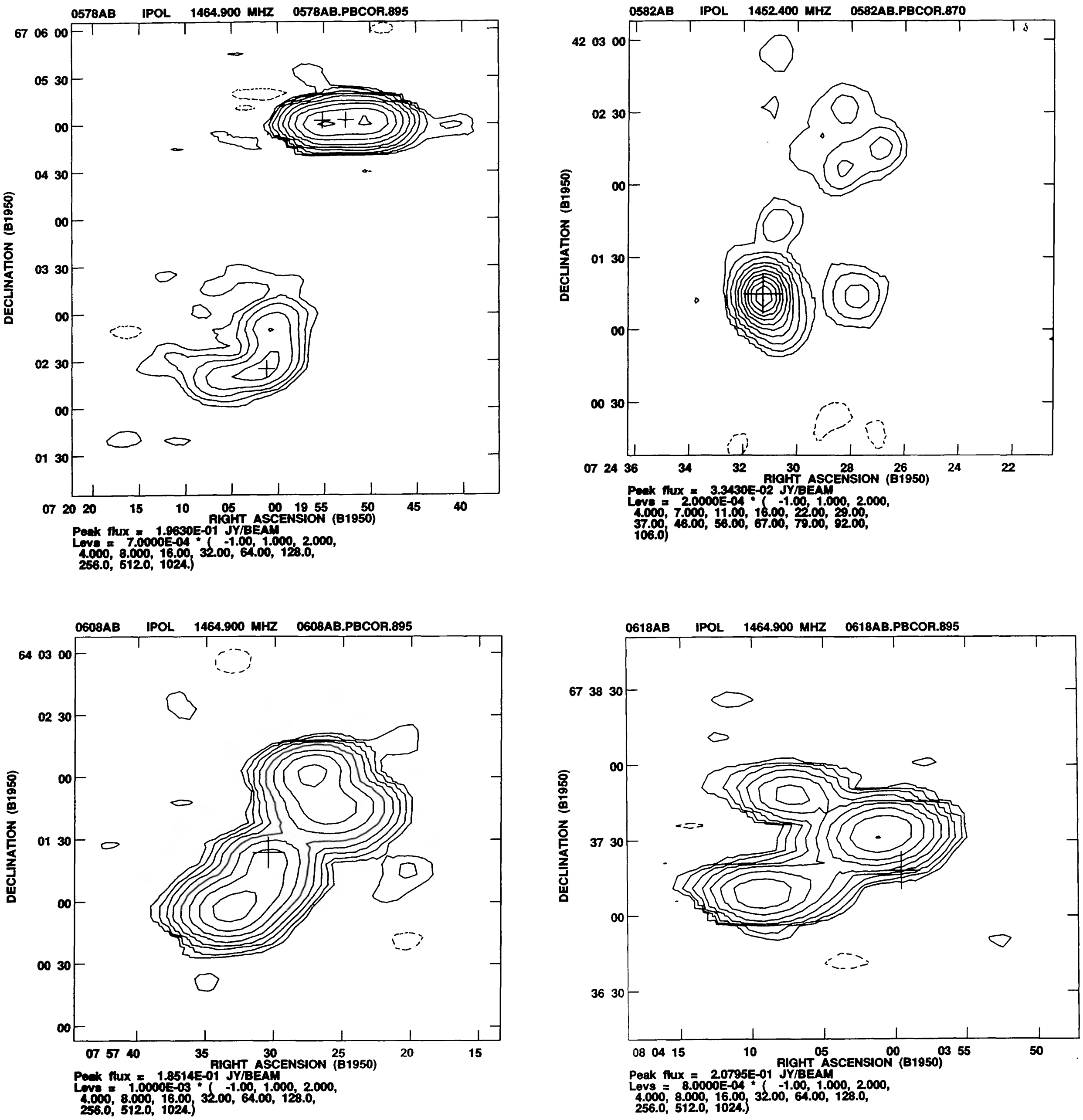


FIG. 1—*Continued*

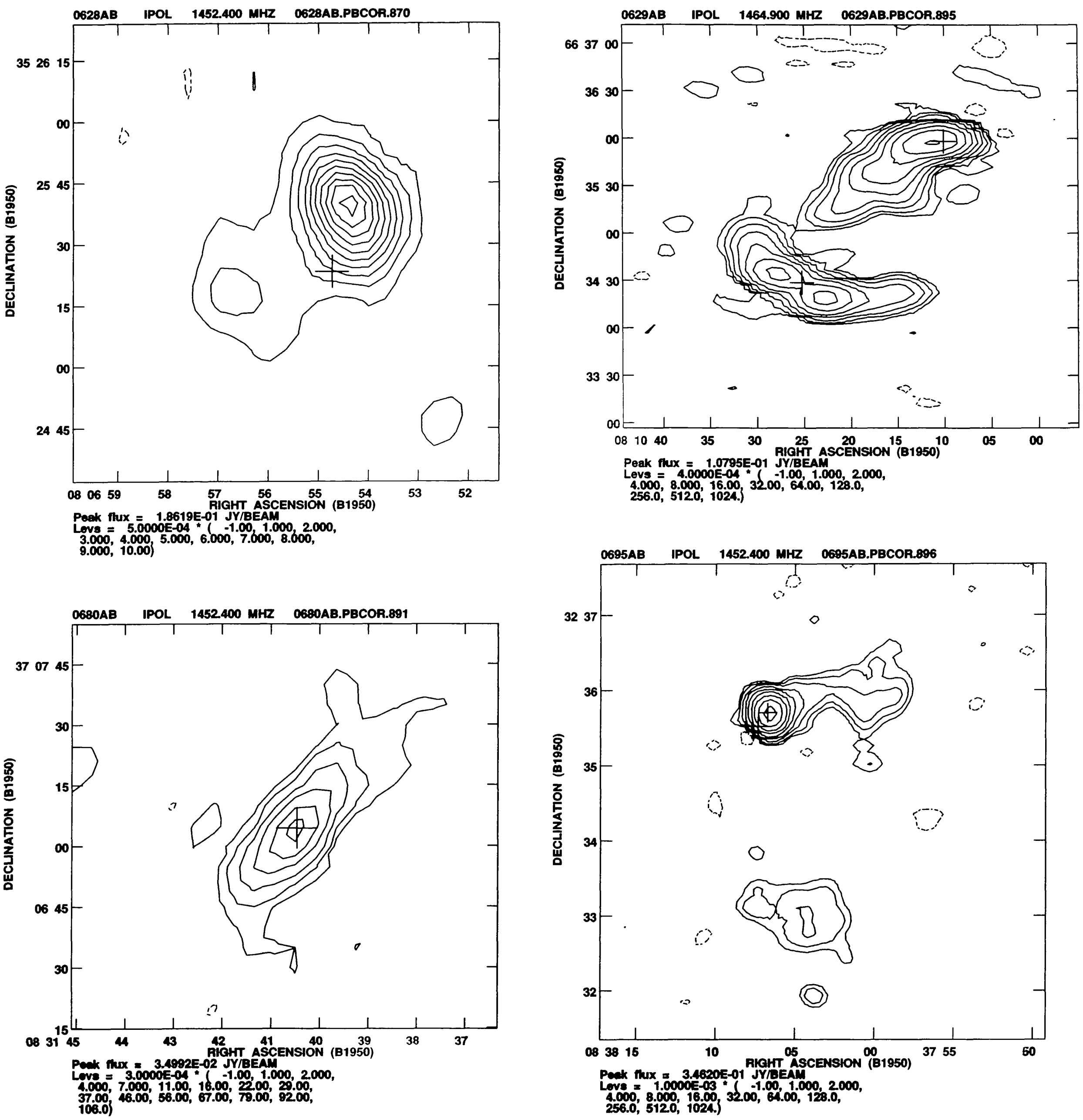


FIG. 1—*Continued*

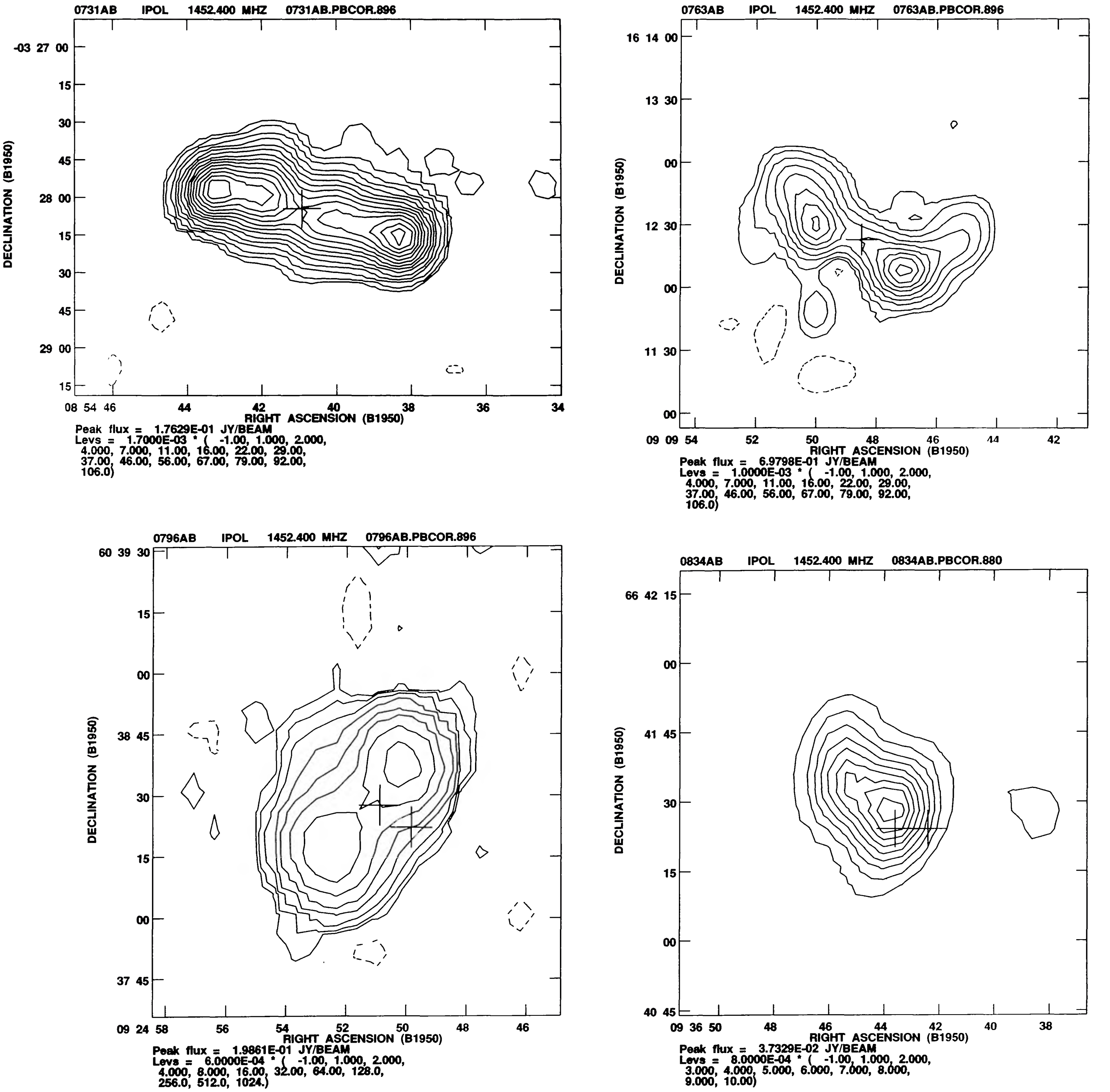
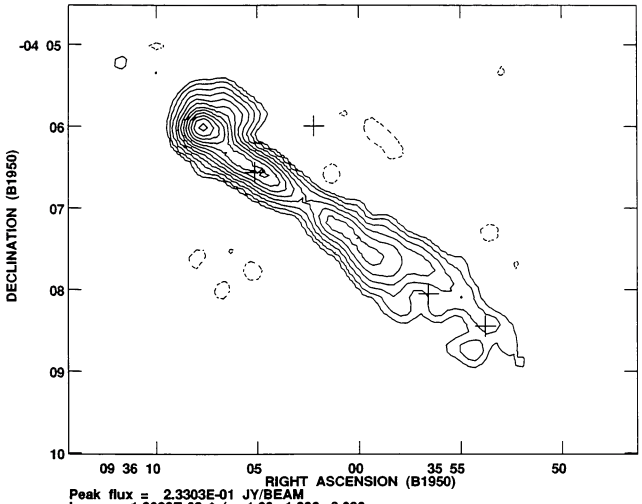


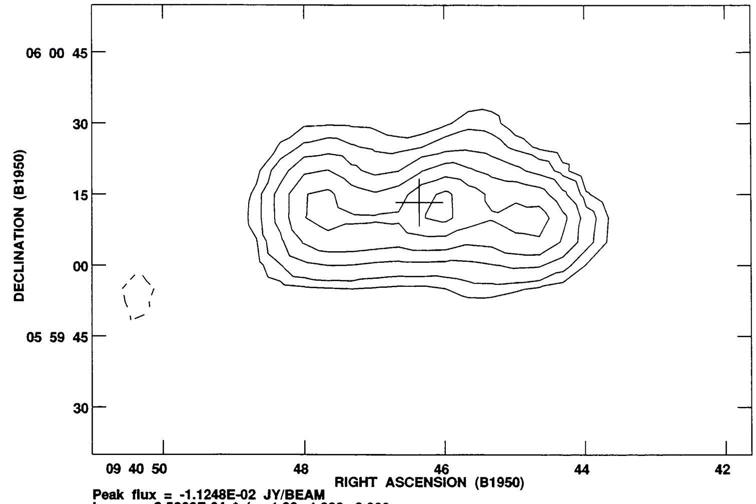
FIG. 1—*Continued*

0841AB IPOL 1452.400 MHZ 0841AB.PBCOR.896



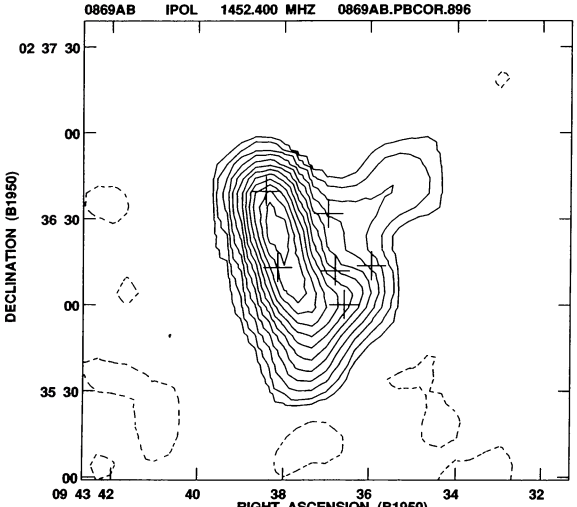
Peak flux = 2.3303E-01 JY/BEAM
Levs = 1.0000E-03 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)

0858AB IPOL 1452.400 MHZ 0858AB.PBCOR.891



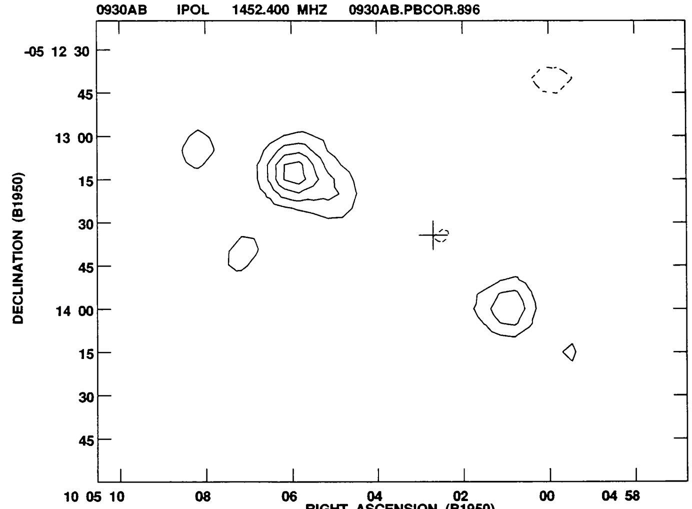
Peak flux = -1.1248E-02 JY/BEAM
Levs = 3.5000E-04 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)

0869AB IPOL 1452.400 MHZ 0869AB.PBCOR.896



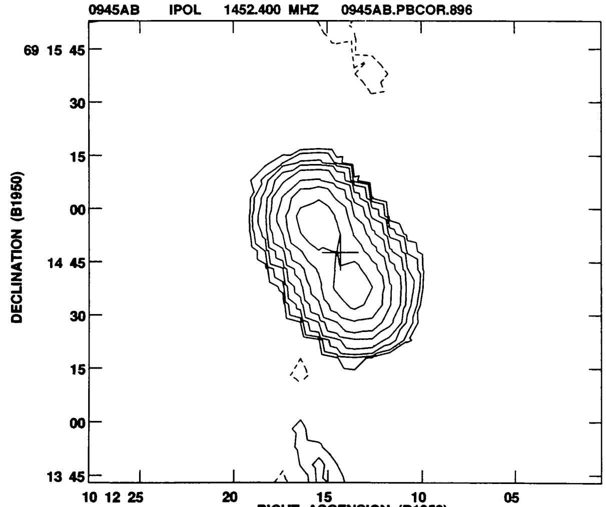
Peak flux = 4.6026E-02 JY/BEAM
Levs = 6.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)

0930AB IPOL 1452.400 MHZ 0930AB.PBCOR.896



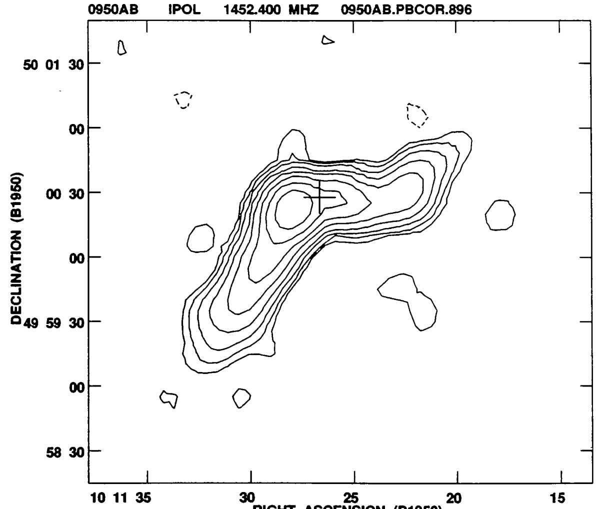
Peak flux = 3.1155E-02 JY/BEAM
Levs = 1.0000E-03 * (-1.00, 1.000, 2.000, 3.000, 4.000, 5.000, 6.000, 7.000, 8.000, 9.000, 10.00)

0945AB IPOL 1452.400 MHZ 0945AB.PBCOR.896



Peak flux = 1.4841E-01 JY/BEAM
Levs = 7.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 8.000, 16.00, 32.00, 64.00, 128.0, 256.0, 512.0, 1024.)

0950AB IPOL 1452.400 MHZ 0950AB.PBCOR.896



Peak flux = 2.0266E-01 JY/BEAM
Levs = 6.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 8.000, 16.00, 32.00, 64.00, 128.0, 256.0, 512.0, 1024.)

FIG. 1—*Continued*

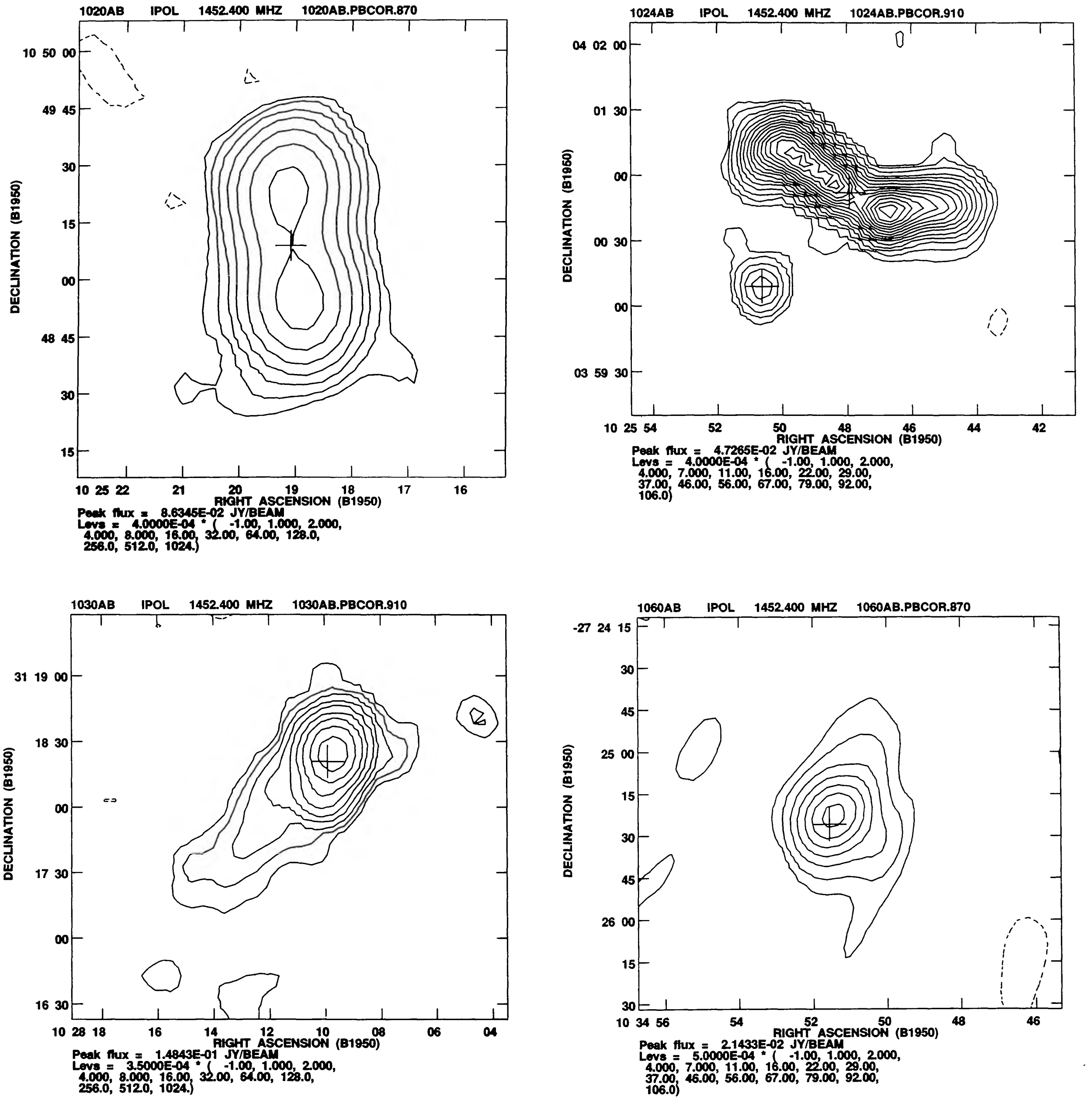
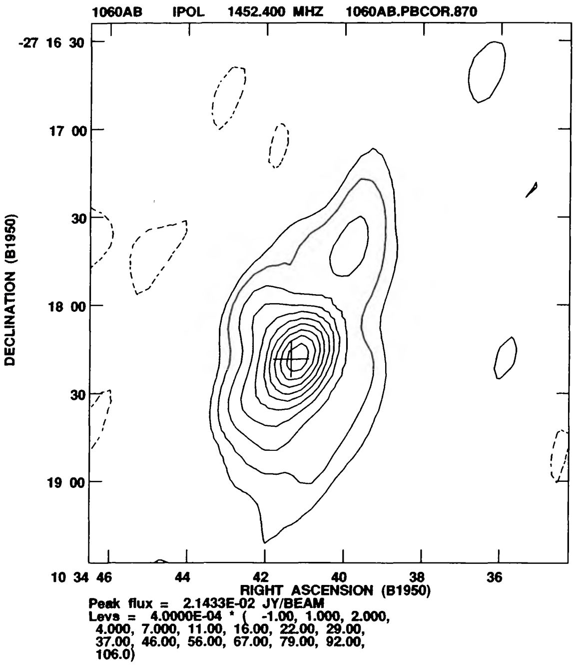
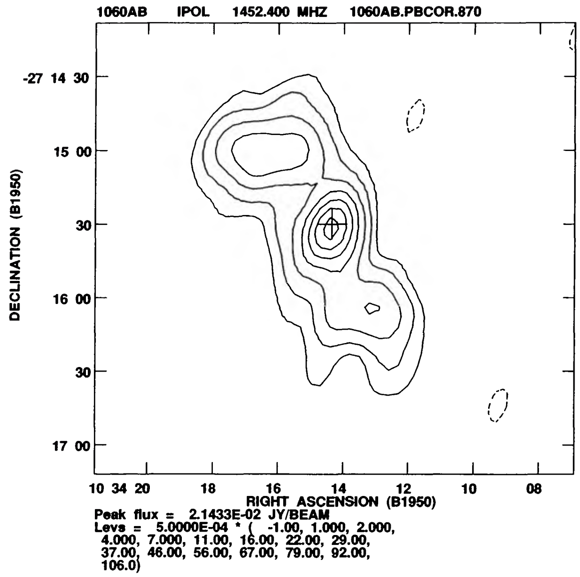
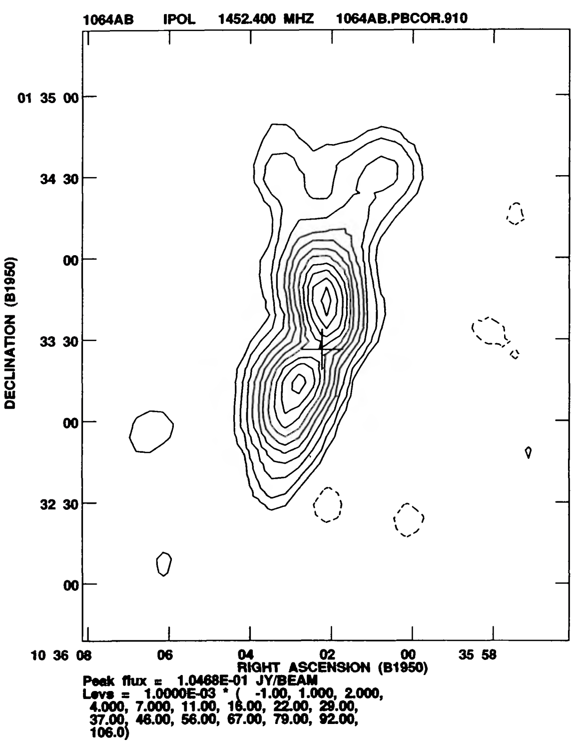


FIG. 1—*Continued*







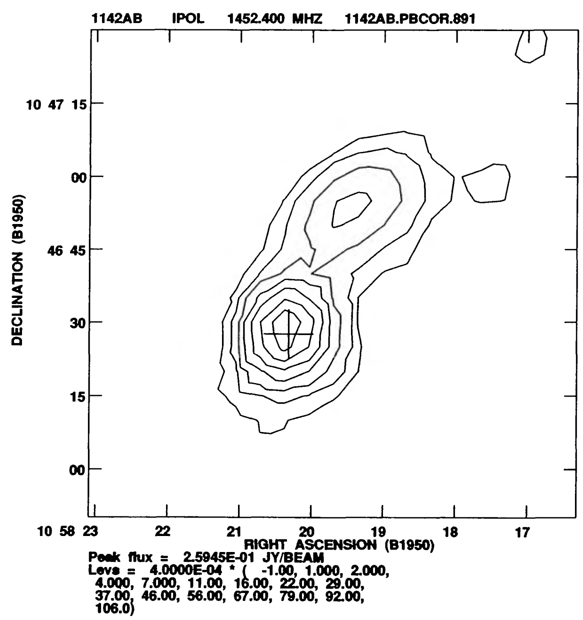


FIG. 1—*Continued*

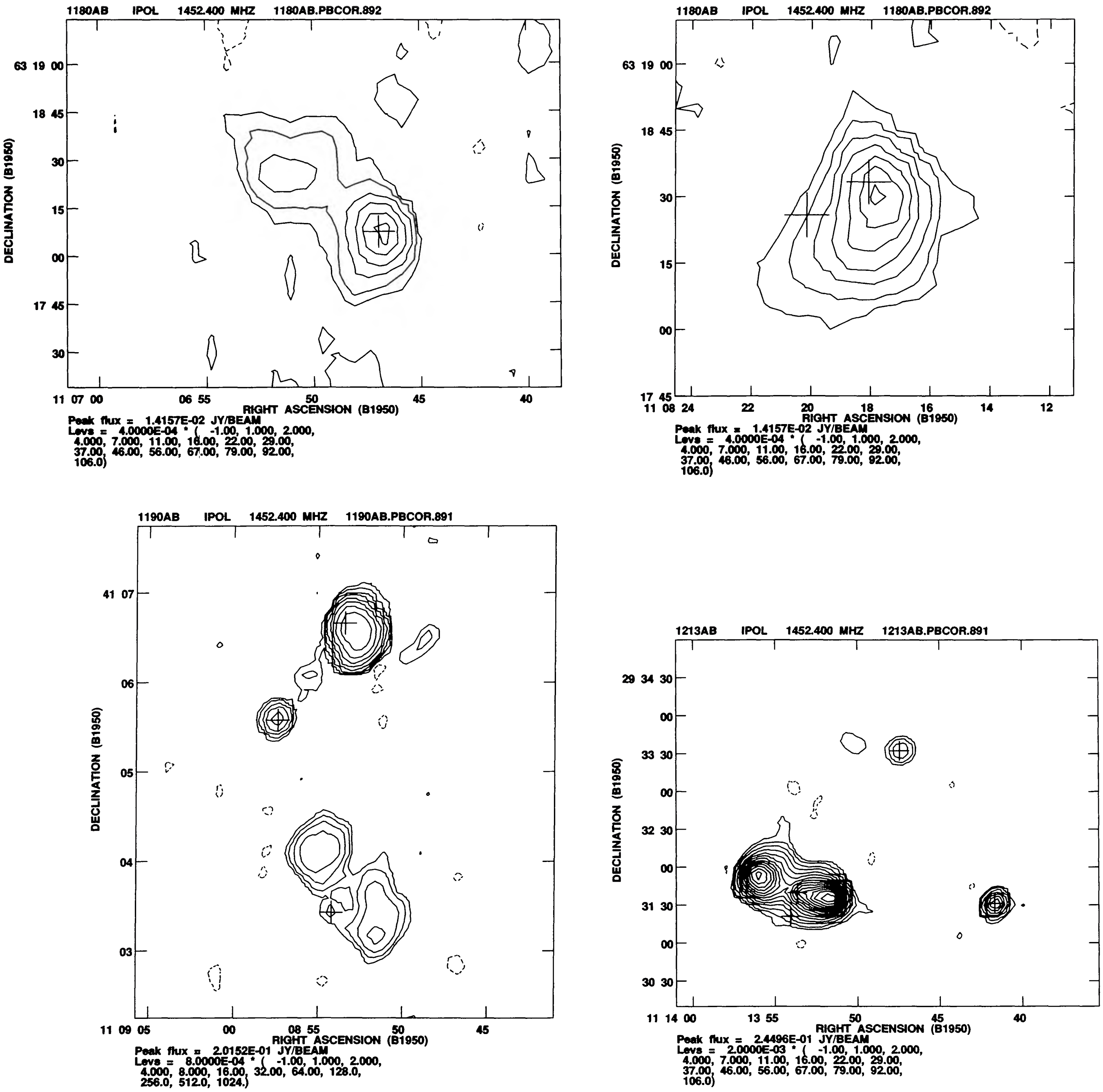


FIG. 1—*Continued*

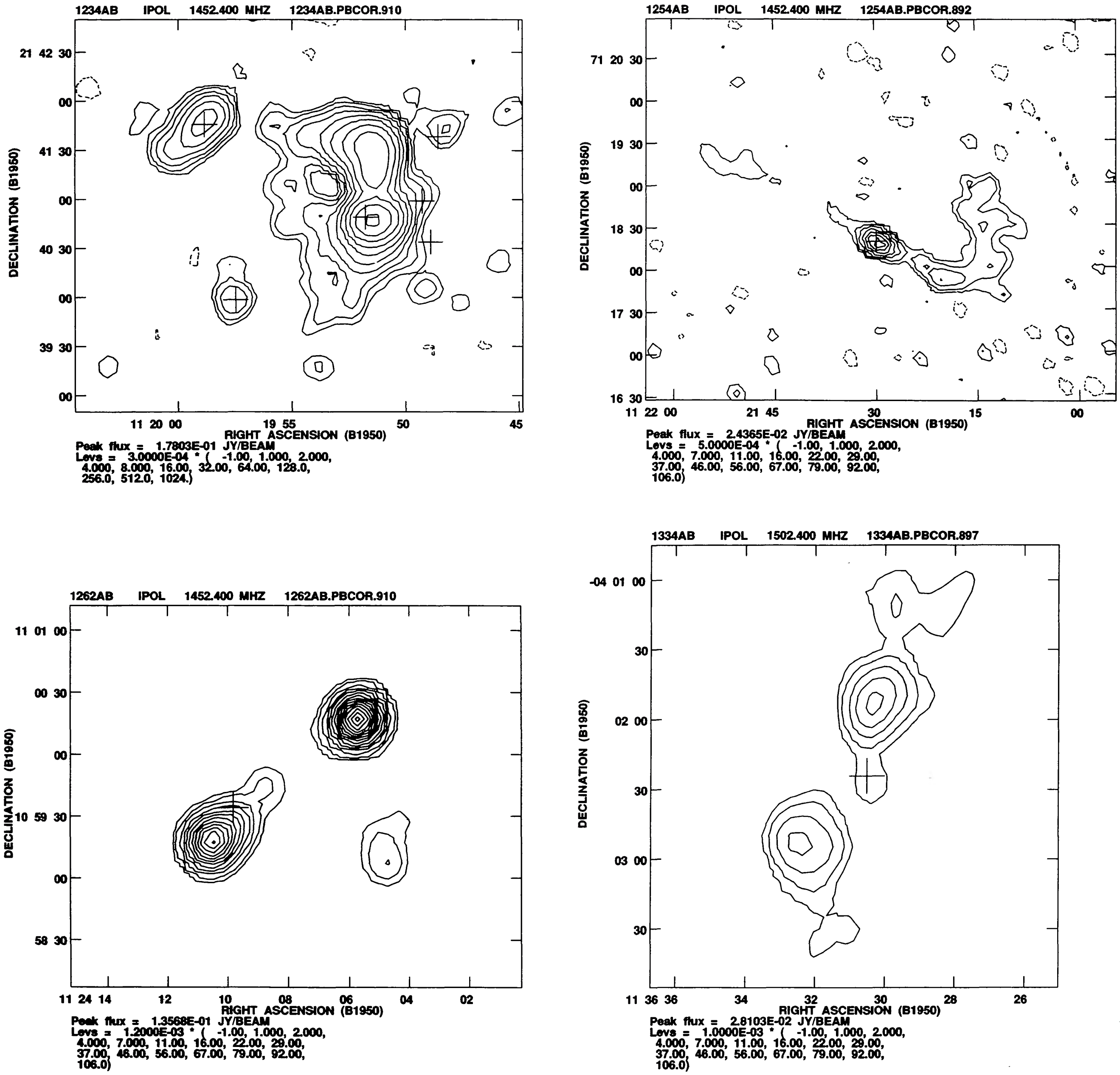
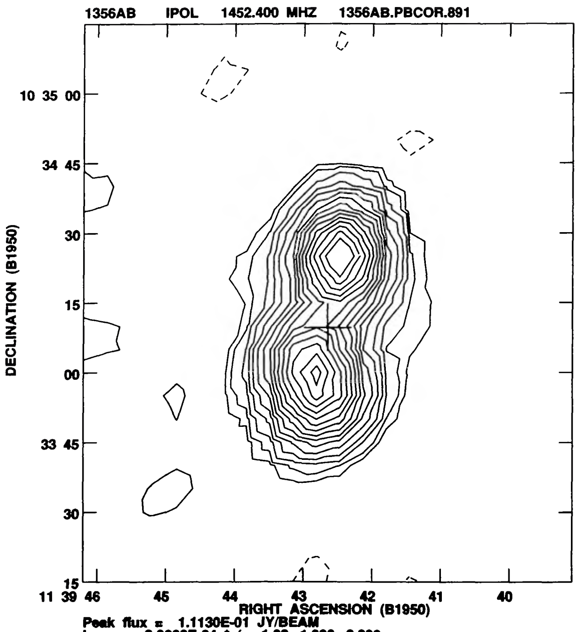
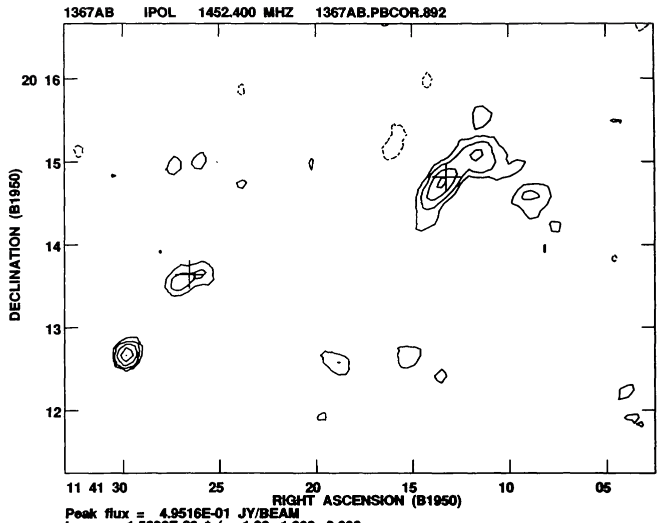


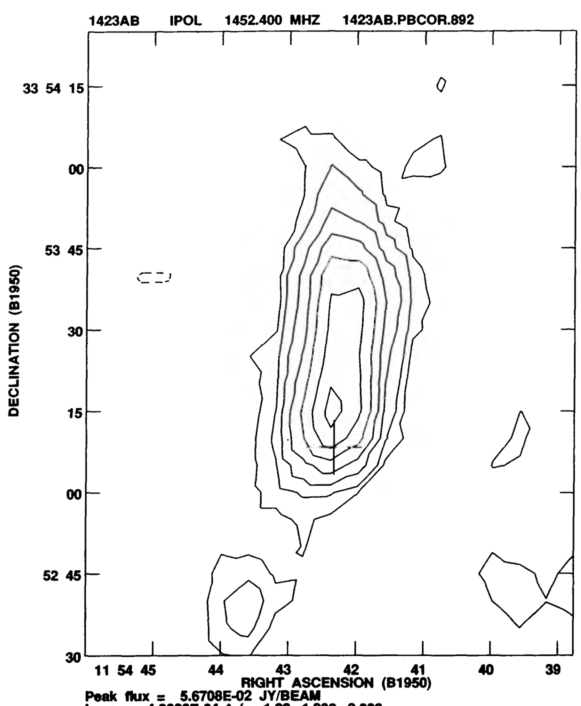
FIG. 1—*Continued*



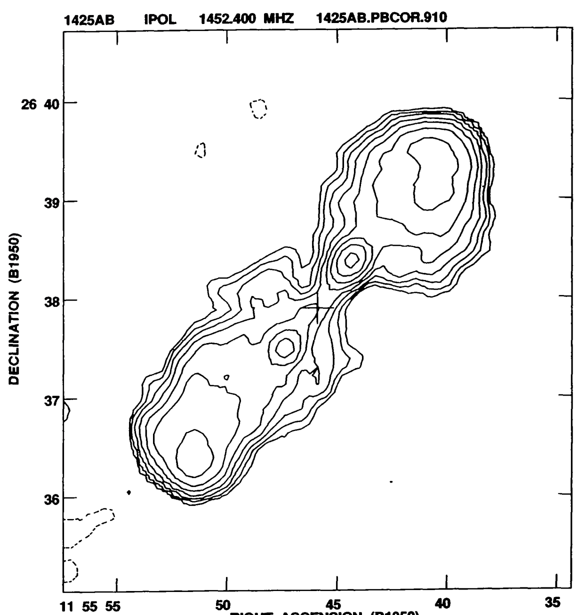
Peak flux = 1.1130E-01 JY/BEAM
Levs = 3.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)



Peak flux = 4.9516E-01 JY/BEAM
Levs = 1.5000E-03 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)



Peak flux = 5.6708E-02 JY/BEAM
Levs = 4.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 7.000, 11.00, 16.00, 22.00, 29.00, 37.00, 46.00, 56.00, 67.00, 79.00, 92.00, 106.0)



Peak flux = 7.4645E-02 JY/BEAM
Levs = 3.0000E-04 * (-1.00, 1.000, 2.000, 4.000, 8.000, 16.00, 32.00, 64.00, 128.0, 256.0, 512.0, 1024.)

FIG. 1—*Continued*

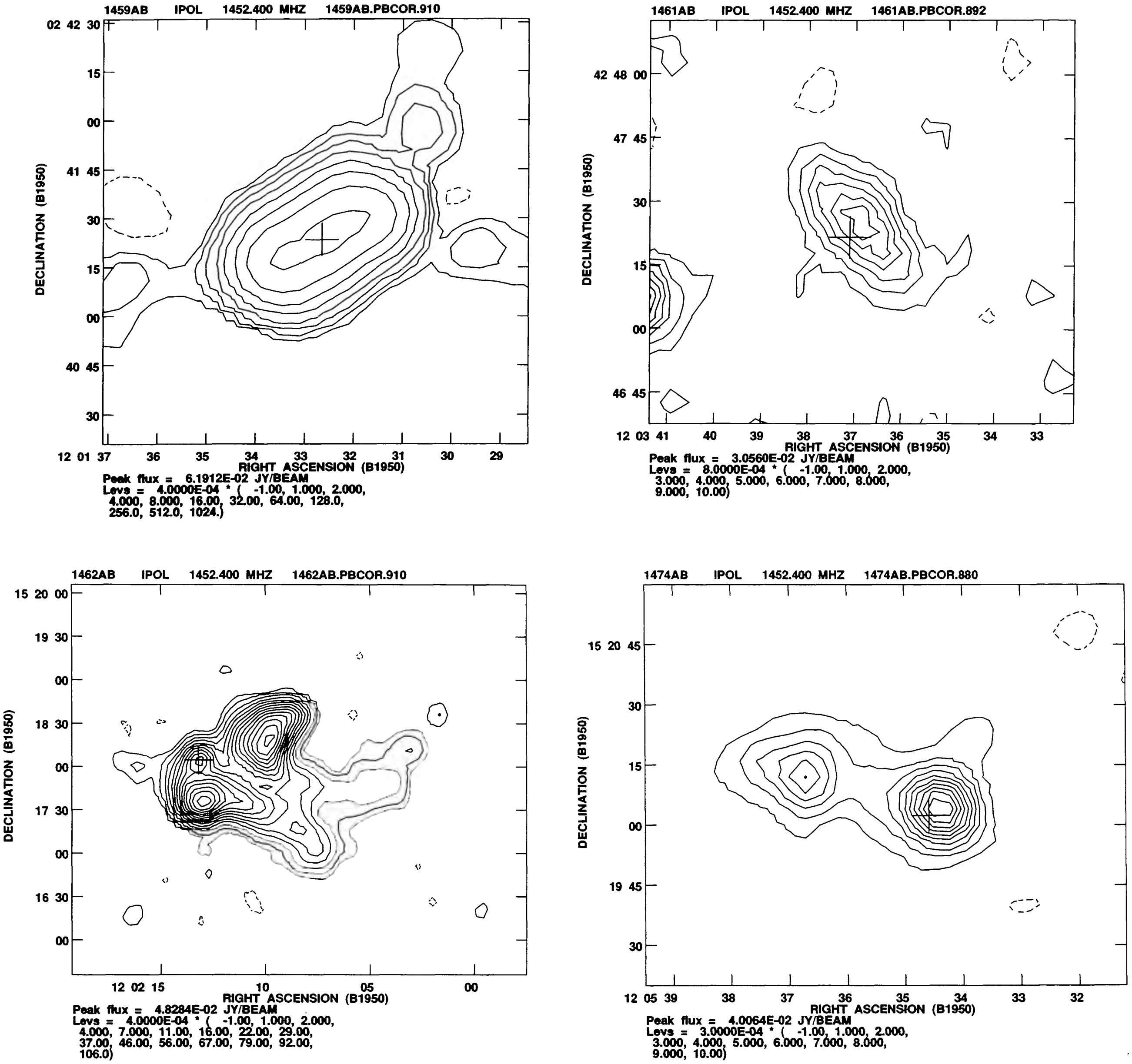


FIG. 1—*Continued*

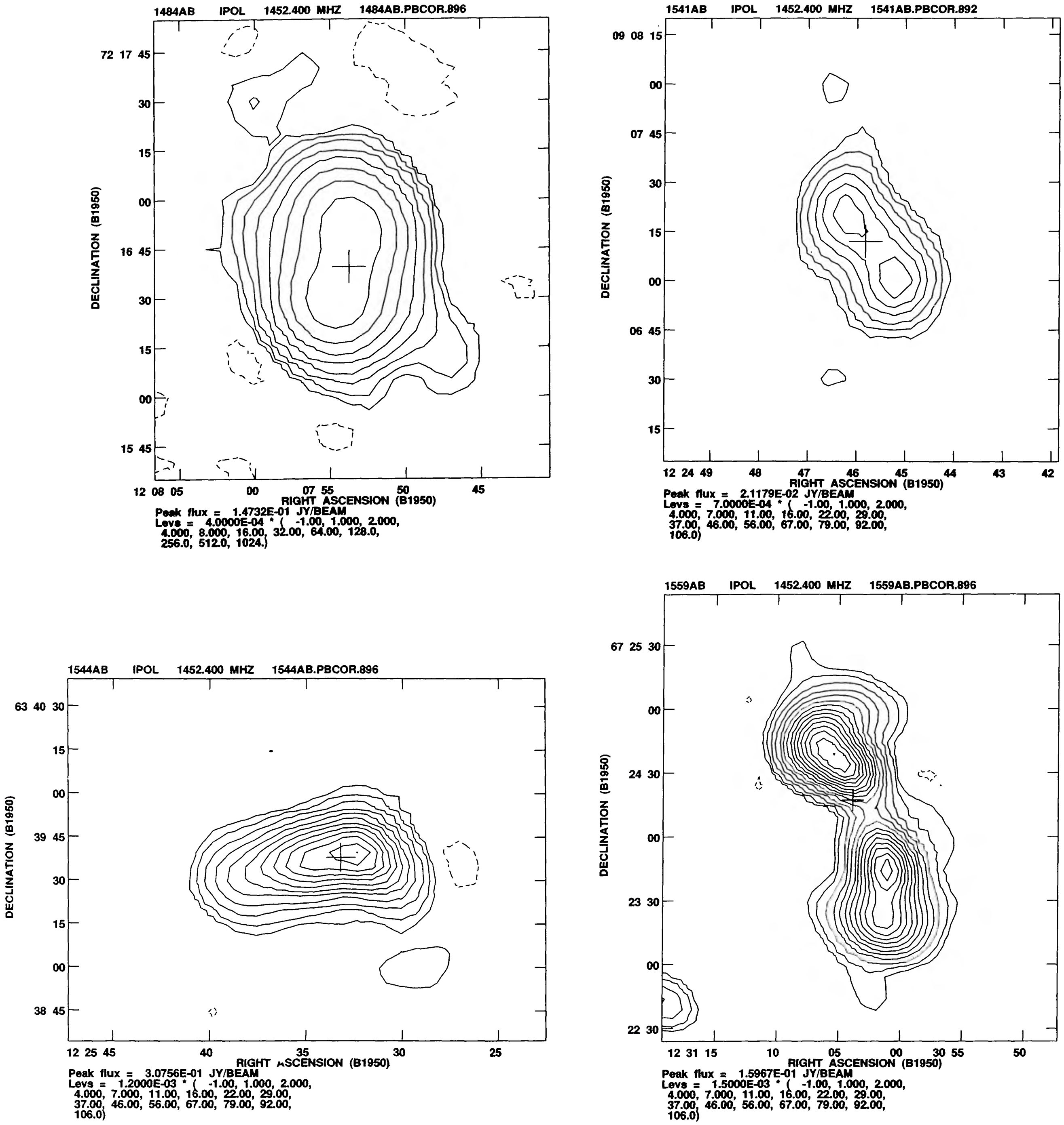


FIG. 1—*Continued*

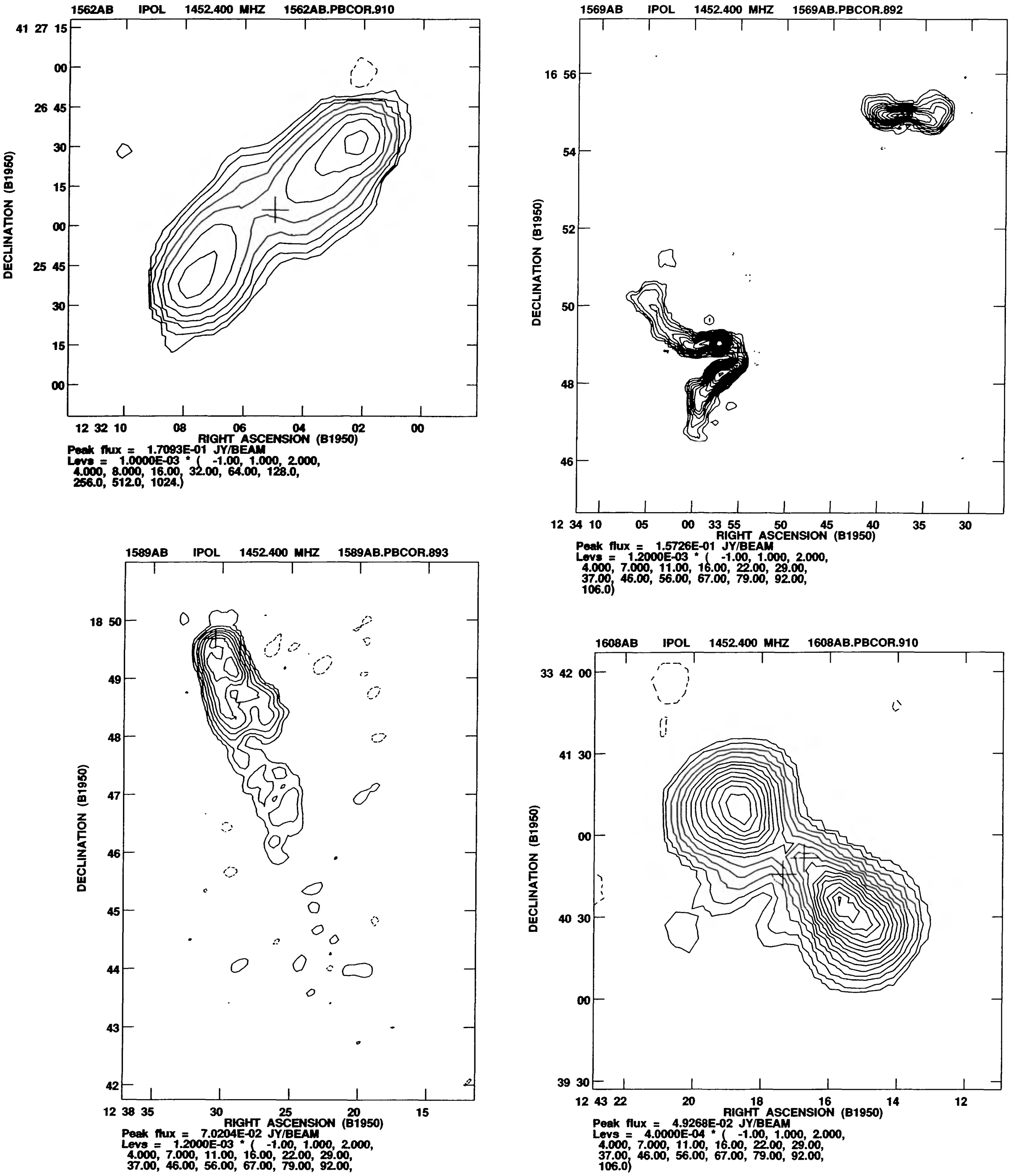


FIG. 1—*Continued*

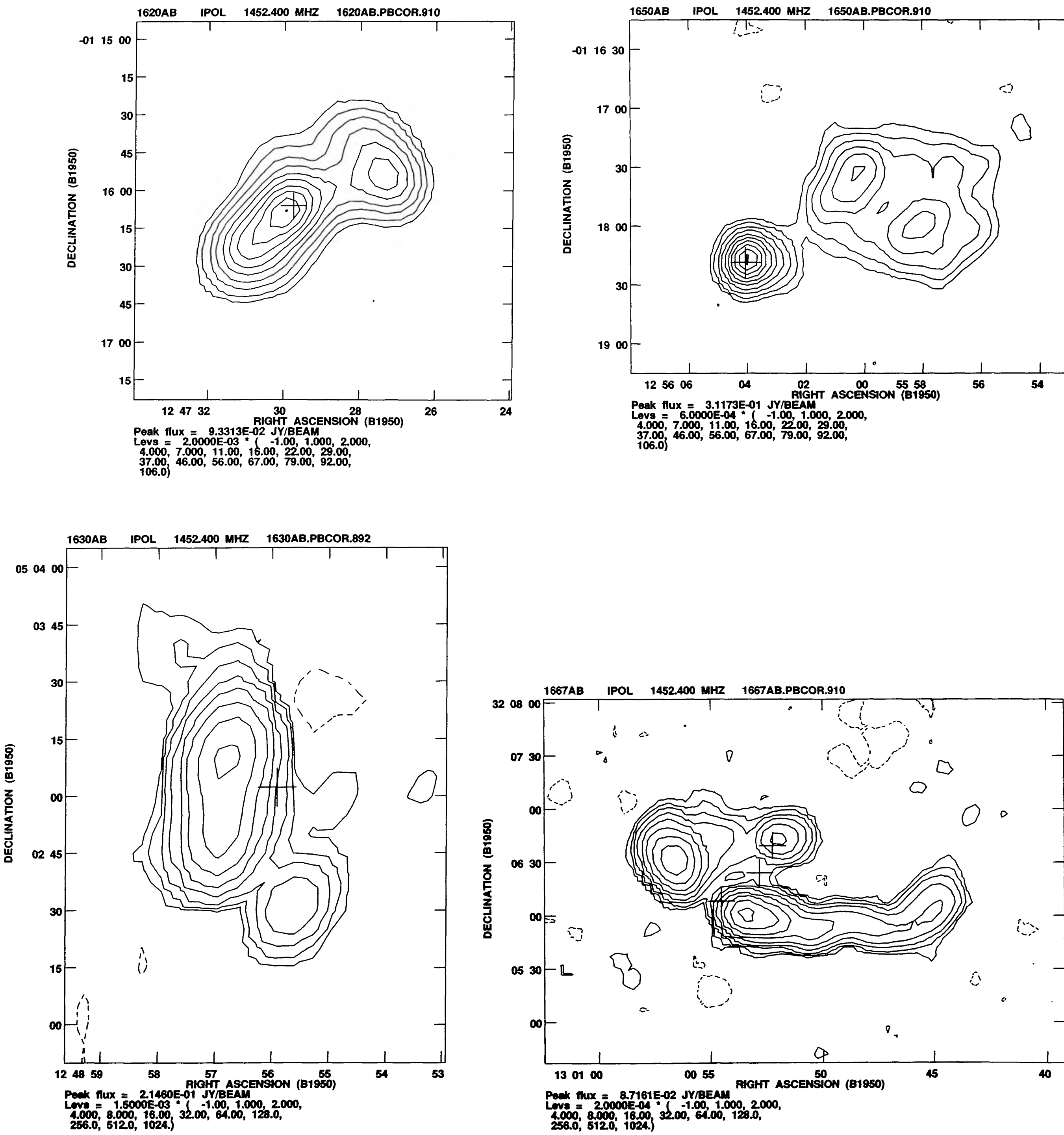


FIG. 1—*Continued*

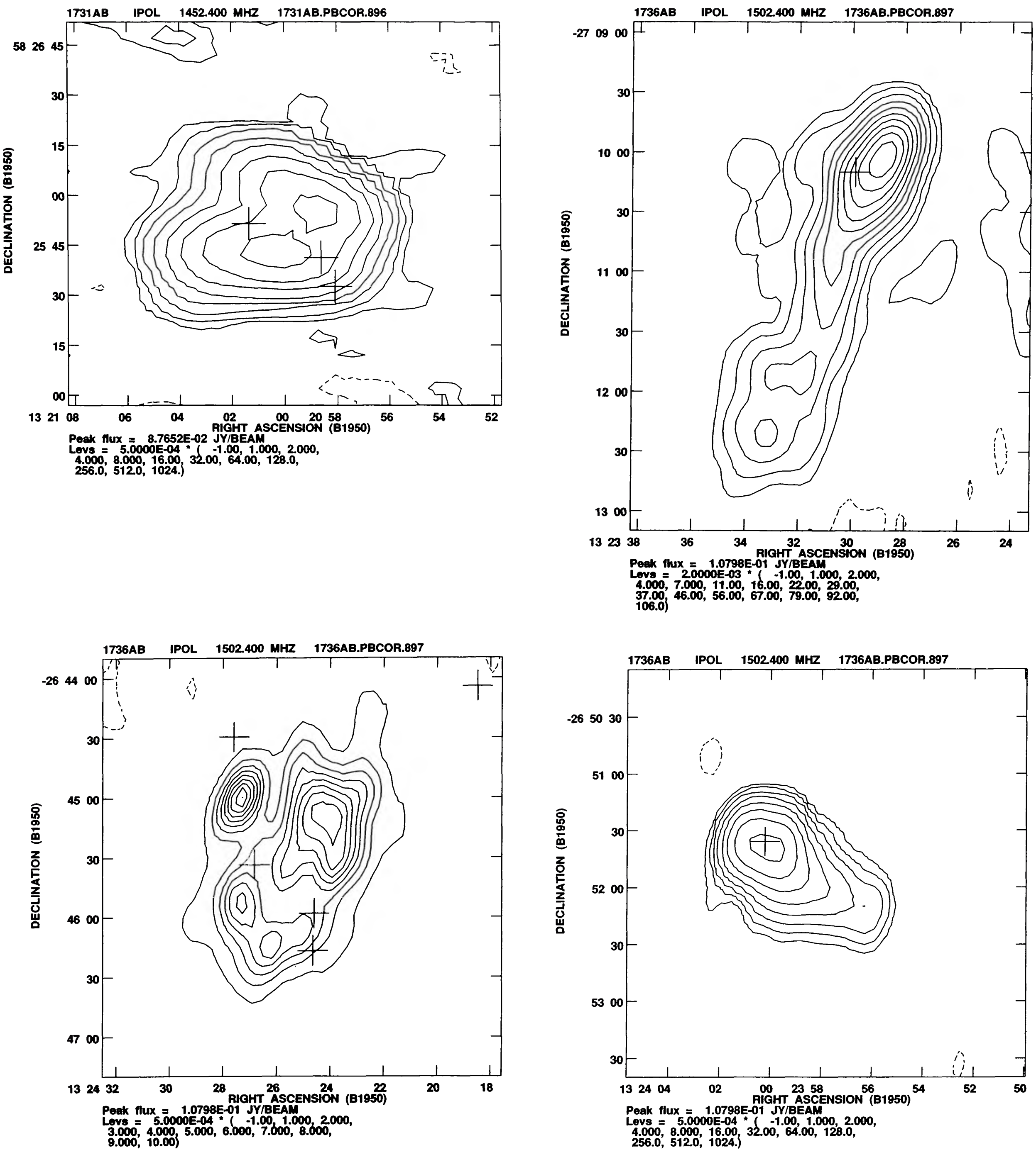


FIG. 1—*Continued*

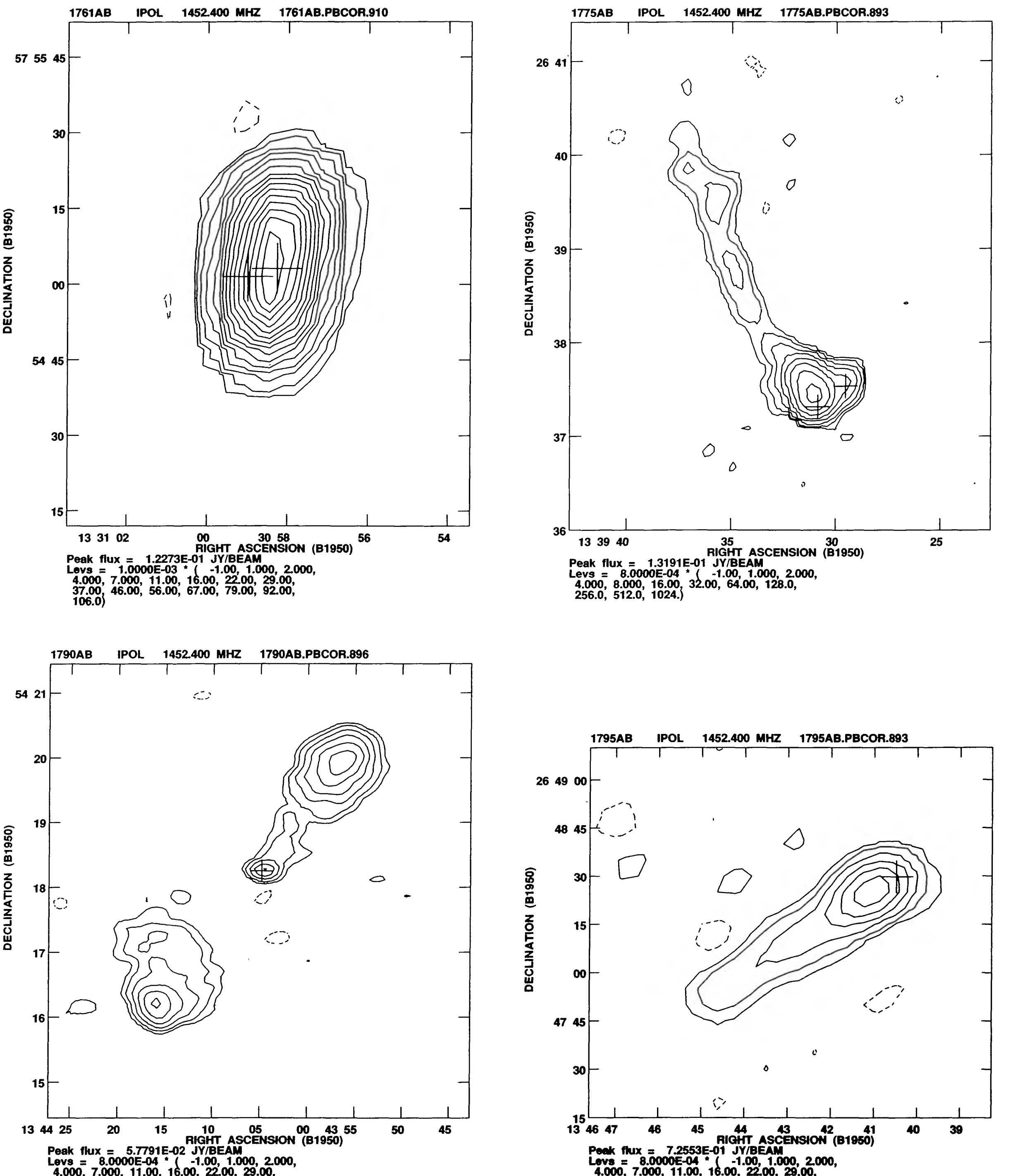
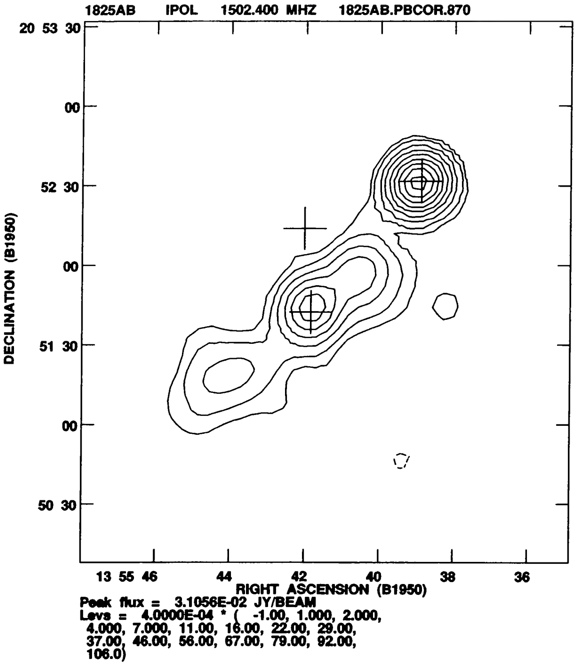
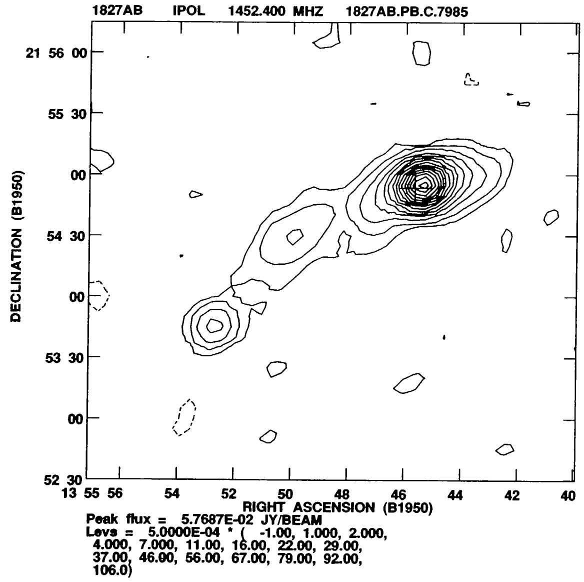
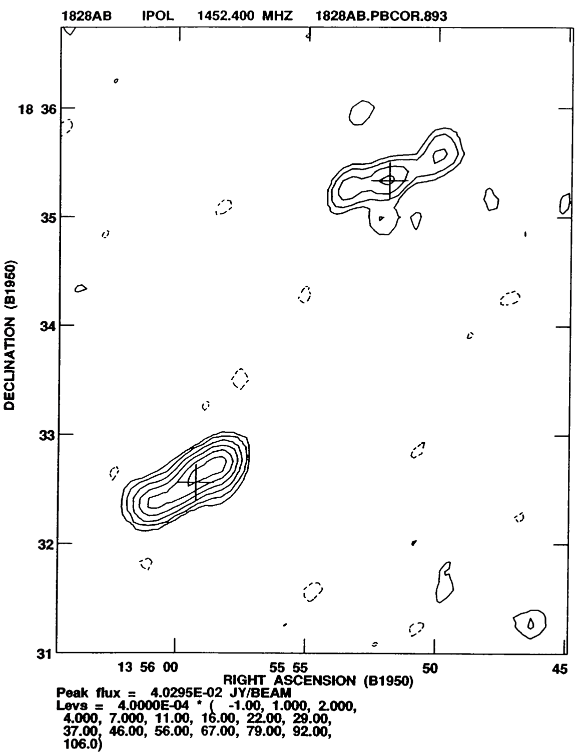


FIG. 1—*Continued*







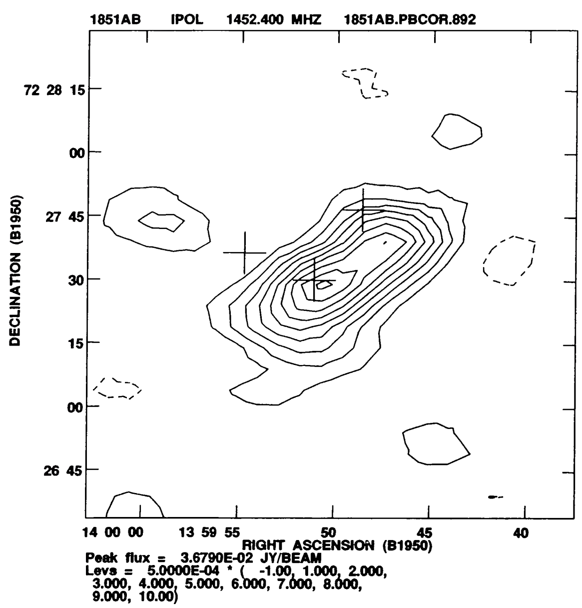


FIG. 1—*Continued*

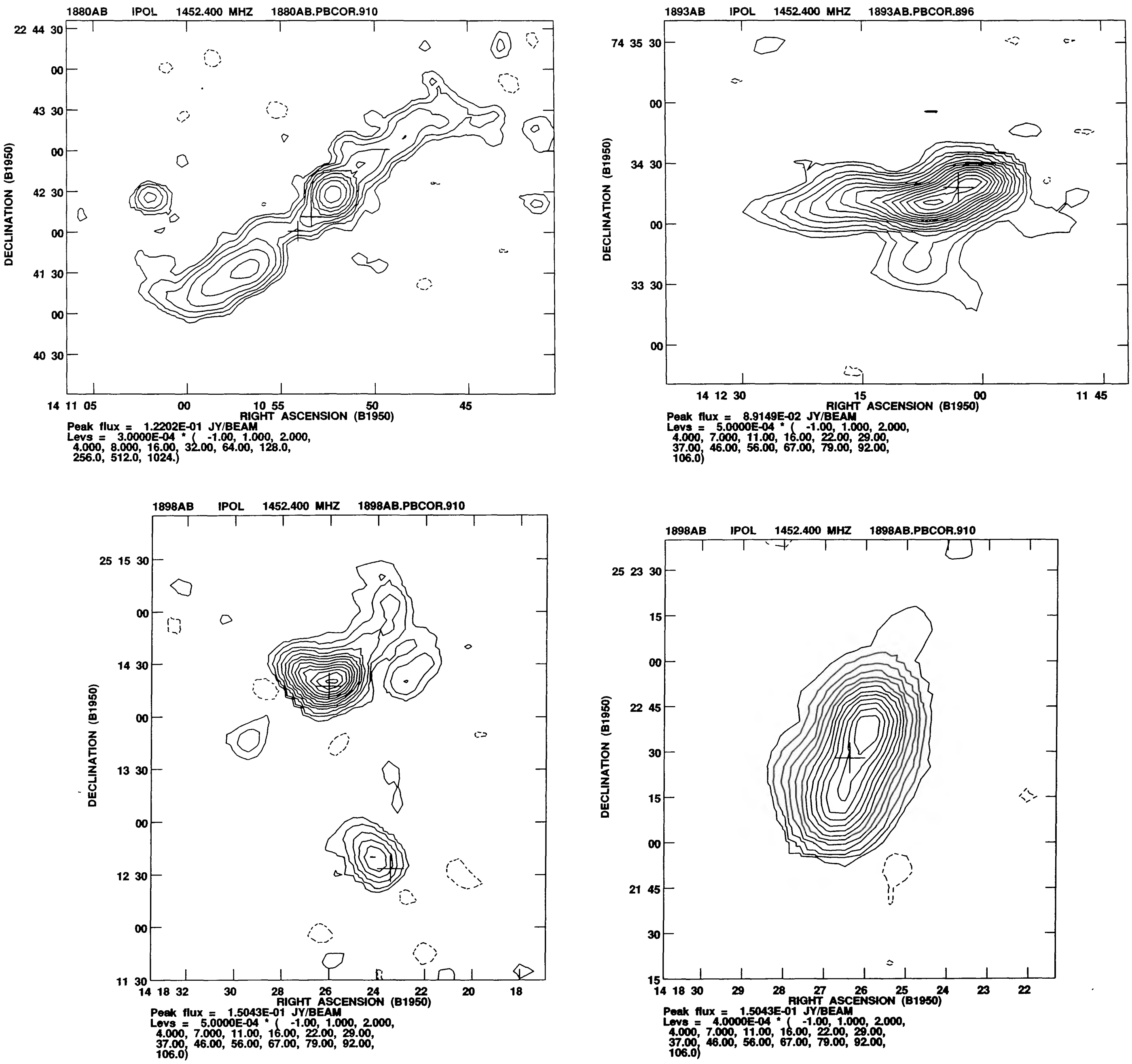


FIG. 1—*Continued*

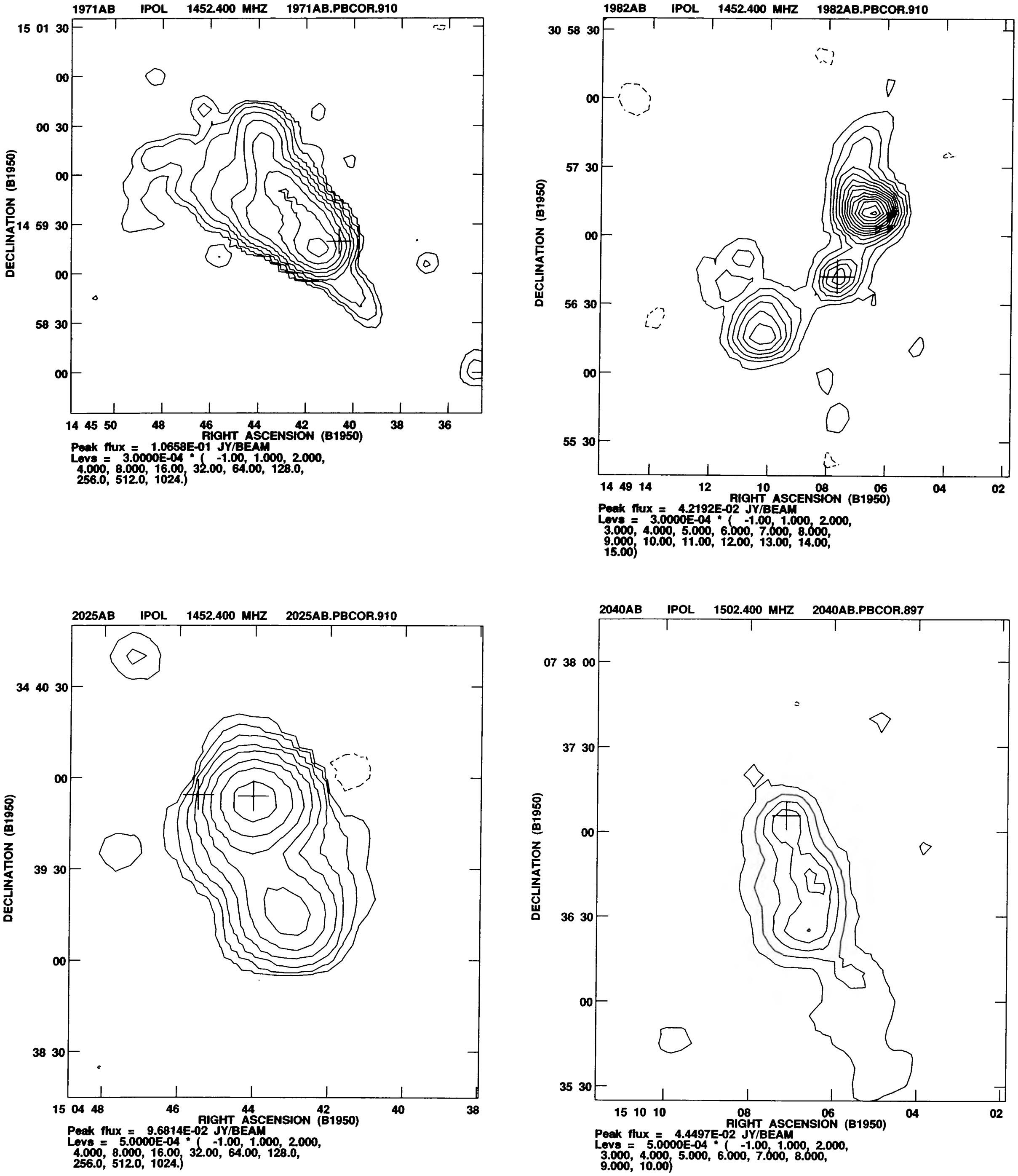
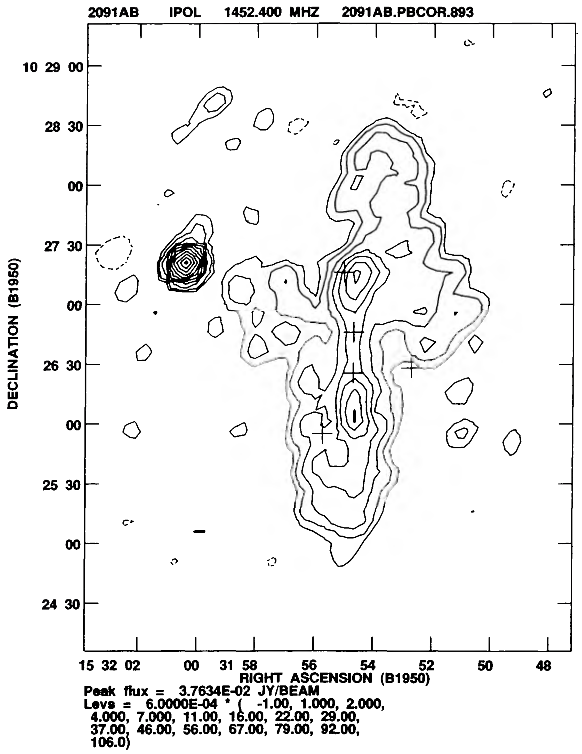
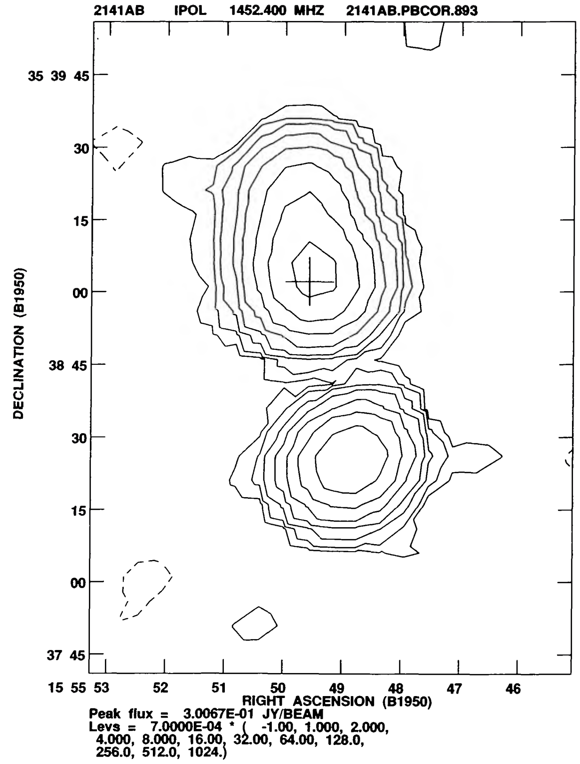
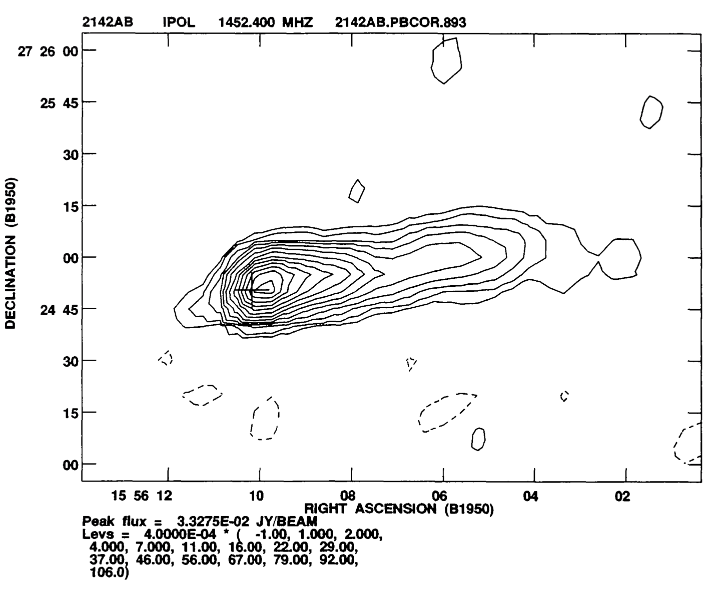


FIG. 1—*Continued*







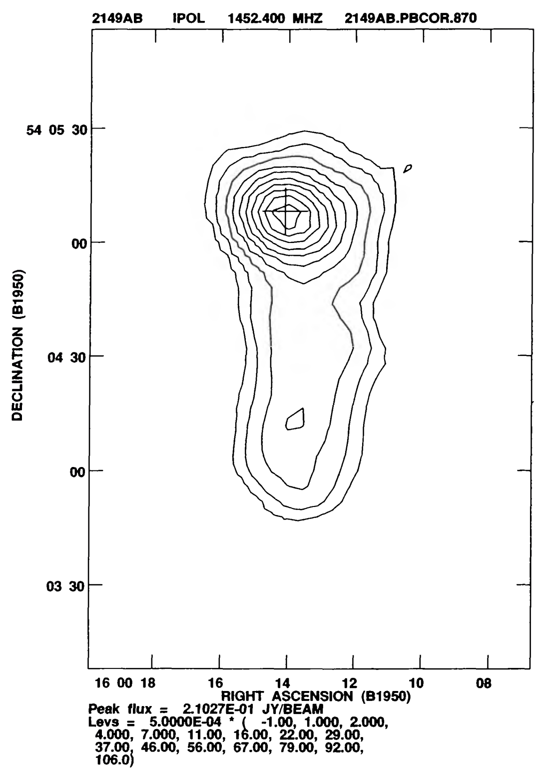


FIG. 1—*Continued*

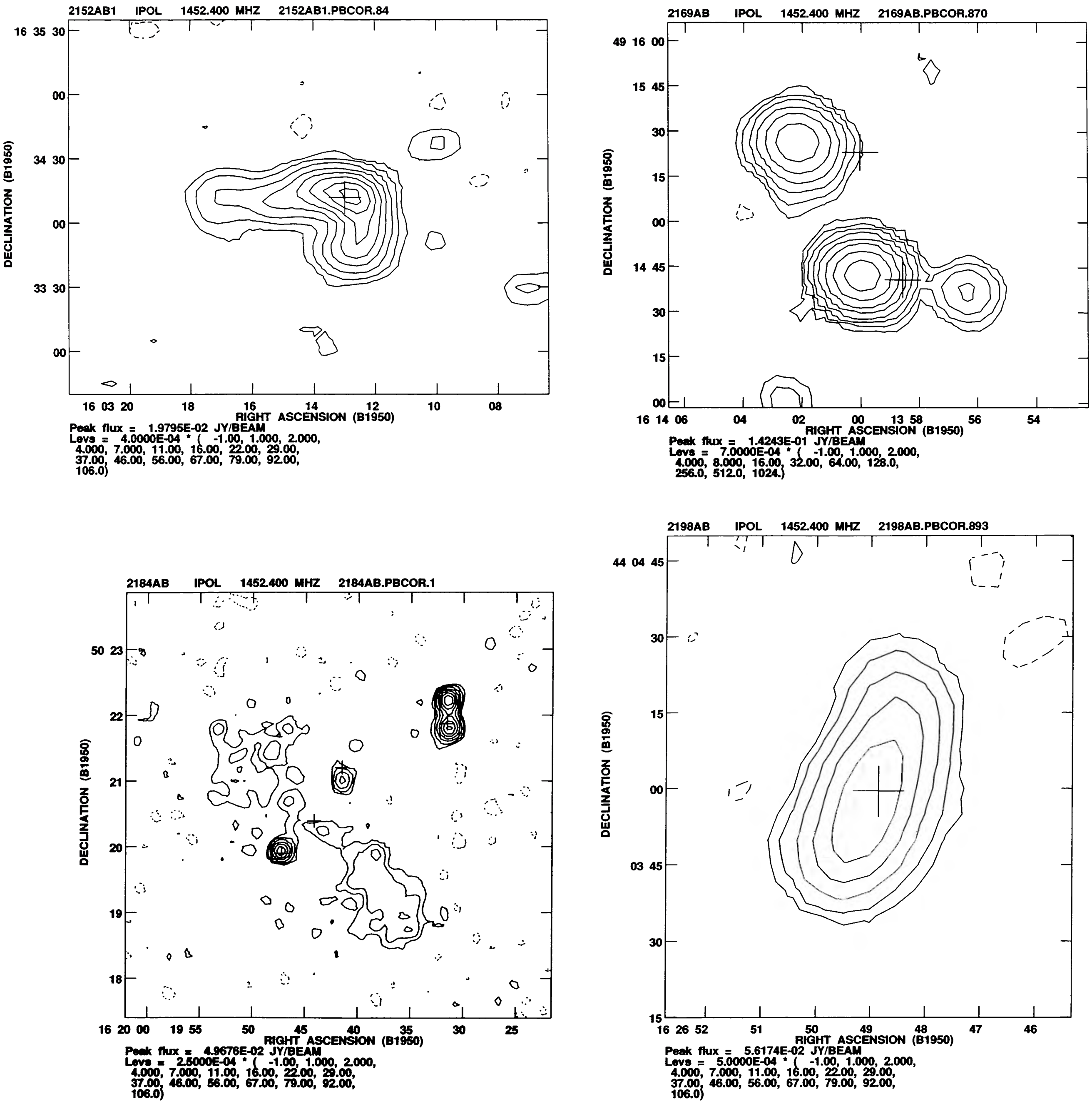


FIG. 1—*Continued*

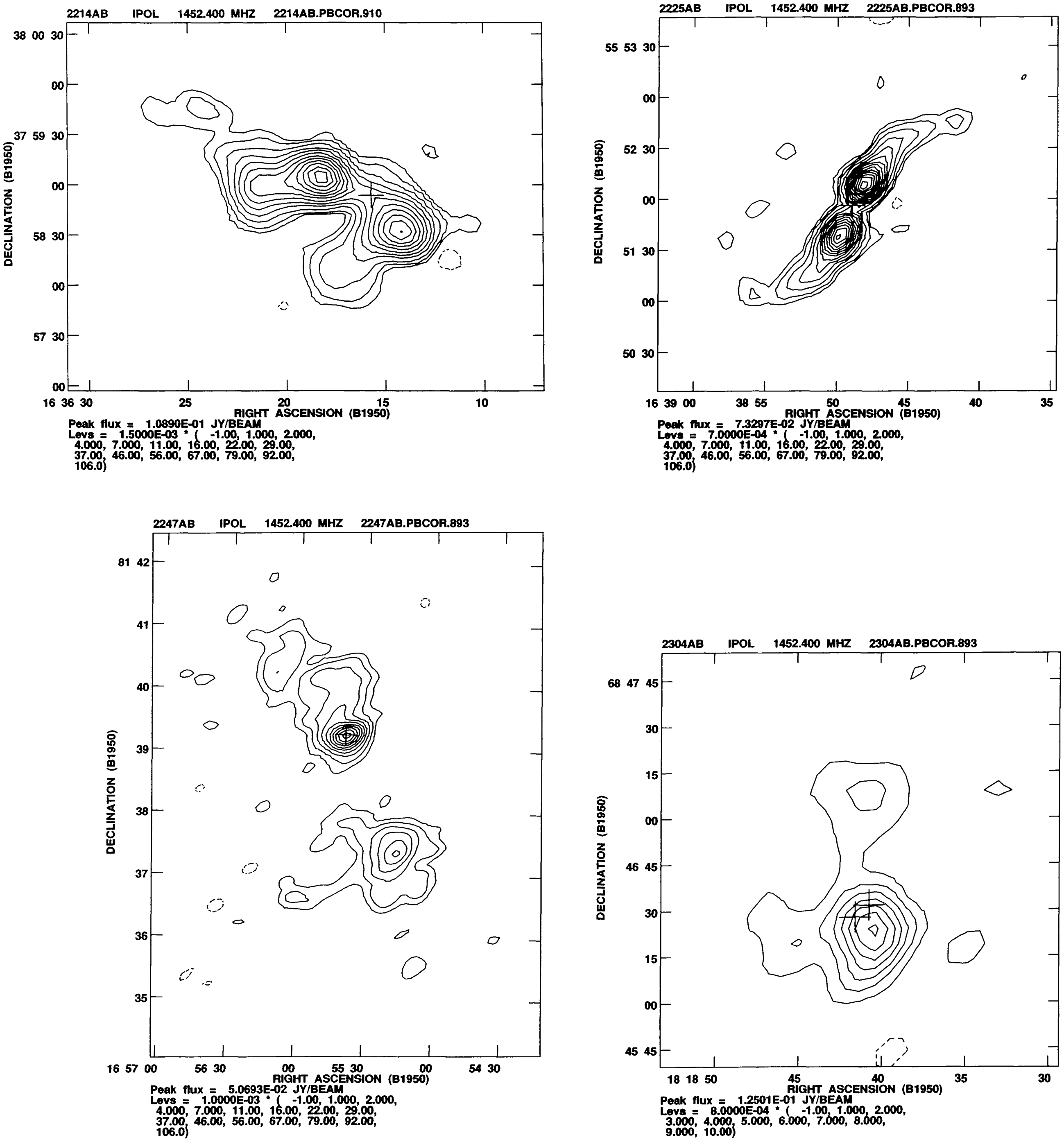


FIG. 1—*Continued*

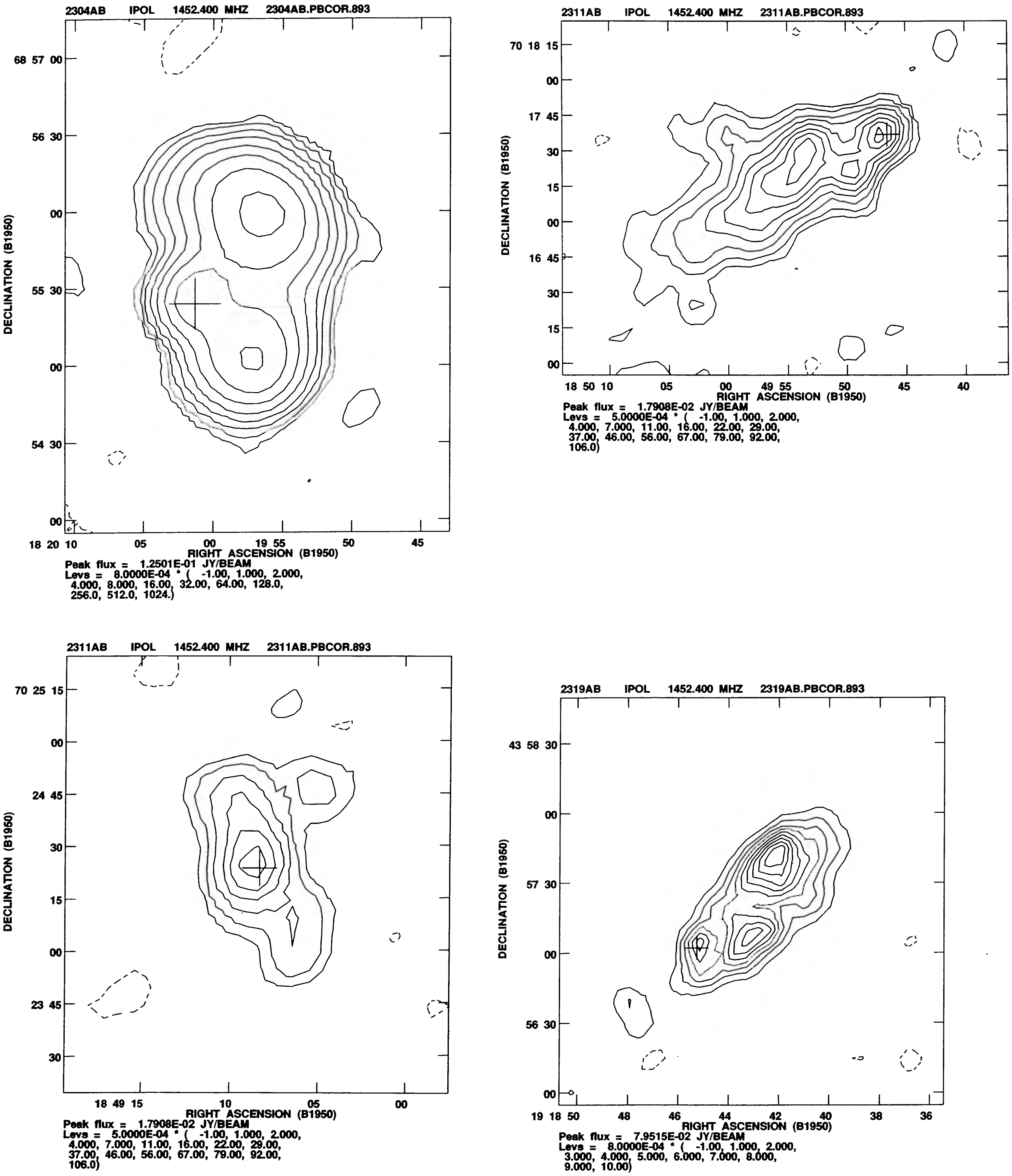


FIG. 1—*Continued*

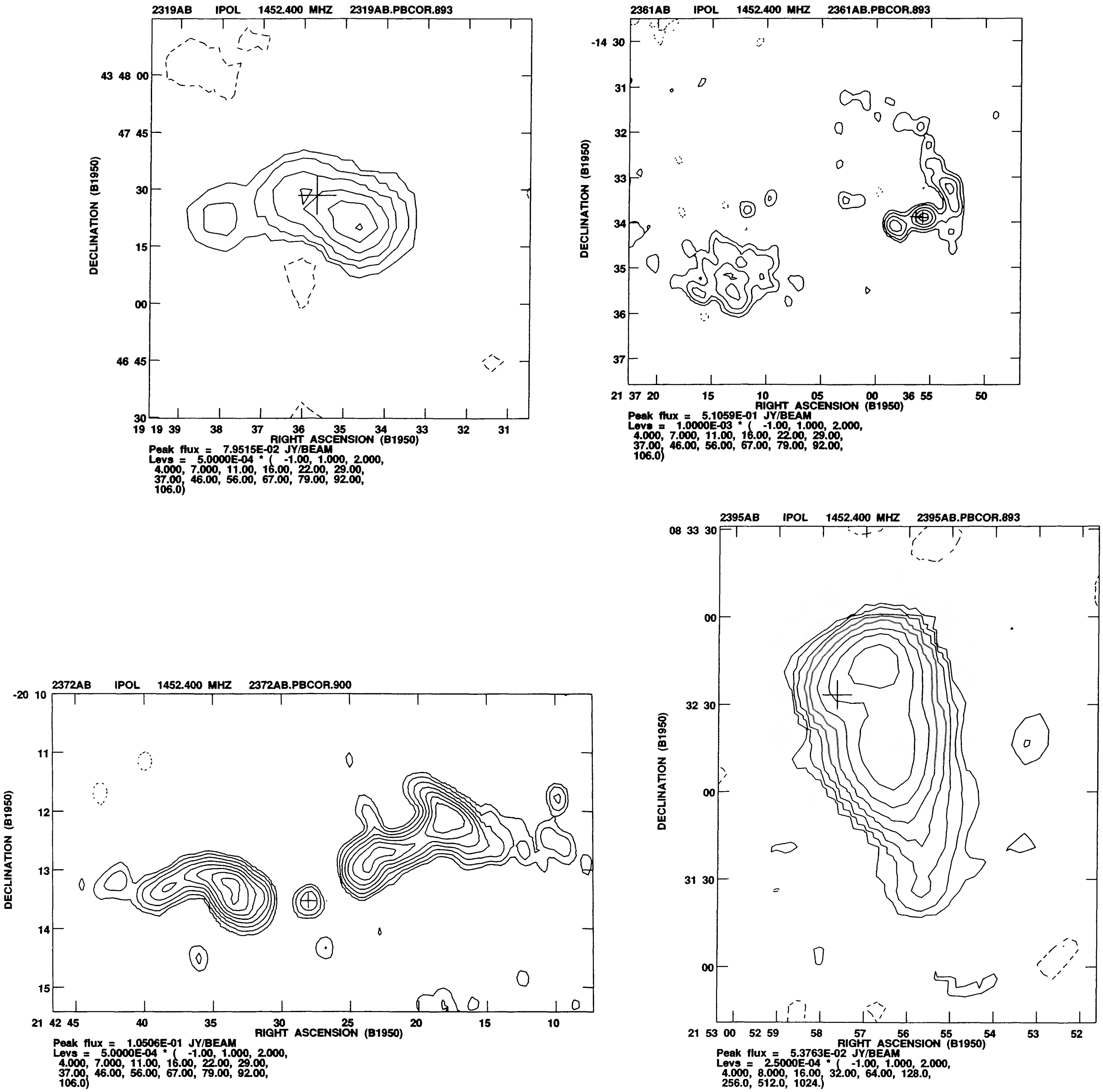


FIG. 1—*Continued*

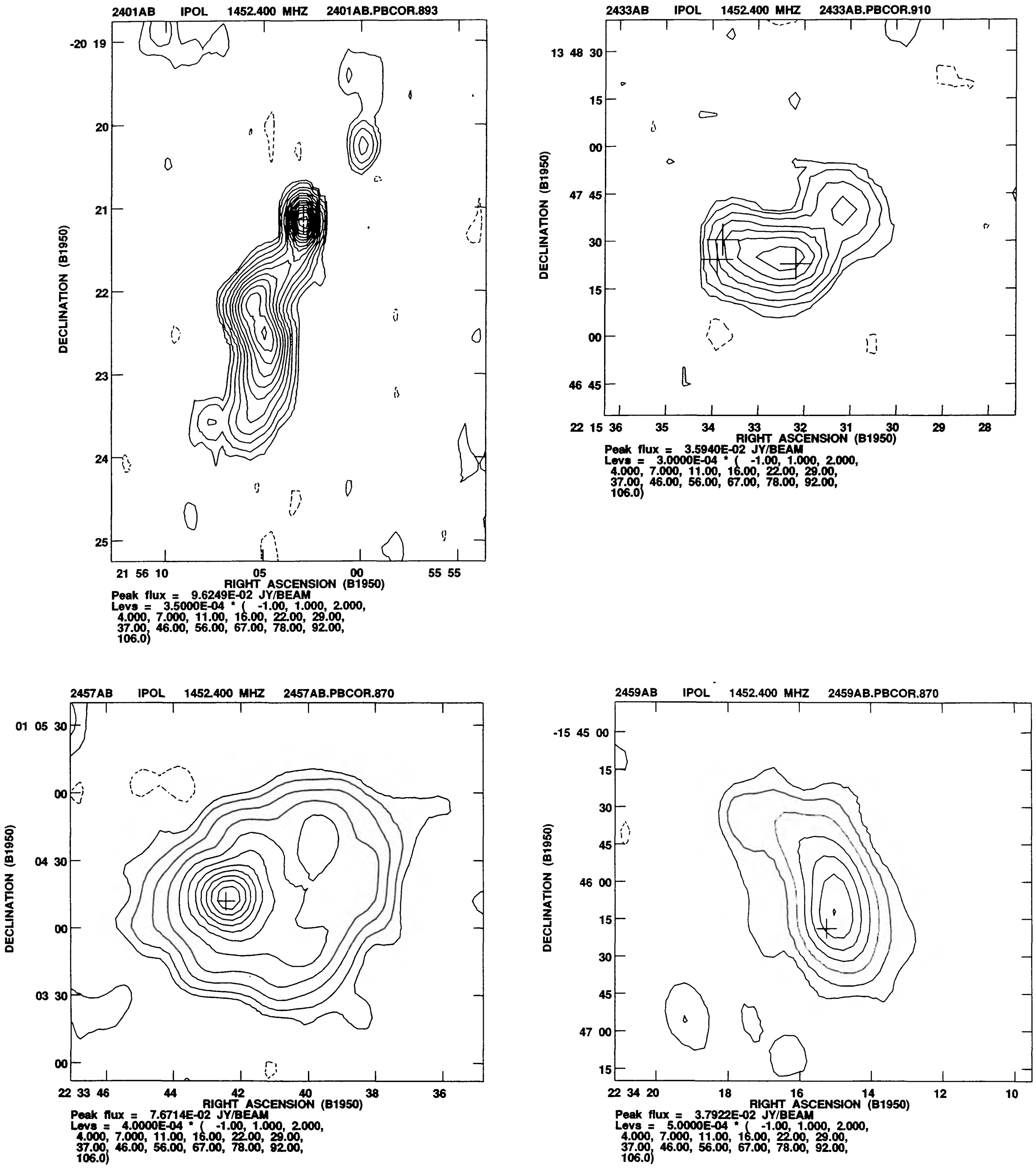


FIG. 1—*Continued*

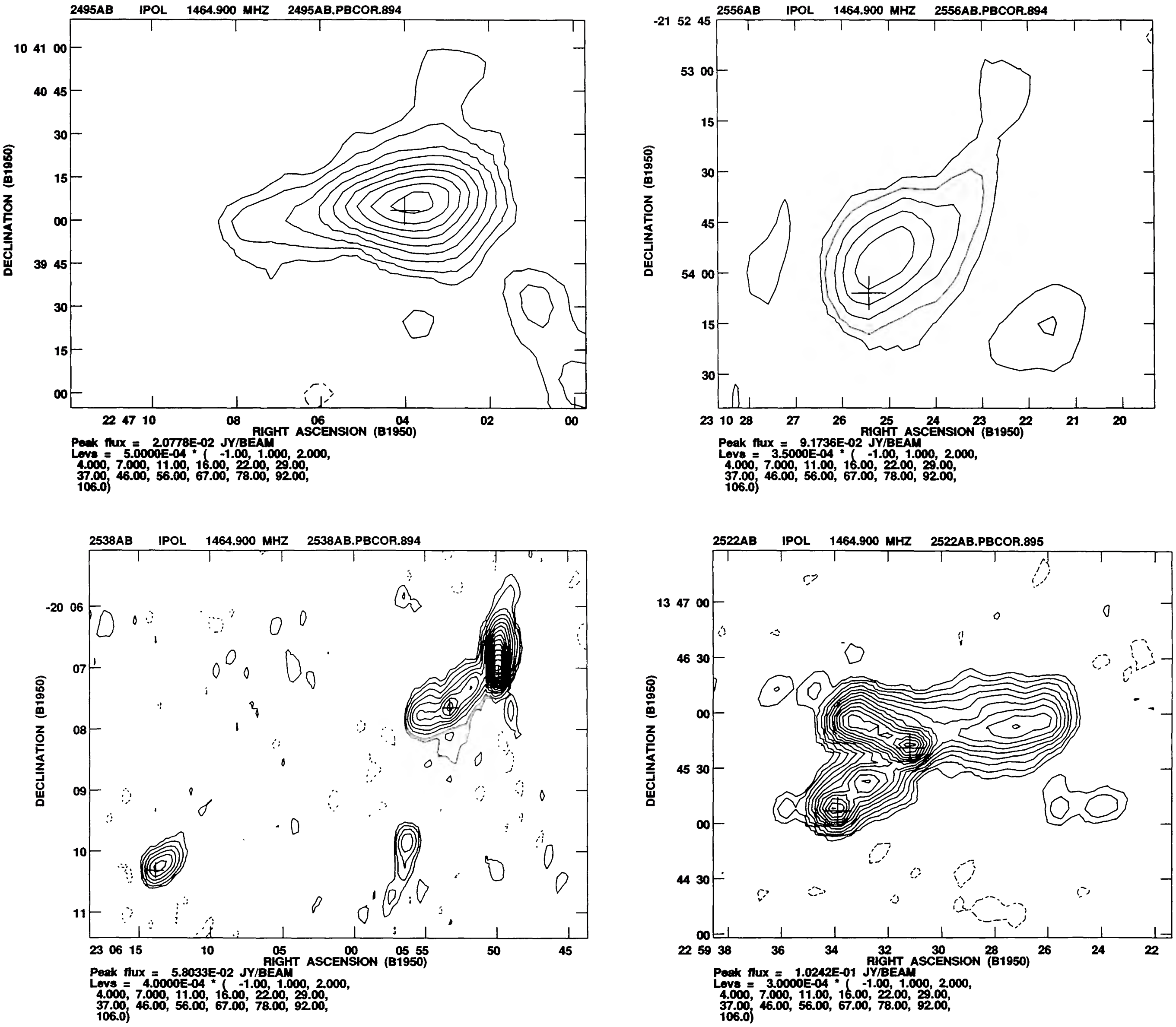


FIG. 1—*Continued*

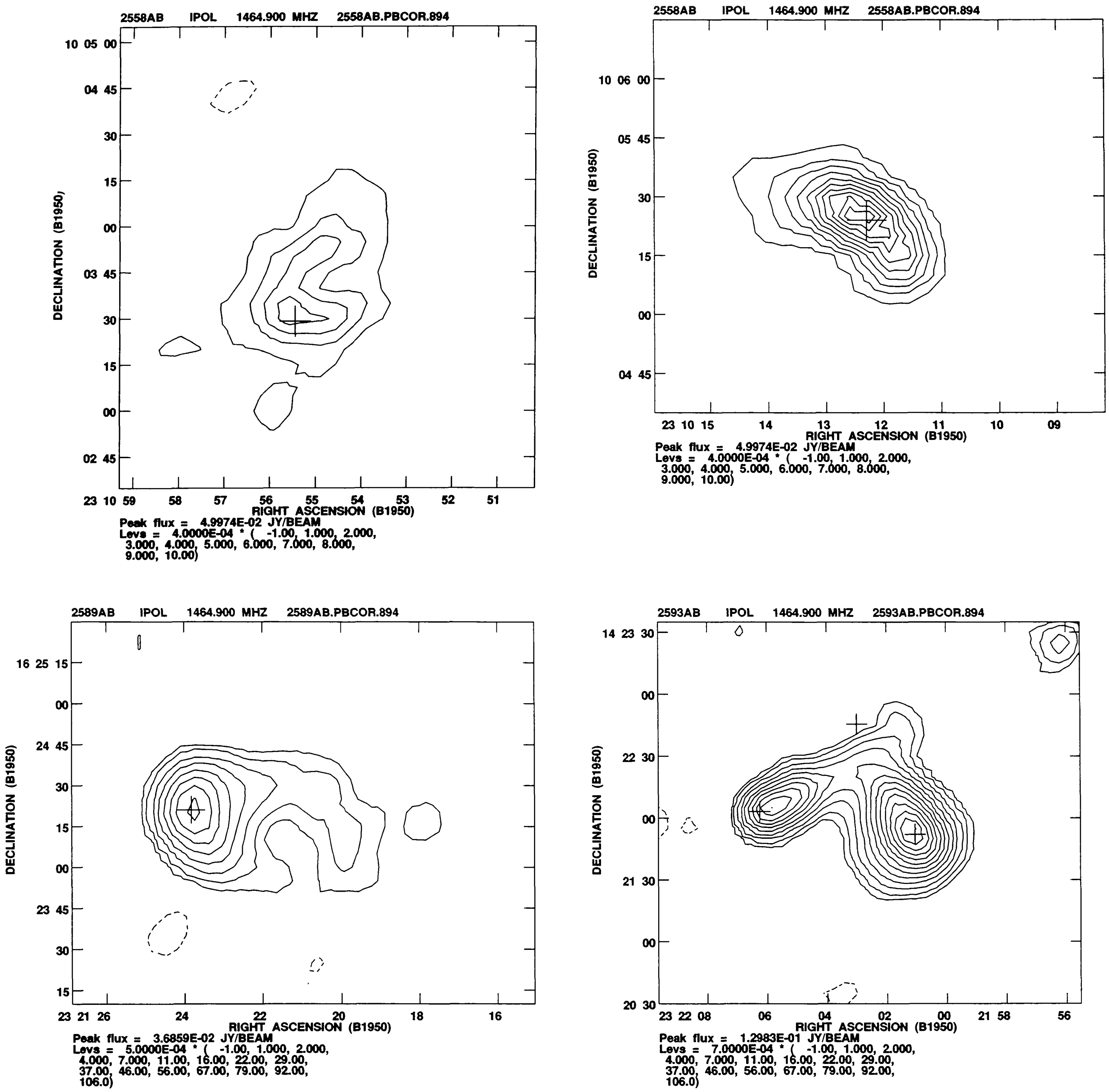


FIG. 1—*Continued*

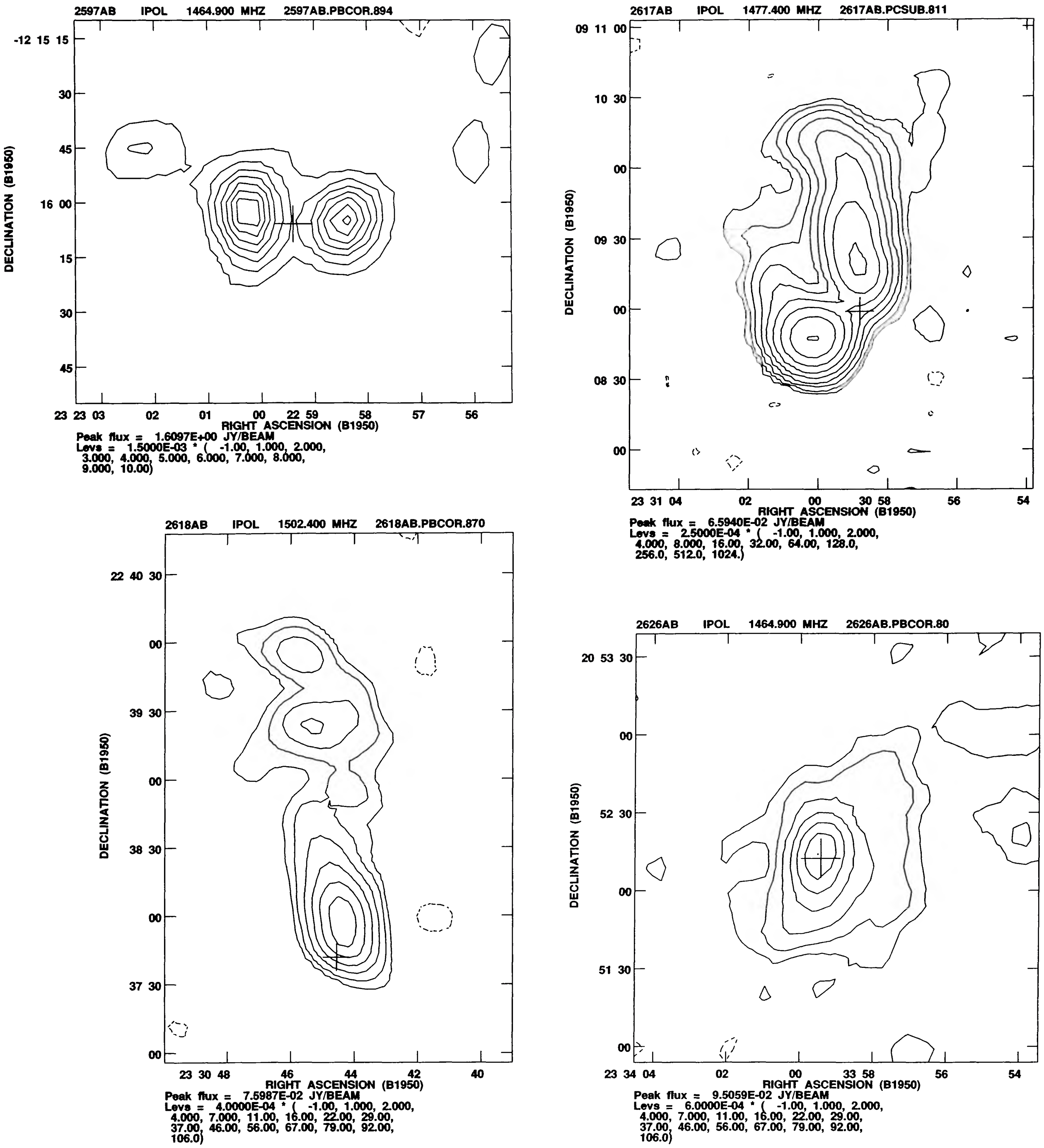


FIG. 1—*Continued*

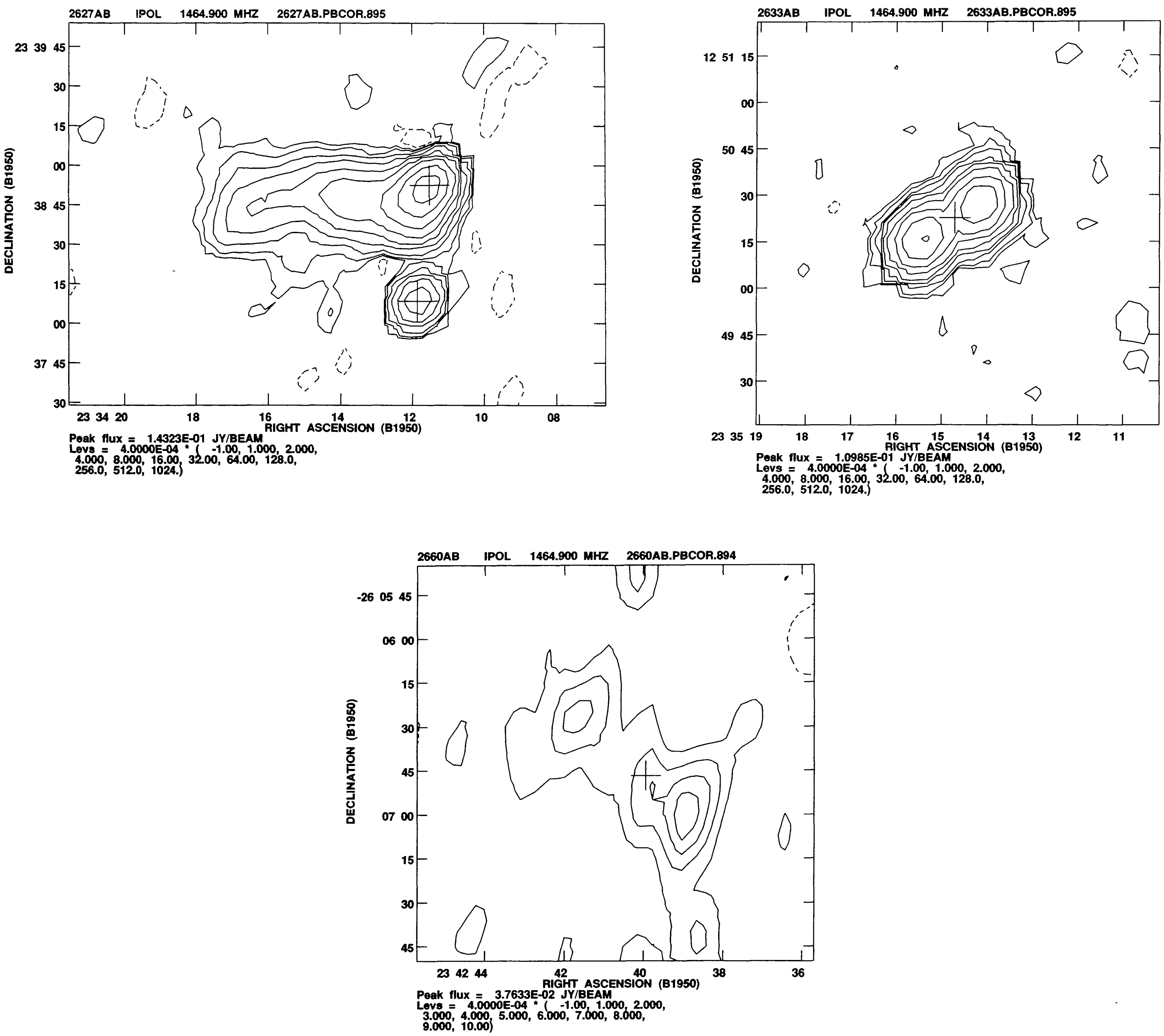


FIG. 1—*Continued*

TABLE 2

Radio Galaxy Model Fits

Abell Clu	R.A.(1950.0)	Dec. (1950)	Flux Den	Source Size
0044	00 27 11.32 (0.03)	11 47 32.1 (0.3)	12 (1)	8 6 pa=32
0077	00 37 48.14 (0.02)	29 16 43.8 (0.3)	12 (1)	< 5
0114	00 51 12.27 (0.02)	-22 00 16.8 (0.3)	29 (2)	< 3
0126	00 57 24.37 (0.02)	-14 30 49.6 (0.3)	15 (1)	4 3 pa=72
0152	01 07 24.36 (0.02)	13 42 44.5 (0.3)	206 (1)	15 10 pa=24
0168	01 12 41.99 (0.02)	-00 03 01.7 (0.3)	49 (3)	5 3 pa=123
0276	01 54 03.01 (0.03)	41 05 53.3 (0.3)	42 (2)	4 2 pa=115
0281	01 54 36.61 (0.02)	-06 07 45.1 (0.3)	10 (1)	4 3 pa=142
0292	01 59 33.62 (0.02)	18 49 36.8 (0.3)	22 (1)	6 3 pa=29
0419	03 06 03.84 (0.02)	-23 45 15.9 (0.3)	108 (5)	17 11 pa=108
0423-A	03 08 54.11 (0.02)	-12 19 00.5 (0.3)	19 (1)	8 3 pa=122
0436	03 23 53.17 (0.02)	09 00 37.6 (0.3)	213 (11)	9 6 pa=40
0478-A	04 10 40.60 (0.02)	10 20 19.6 (0.3)	31 (2)	6 4 pa=106
0500-A	04 36 32.10 (0.02)	-22 25 22.6 (0.3)	21 (1)	5 2 pa=21
-B	04 36 06.07 (0.04)	-22 08 48.7 (0.5)	13 (1)	18 9 pa=55
-C	04 37 04.22 (0.03)	-21 59 40.7 (0.4)	12 (1)	10 2 pa=27
0509	04 45 16.94 (0.04)	02 19 47.0 (0.4)	20 (1)	16 11 pa=36
0514-F	04 45 02.95 (0.02)	-20 19 20.8 (0.3)	270 (14)	17 5 pa=152
0564	06 54 41.12 (0.08)	70 06 00.1 (0.3)	60 (3)	23 6 pa=152
0584	07 25 34.62 (0.02)	26 44 14.4 (0.3)	498 (25)	4 3 pa=49
0628-B	08 06 11.61 (0.02)	35 27 55.7 (0.3)	26 (1)	< 7
0680-B	08 32 26.19 (0.04)	37 02 04.3 (0.3)	21 (1)	5 3 pa=104
0693	08 37 14.86 (0.02)	01 15 06.1 (0.3)	547 (27)	6 4 pa=147
0725	08 57 05.99 (0.05)	62 49 08.3 (0.3)	199 (10)	23 14 pa=71
0739	09 01 10.05 (0.03)	47 27 39.3 (0.3)	300 (15)	10 2 pa=126
0756	09 08 53.49 (0.03)	48 43 05.4 (0.3)	194 (10)	9 5 pa=38
0912	09 59 19.16 (0.08)	00 07 01.4 (0.5)	28 (2)	20 5 pa=104
0930-A	10 04 53.80 (0.02)	-05 26 47.7 (0.3)	13 (1)	< 6
0963-A	10 14 16.49 (0.02)	39 16 24.1 (0.3)	1250 (62)	5 2 pa=158
1020-A	10 24 21.10 (0.02)	10 37 31.2 (0.3)	14 (1)	12 5 pa=84
1024	10 25 50.64 (0.02)	04 00 08.5 (0.3)	7 (1)	6 3 pa=7
1060-A	10 34 07.90 (0.03)	-27 08 01.6 (0.4)	11 (1)	< 10
1142-A	10 57 30.35 (0.03)	10 59 10.7 (0.3)	17 (1)	8 3 pa=126
1190	11 08 57.44 (0.02)	41 05 35.6 (0.3)	23 (1)	6 4 pa=44
1213-A	11 13 41.62 (0.02)	29 31 30.9 (0.3)	72 (4)	5 3 pa=149
-B	11 13 47.36 (0.03)	29 33 32.5 (0.3)	22 (1)	8 6 pa=69
1275	11 27 15.92 (0.02)	37 05 50.8 (0.3)	31 (2)	5 2 pa=2
1361	11 41 00.53 (0.02)	46 37 59.3 (0.3)	814 (41)	11 3 pa=35
1363-A	11 40 37.90 (0.02)	44 05 23.6 (0.3)	10 (1)	16 4 pa=77
1367-A	11 39 48.60 (0.07)	20 23 48.0 (0.5)	16 (1)	pa=97
1400	11 48 45.21 (0.04)	55 25 43.8 (0.3)	36 (2)	11 4 pa=172
1456	12 00 48.07 (0.02)	04 30 59.0 (0.3)	1114 (56)	< 0.5
1457	12 02 04.40 (0.03)	52 45 23.0 (0.3)	287 (15)	5 2 pa=138
1474-B	12 05 39.68 (0.02)	15 06 07.1 (0.3)	58 (3)	12 3 pa=134
1526	12 19 34.22 (0.02)	14 01 33.4 (0.3)	41 (2)	4 3 pa=158
1597	12 38 23.13 (0.07)	72 35 37.0 (0.3)	207 (10)	11 2 pa=159
1638	12 52 04.85 (0.02)	19 12 17.0 (0.3)	74 (4)	3 3 pa=45
1644-A	12 54 32.77 (0.02)	-17 08 22.0 (0.3)	104 (5)	7 3 pa=149
-B	12 55 10.36 (0.02)	-17 00 11.1 (0.3)	62 (3)	8 <8 pa=133
1668	13 01 19.20 (0.02)	19 32 23.3 (0.3)	74 (4)	7 4 pa=128
1681	13 03 03.22 (0.07)	72 13 43.7 (0.3)	242 (12)	9 4 pa=110
1736-B	13 23 57.68 (0.03)	-27 10 41.0 (0.3)	80 (4)	10 7 pa=77
-H	13 25 13.59 (0.06)	-27 05 35.8 (0.6)	11 (1)	16 7 pa=169
1749	13 27 06.69 (0.03)	37 52 51.8 (0.3)	13 (1)	4 3 pa=109
1795-A	13 46 34.16 (0.02)	26 50 24.9 (0.3)	883 (44)	8 3 pa=17
1828-A	13 55 18.33 (0.02)	18 30 52.6 (0.3)	29 (2)	13 5 pa=65
-D	13 56 14.19 (0.03)	18 39 38.3 (0.3)	14 (1)	11 4 pa=35
1898-D	14 18 36.06 (0.02)	25 26 46.9 (0.3)	18 (1)	16 8 pa=26
2025-C	15 06 05.19 (0.03)	34 34 50.1 (0.3)	109 (6)	12 4 pa=102
2026	15 06 20.08 (0.02)	-00 00 23.8 (0.3)	19 (1)	5 5 pa=162
2028	15 07 00.97 (0.02)	07 44 46.8 (0.3)	35 (2)	4 3 pa=47
2040-B	15 10 45.63 (0.02)	07 24 41.6 (0.3)	46 (2)	9 2 pa=140
2063-A	15 20 39.35 (0.02)	08 47 11.2 (0.3)	13 (1)	13 5 pa=32
-B	15 21 46.40 (0.02)	08 43 18.2 (0.3)	16 (1)	13 7 pa=120
2198-A	16 26 29.69 (0.03)	43 48 31.5 (0.4)	12 (1)	<9
2363	21 38 44.42 (0.02)	-08 30 14.4 (0.3)	264 (13)	4 3 pa=36
2366	21 39 43.37 (0.03)	-06 57 36.6 (0.5)	315 (16)	34 11 pa=165
2390	21 51 14.22 (0.02)	17 27 32.8 (0.3)	203 (10)	3 3 pa=104
2396	21 53 16.00 (0.02)	12 17 14.0 (0.3)	411 (21)	19 8 pa=179
2401-A	21 55 36.09 (0.02)	-20 20 34.0 (0.3)	31 (2)	13 4 pa=137
2412	22 01 15.72 (0.04)	-21 41 25.7 (0.3)	230 (12)	14 4 pa=144
2420	22 07 38.09 (0.03)	-12 25 01.7 (0.3)	17 (1)	11 4 pa=132
2457-B	22 34 13.59 (0.02)	01 21 09.0 (0.3)	25 (1)	13 5 pa=68
2495-B	22 47 49.81 (0.03)	10 38 18.0 (0.3)	14 (1)	5 4 pa=152
2559	23 10 28.39 (0.02)	-14 01 20.3 (0.3)	126 (6)	7 3 pa=21
2564	23 11 58.52 (0.02)	13 42 43.6 (0.3)	194 (10)	8 5 pa=110
2566	23 13 26.27 (0.02)	-20 44 09.6 (0.3)	23 (1)	6 4 pa=123
2597-A	23 22 43.71 (0.02)	-12 23 55.0 (0.3)	1699 (85)	4 2 pa=31
2627-B	23 34 11.84 (0.02)	23 38 08.6 (0.3)	24 (1)	3 2 pa=89
2638	23 37 55.29 (0.02)	-11 59 47.1 (0.3)	98 (5)	8 6 pa=107
2665	23 48 17.08 (0.02)	05 52 17.5 (0.3)	50 (3)	10 4 pa=24

Figure 1 contains the CLEANed maps of all the sources much bigger than than the CLEAN beam. Table 2 contains the results of the Gaussian model fits to the sources smaller than two beamwidths. Column (1) contains the Abell cluster number. In columns (2) and (3) we give the fitted 1950.0 position and the estimated error in parenthesis. Column (4) contains the fitted total flux density in mJy and the estimated error and column (5) contains the fitted source size: major axis, minor axis in arcsec, and position angle.

Figure 2 (Plates 1–36) contains finding charts for each radio galaxy taken from the Palomar Sky Survey E plates.

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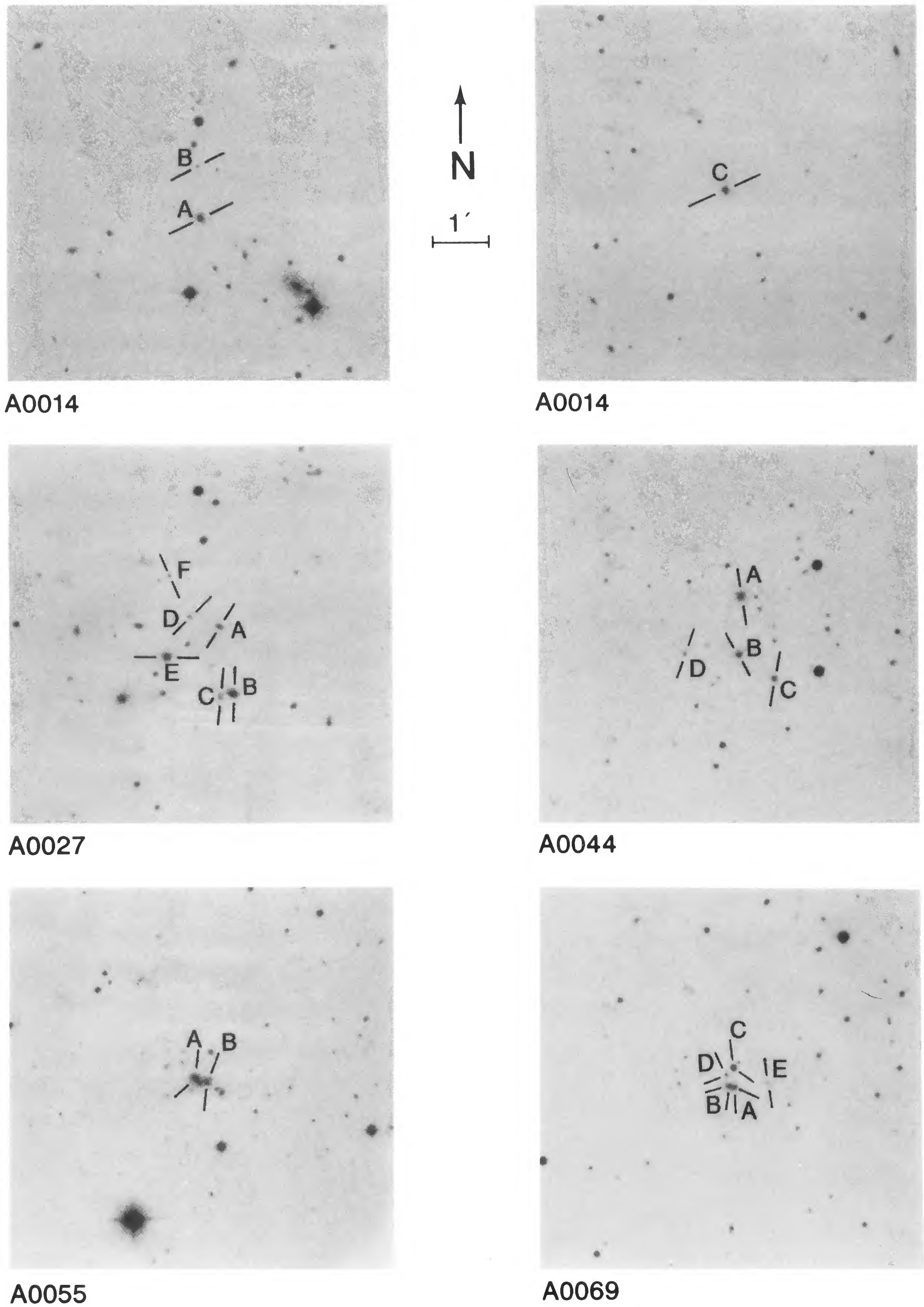


FIG. 2.—Finding charts from the Palamar Sky Survey E plates

OWEN, WHITE, & GE (see 87, 178)

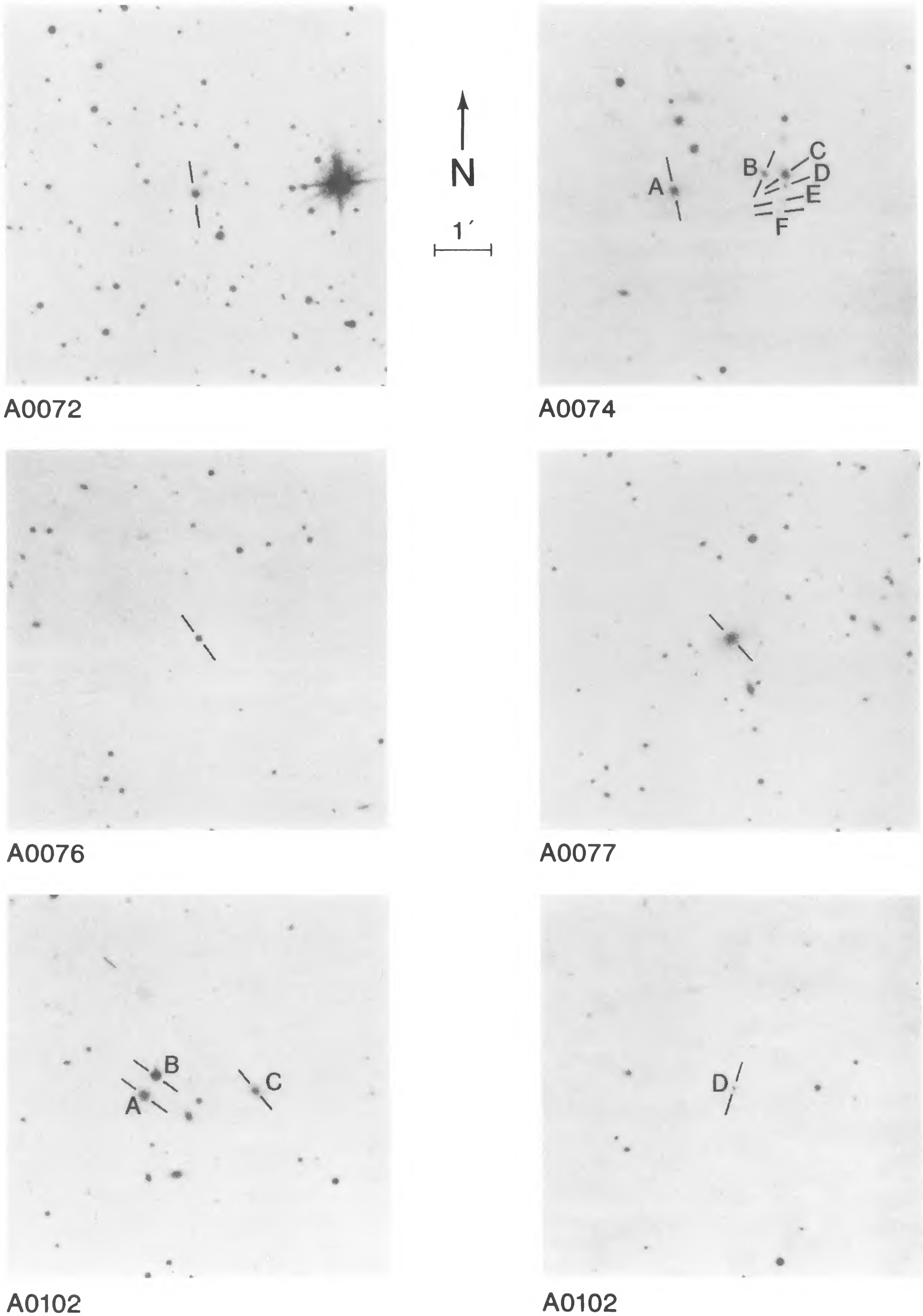
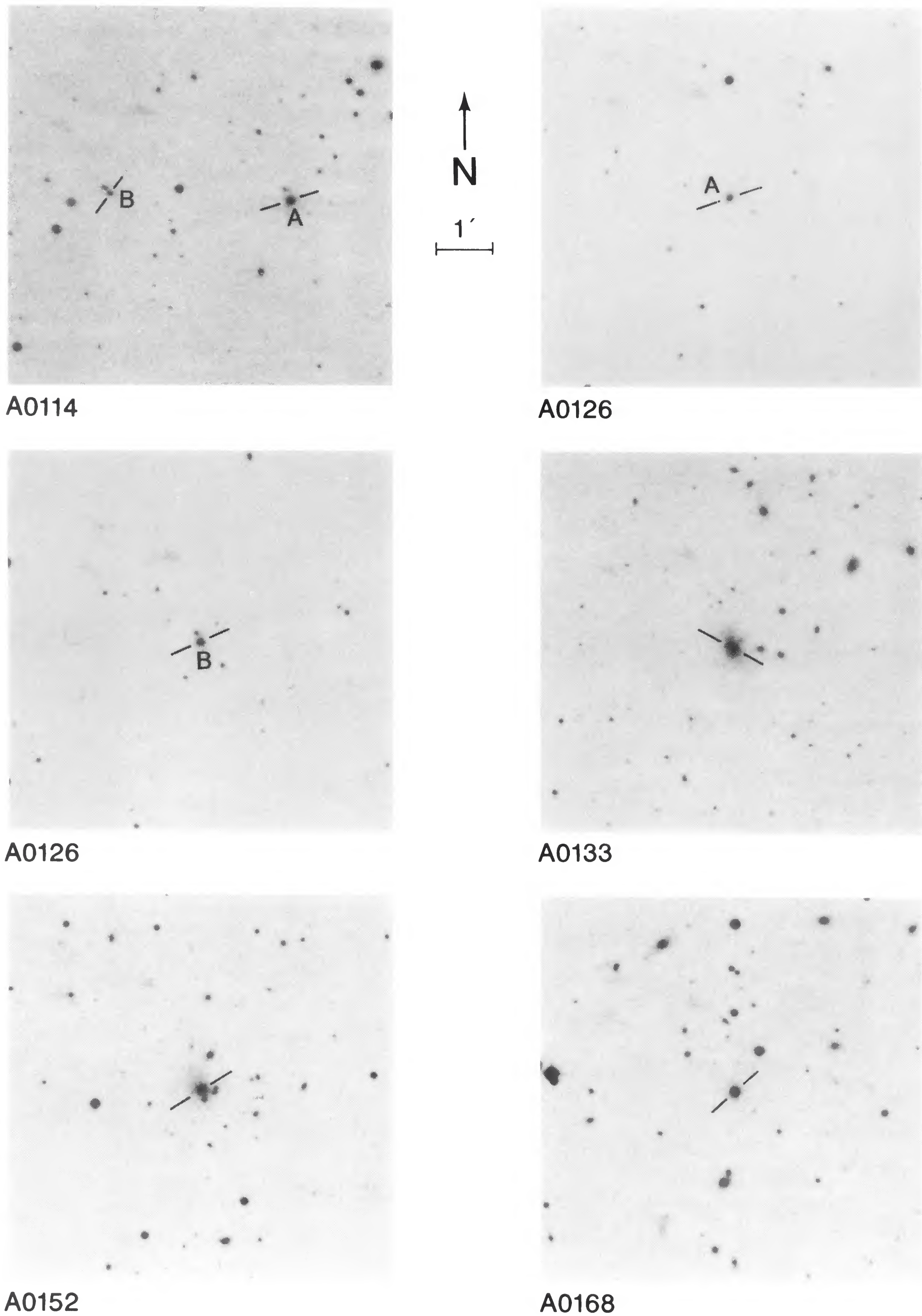
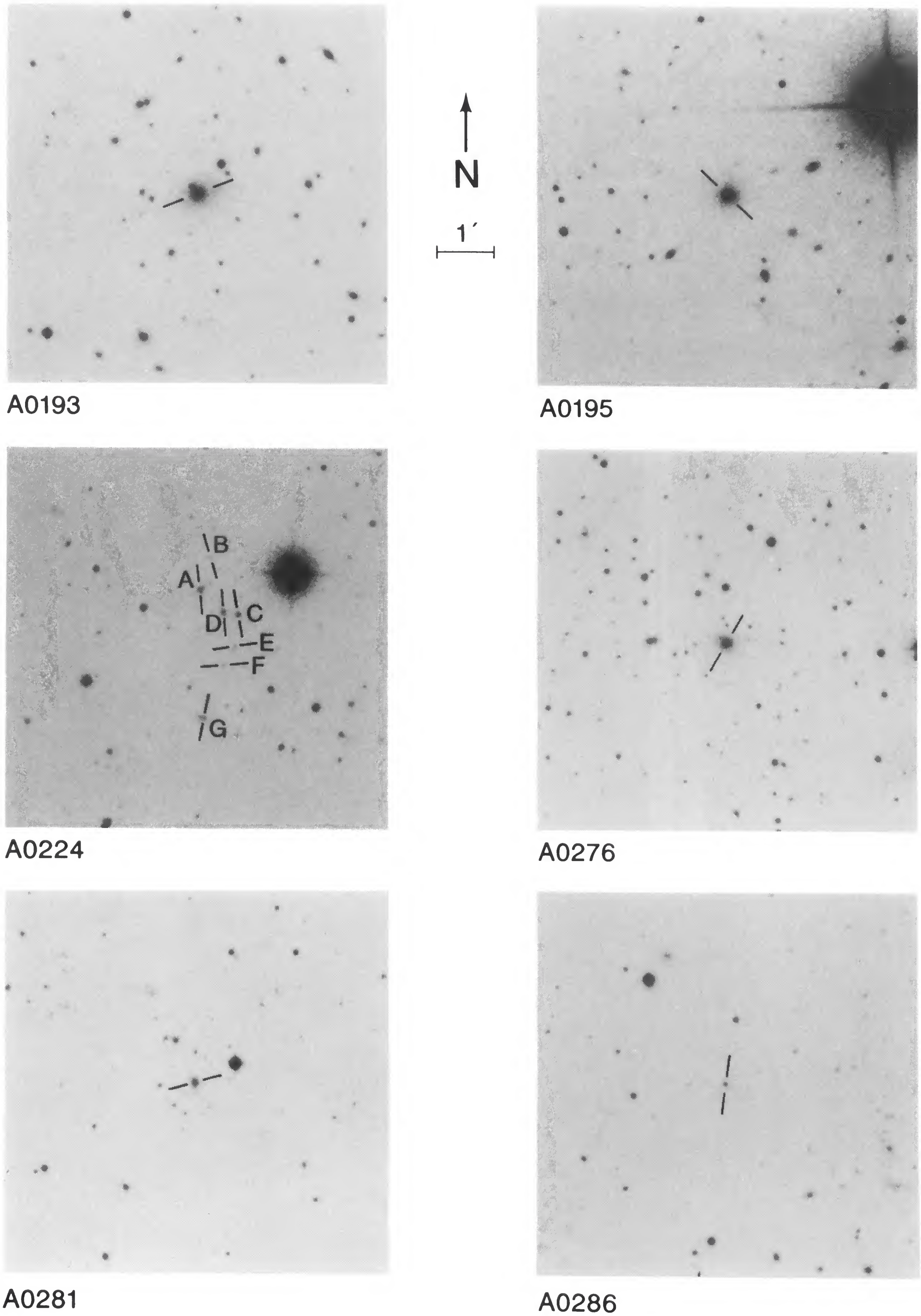


FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

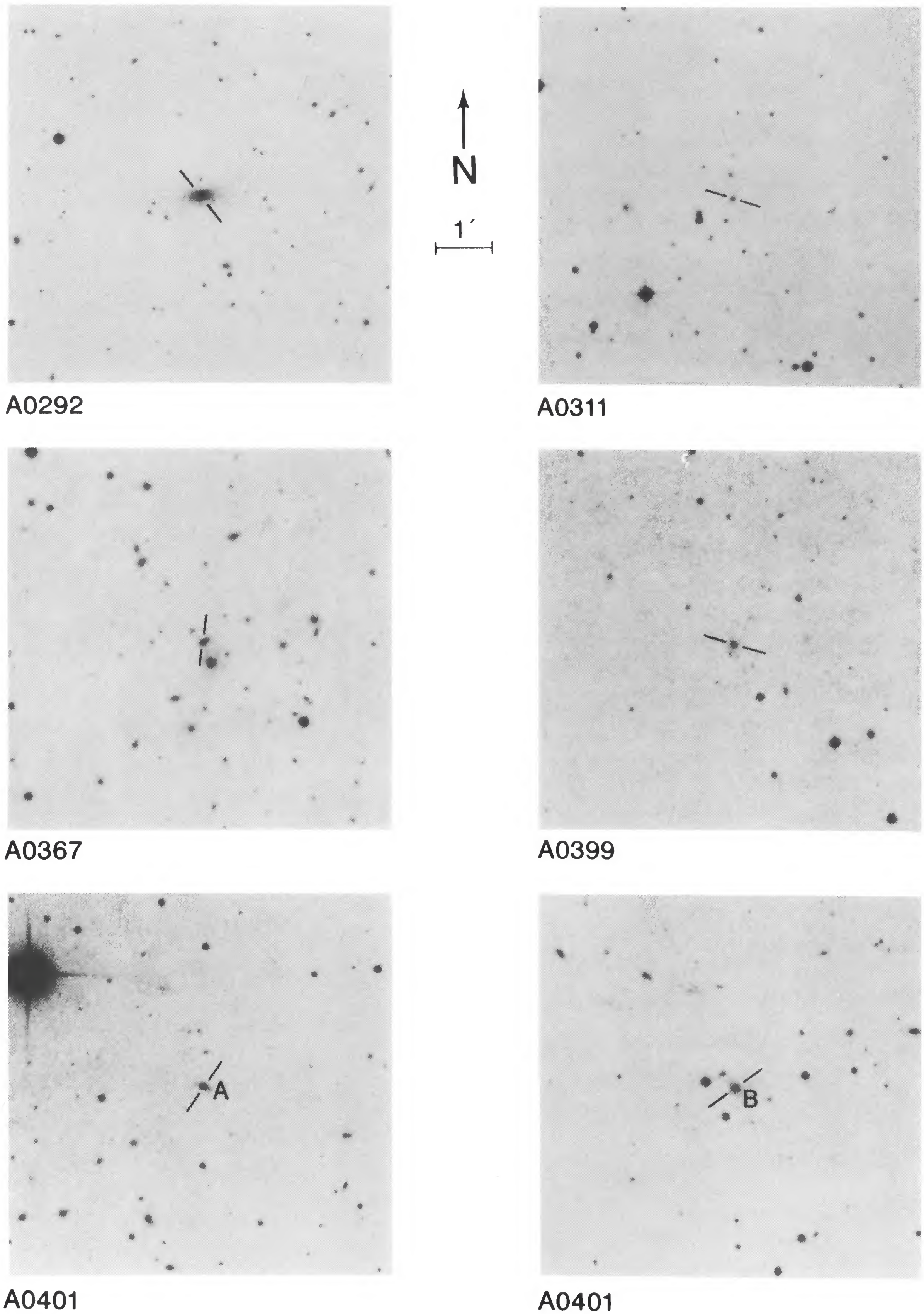


FIG. 2—*Continued*

OWEN, WHITE, & GE (see 87, 178)

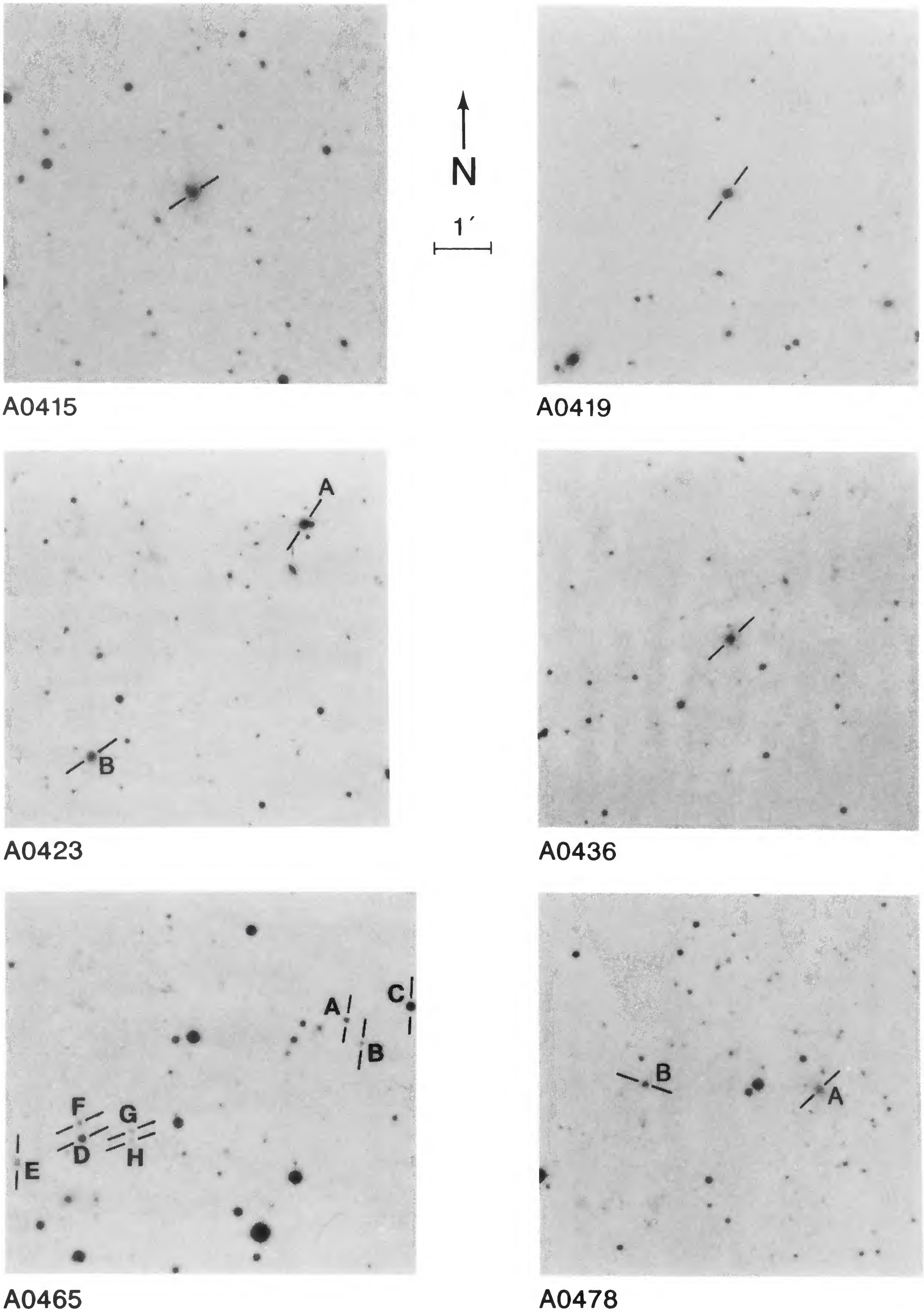
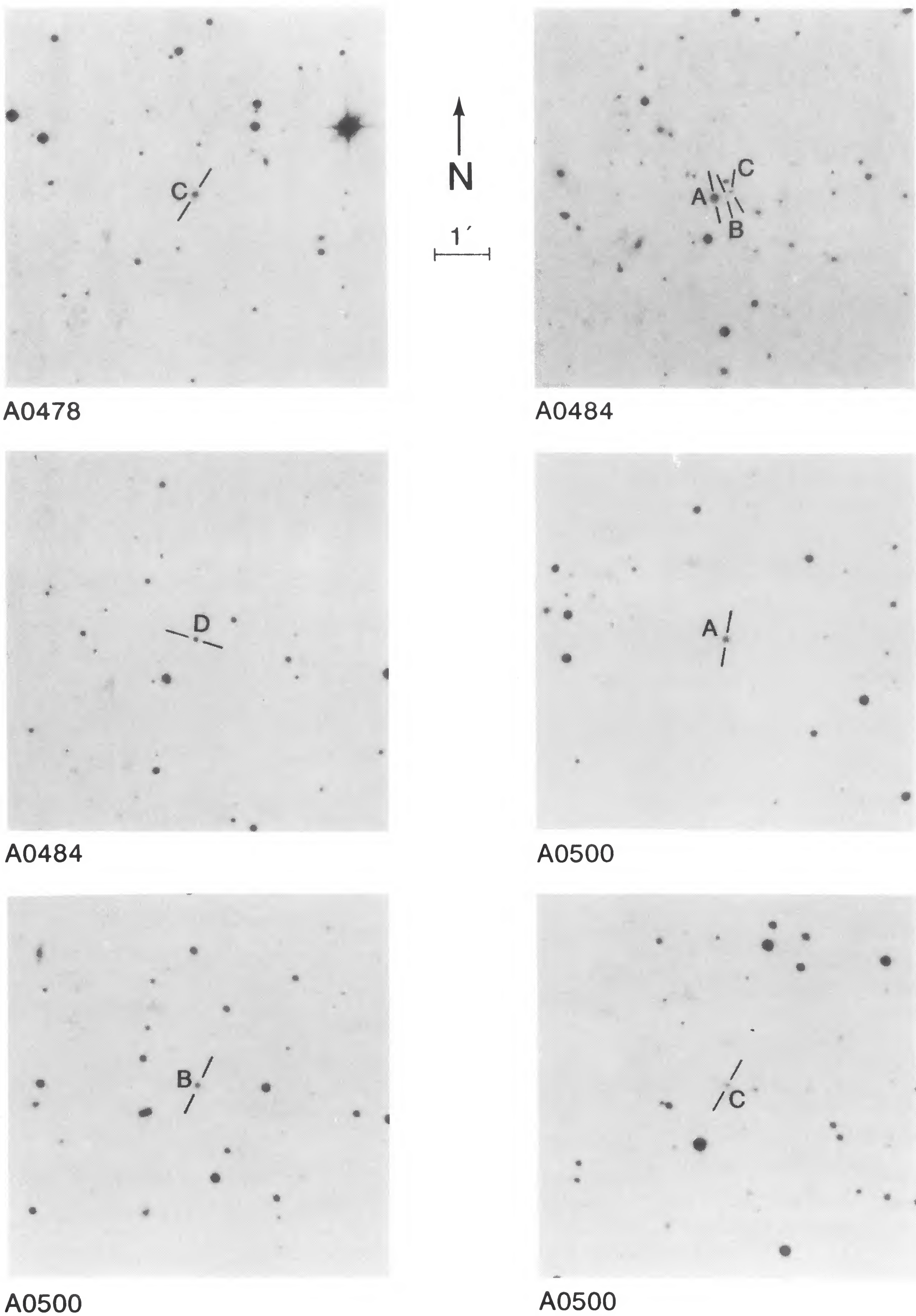


FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

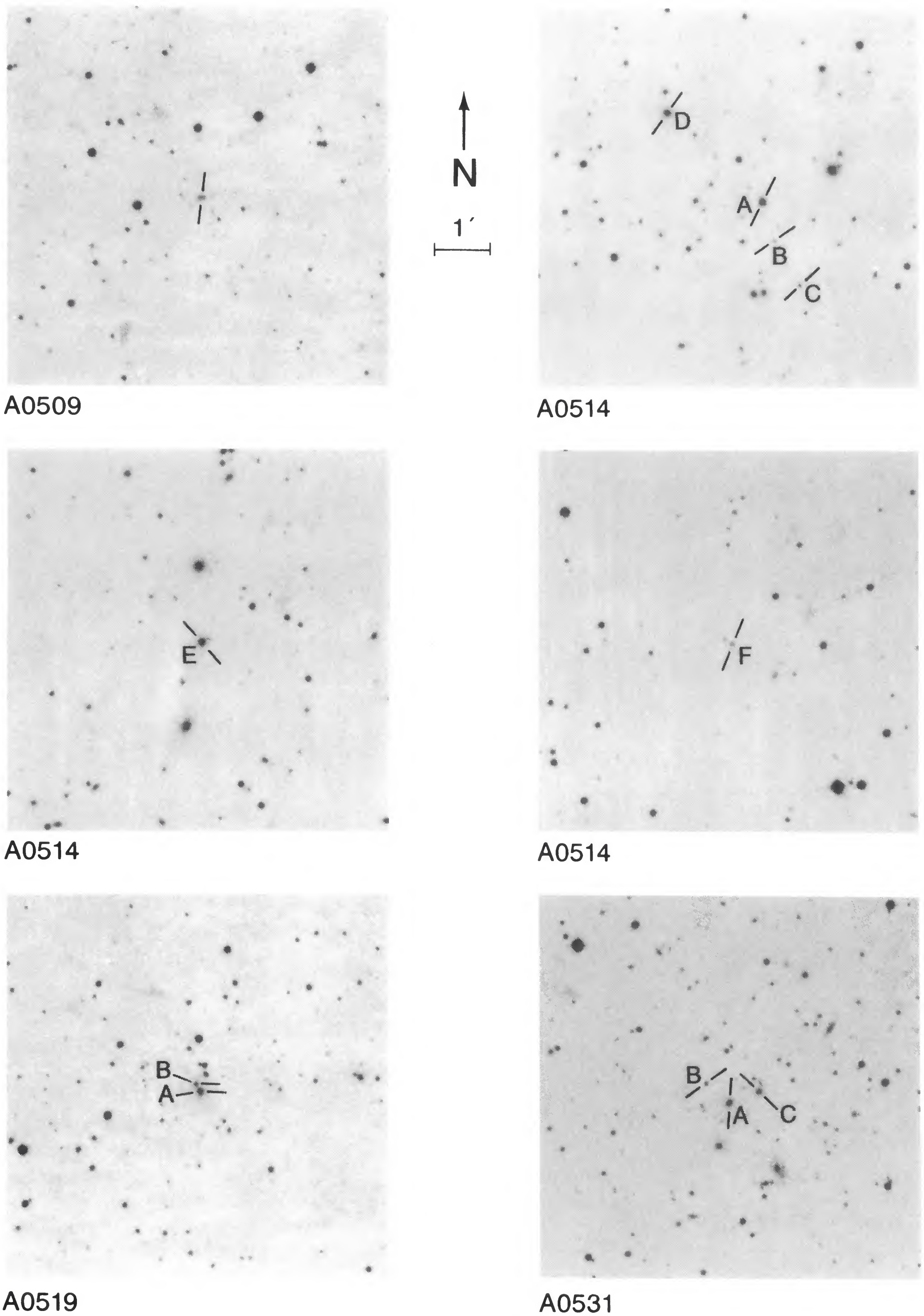
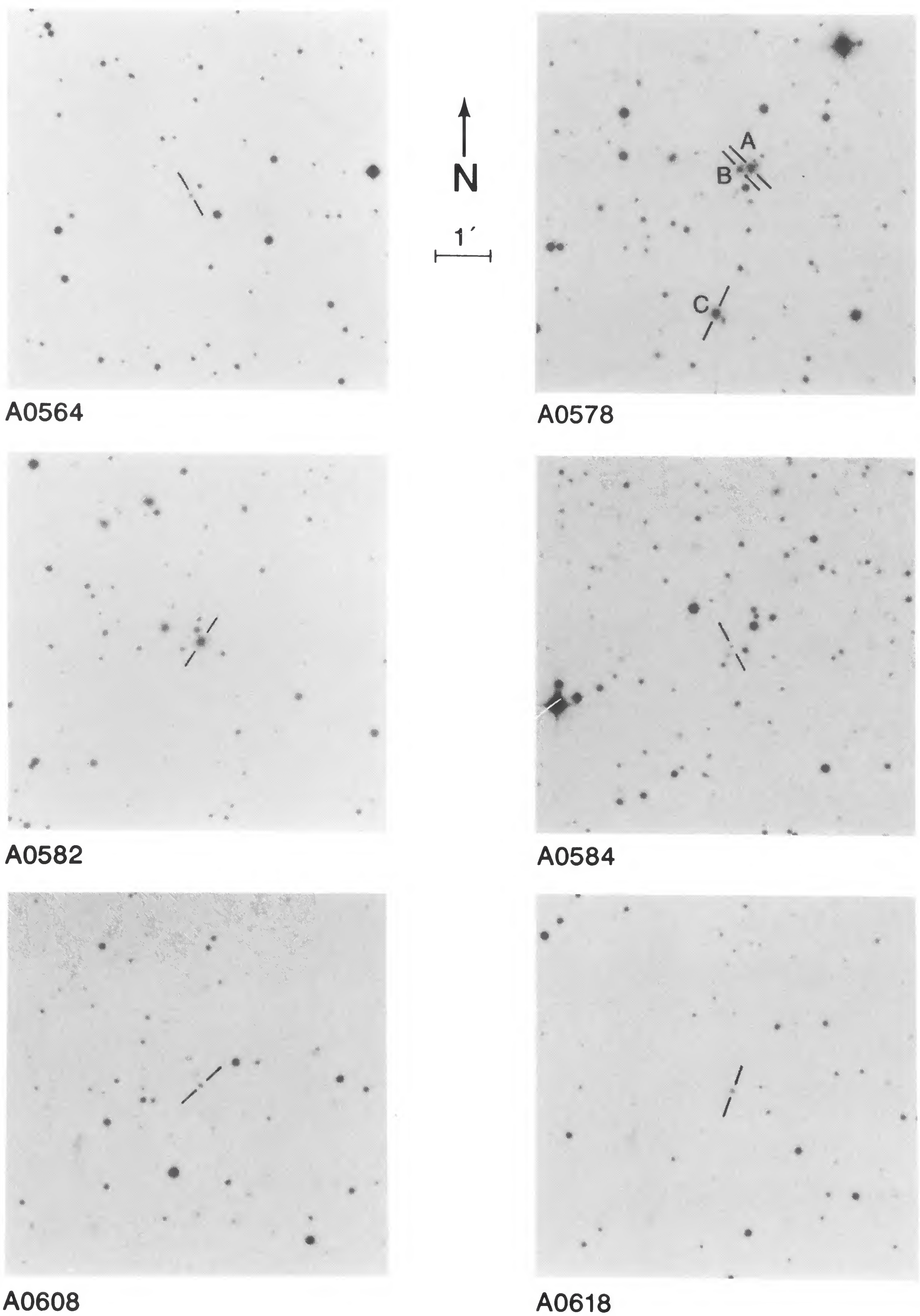


FIG. 2—*Continued*

OWEN, WHITE, & GE (see 87, 178)



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

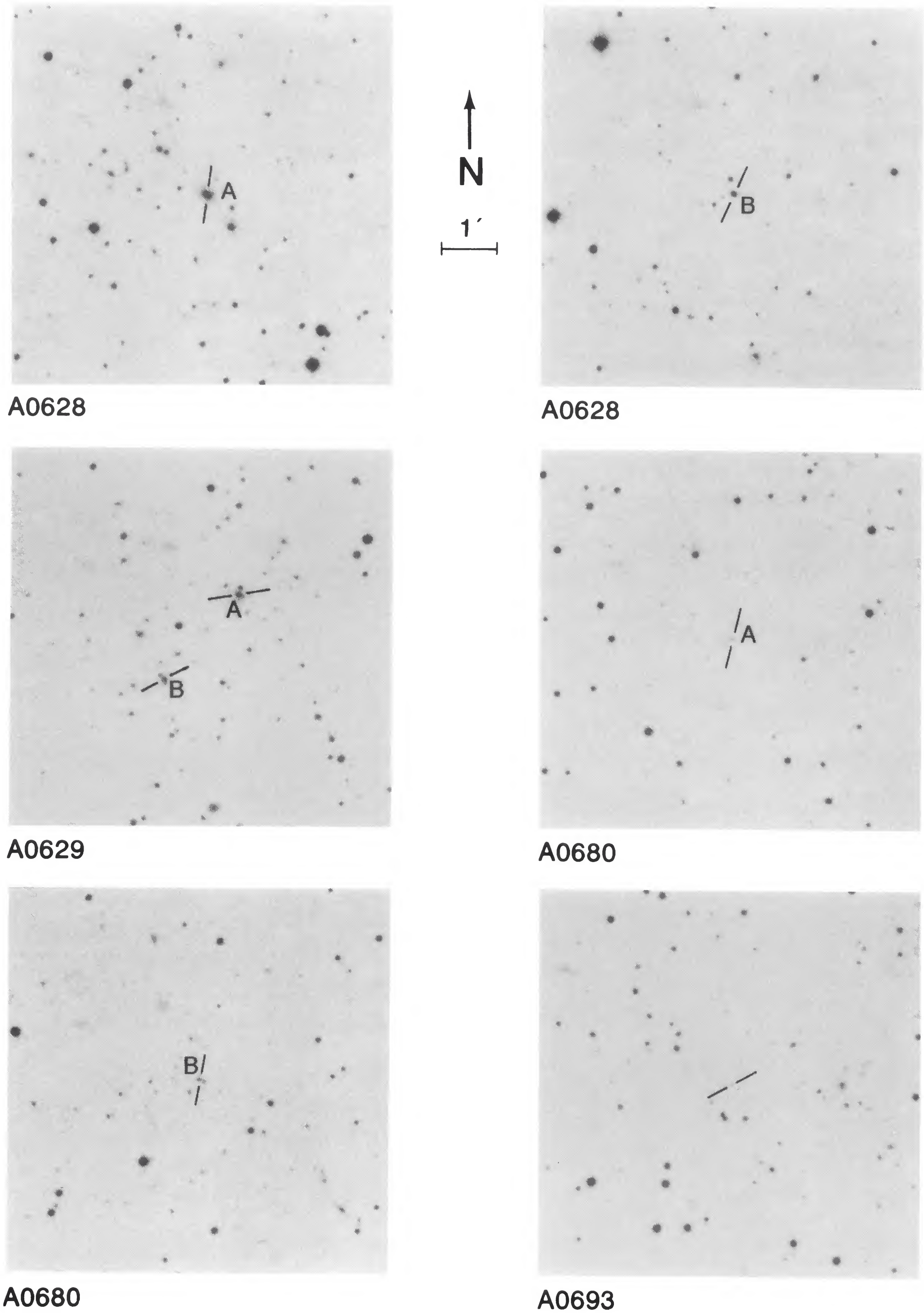


FIG. 2—*Continued*

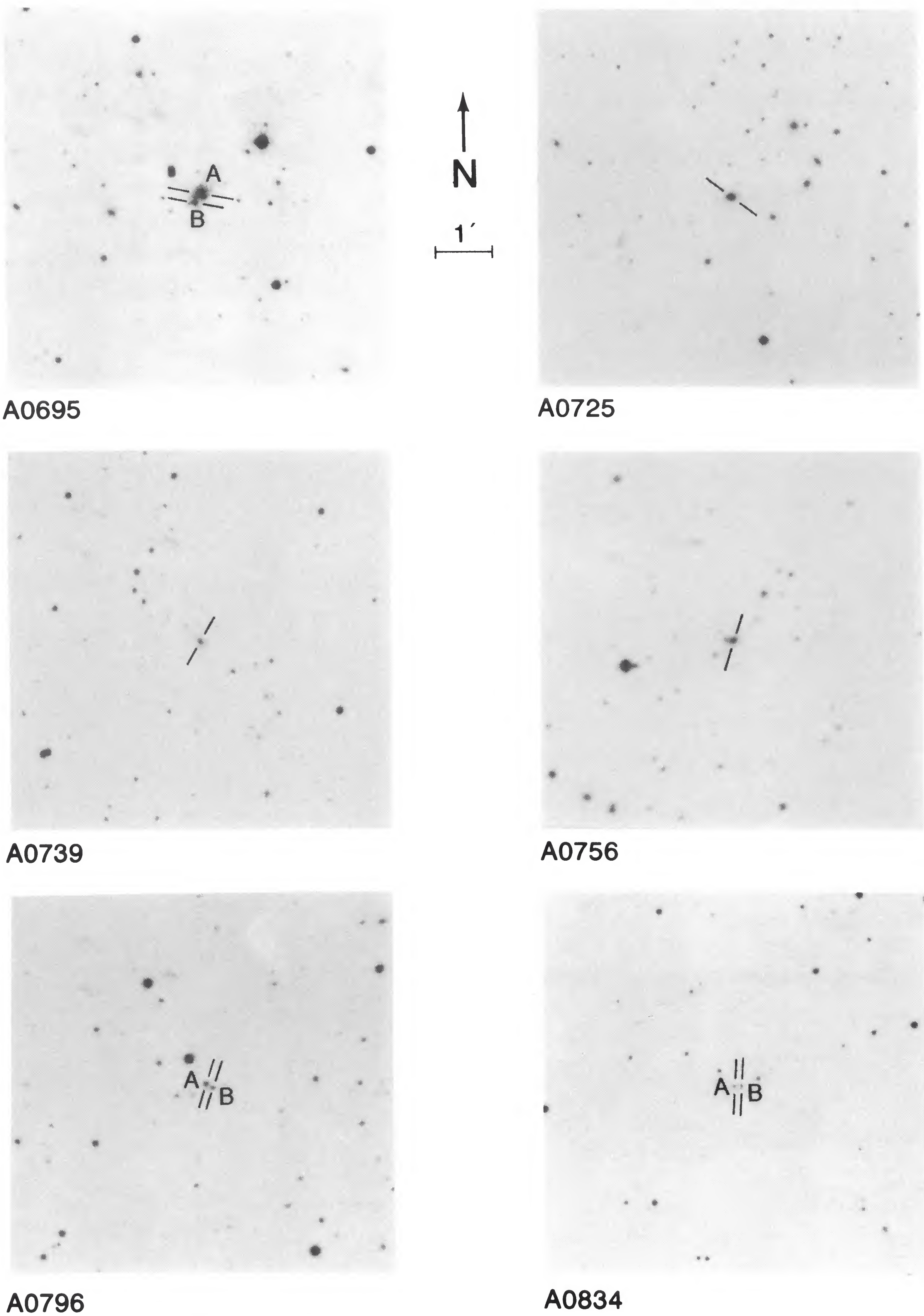


FIG. 2—*Continued*

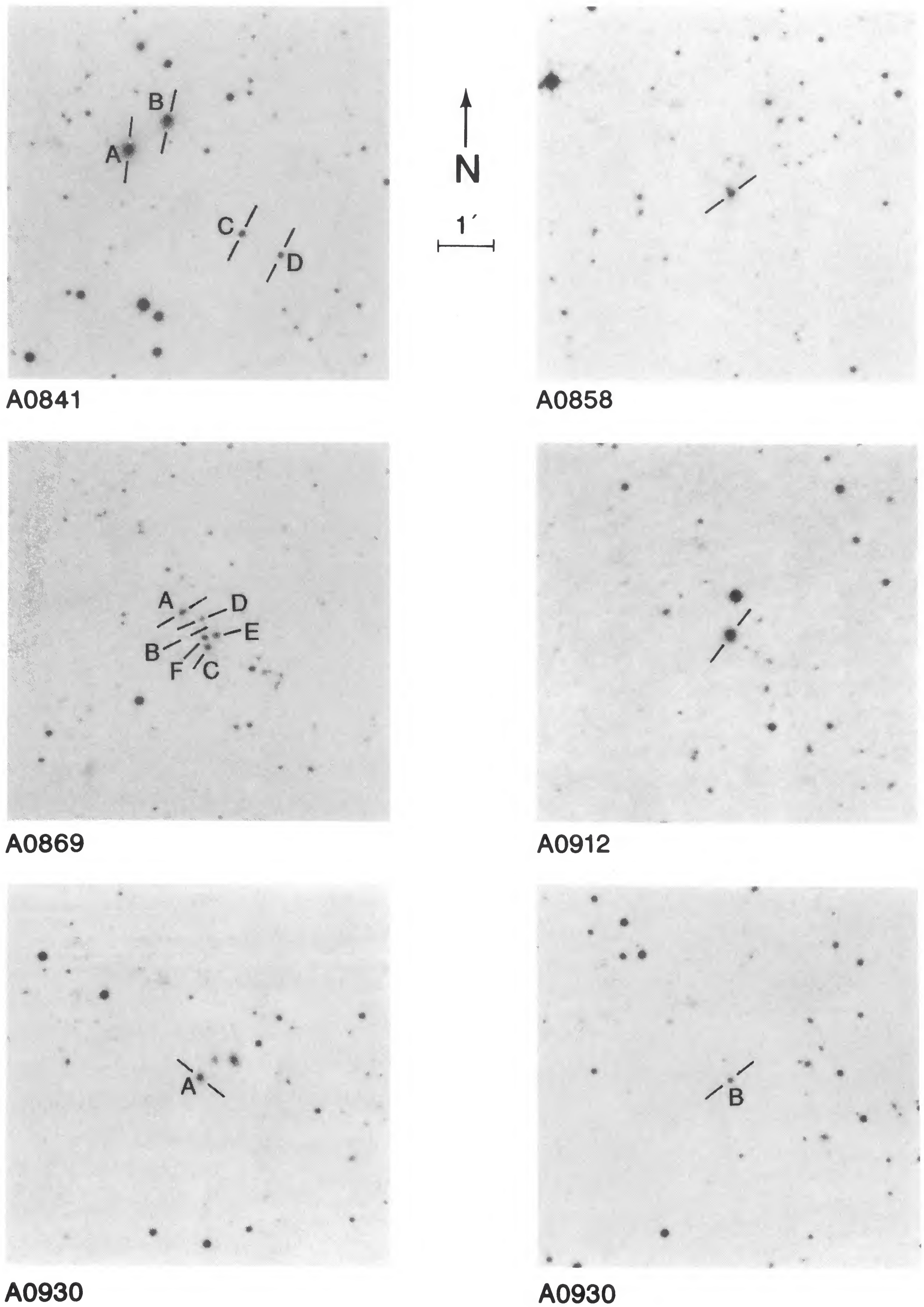
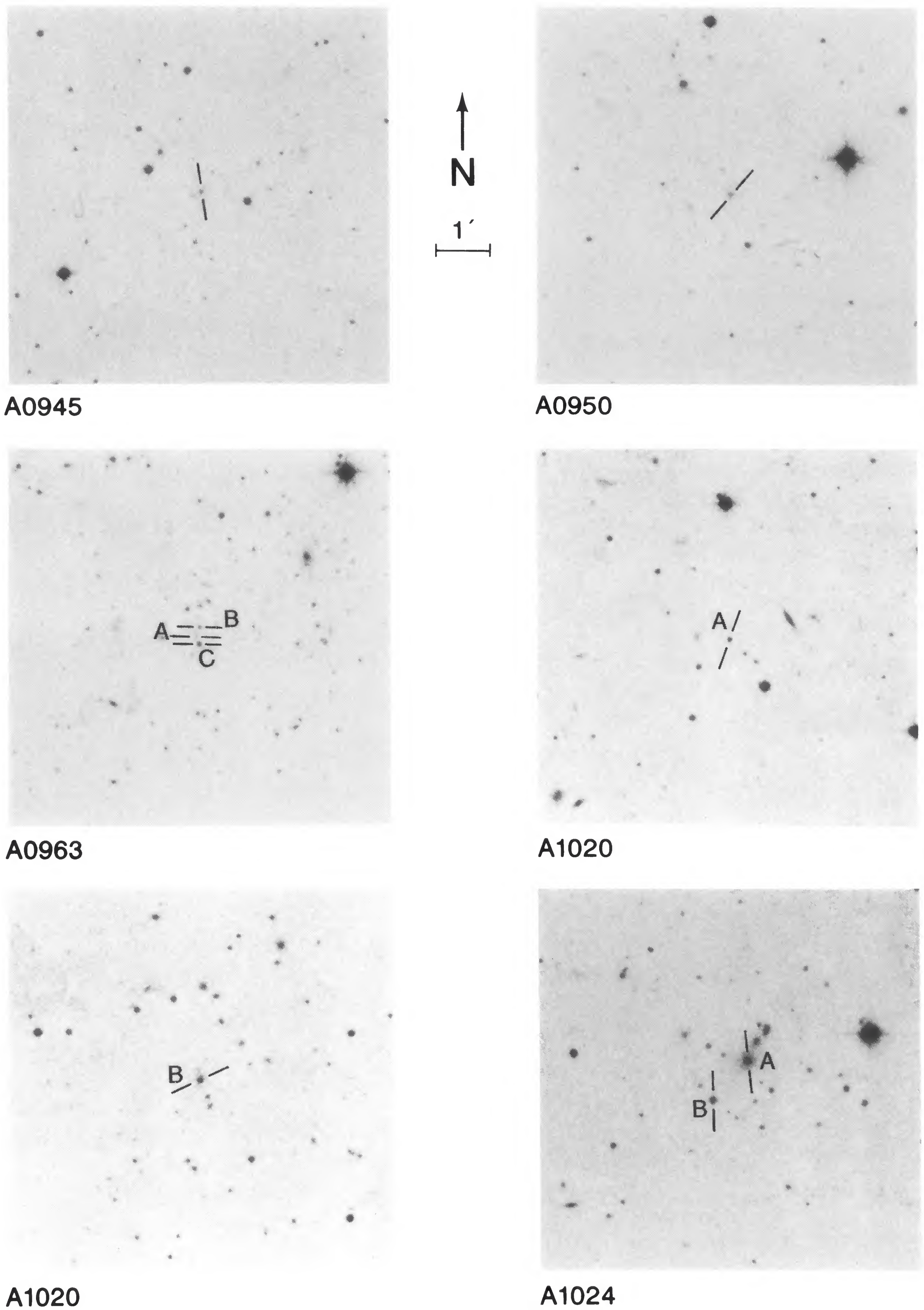
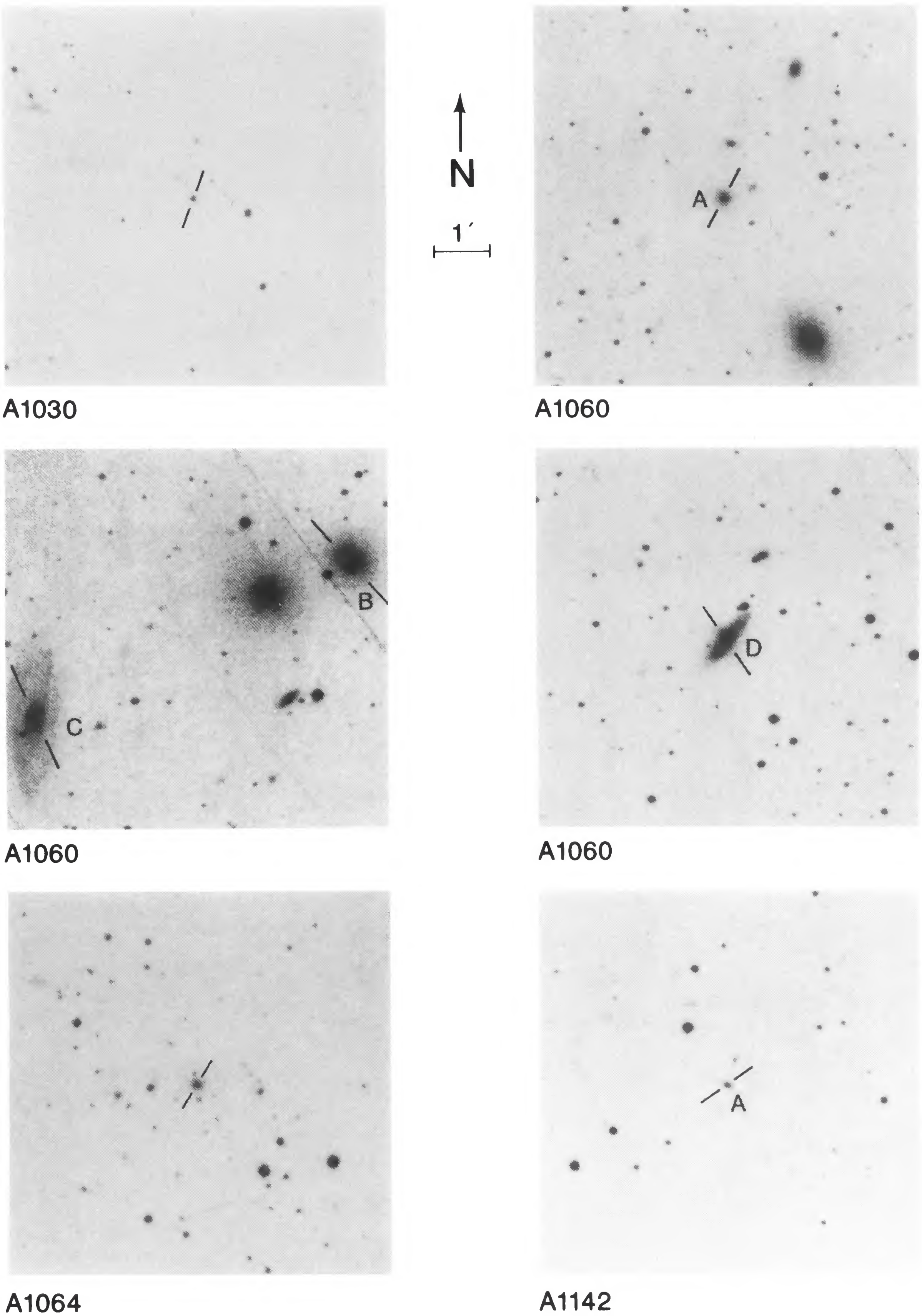


FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

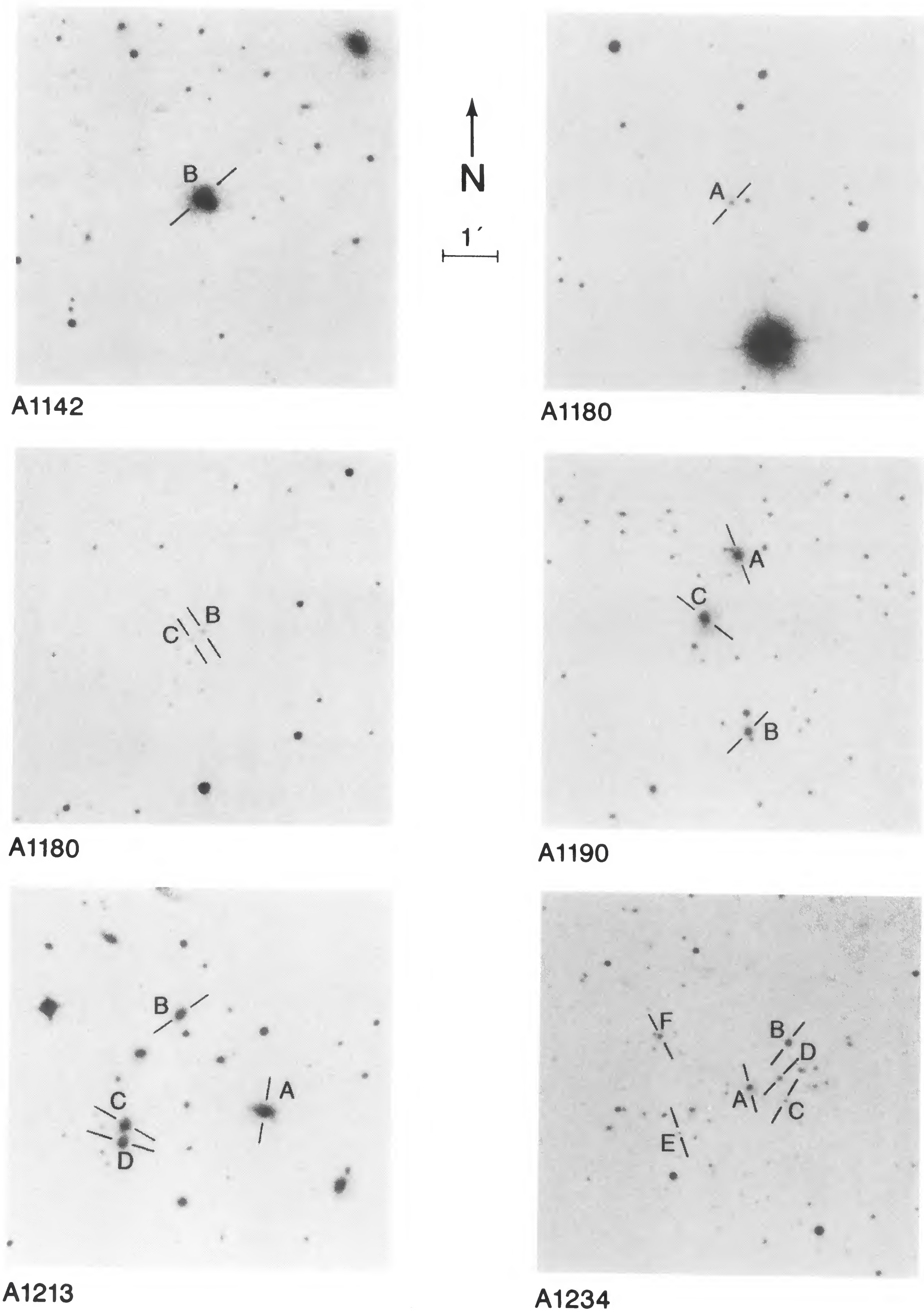
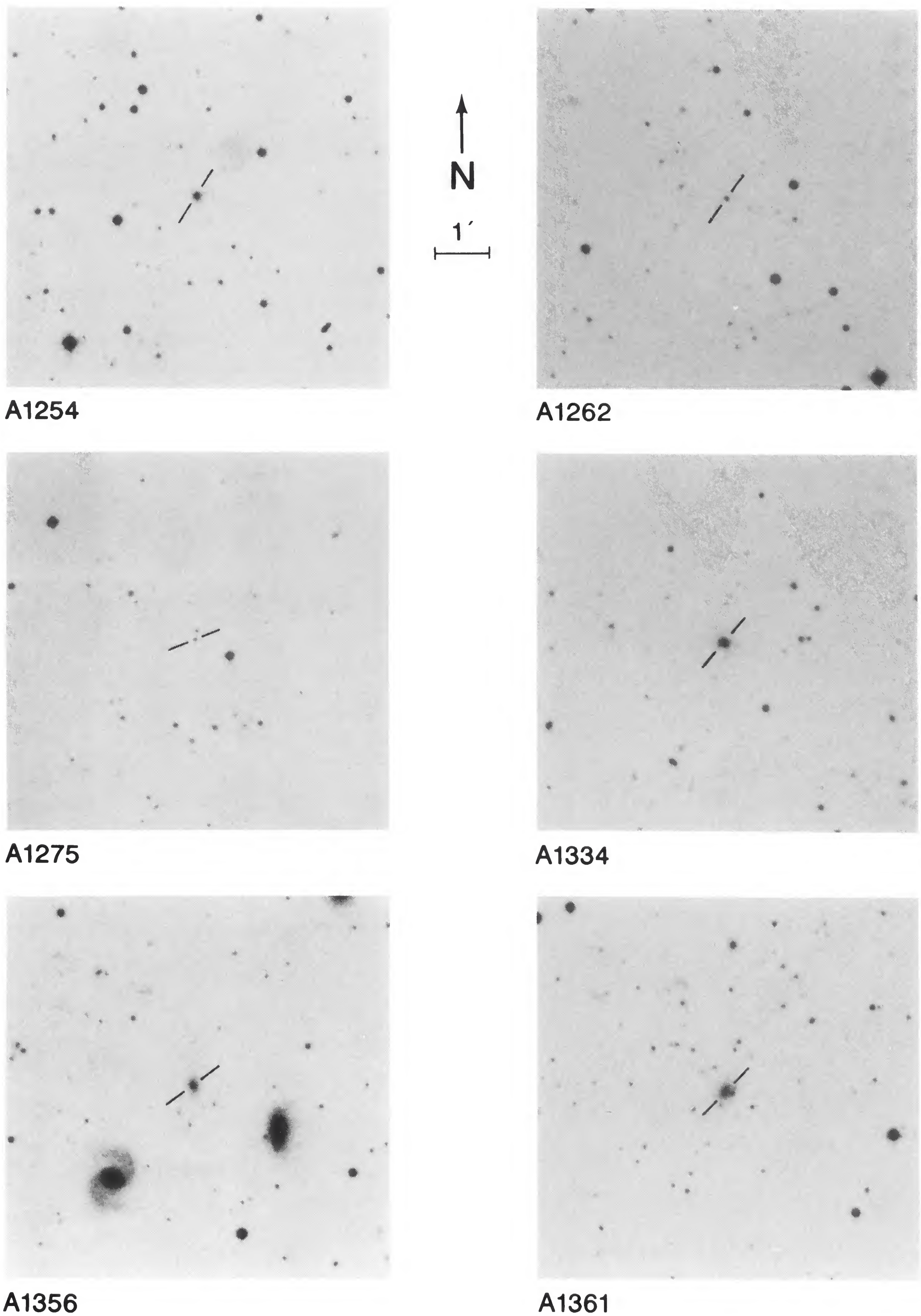
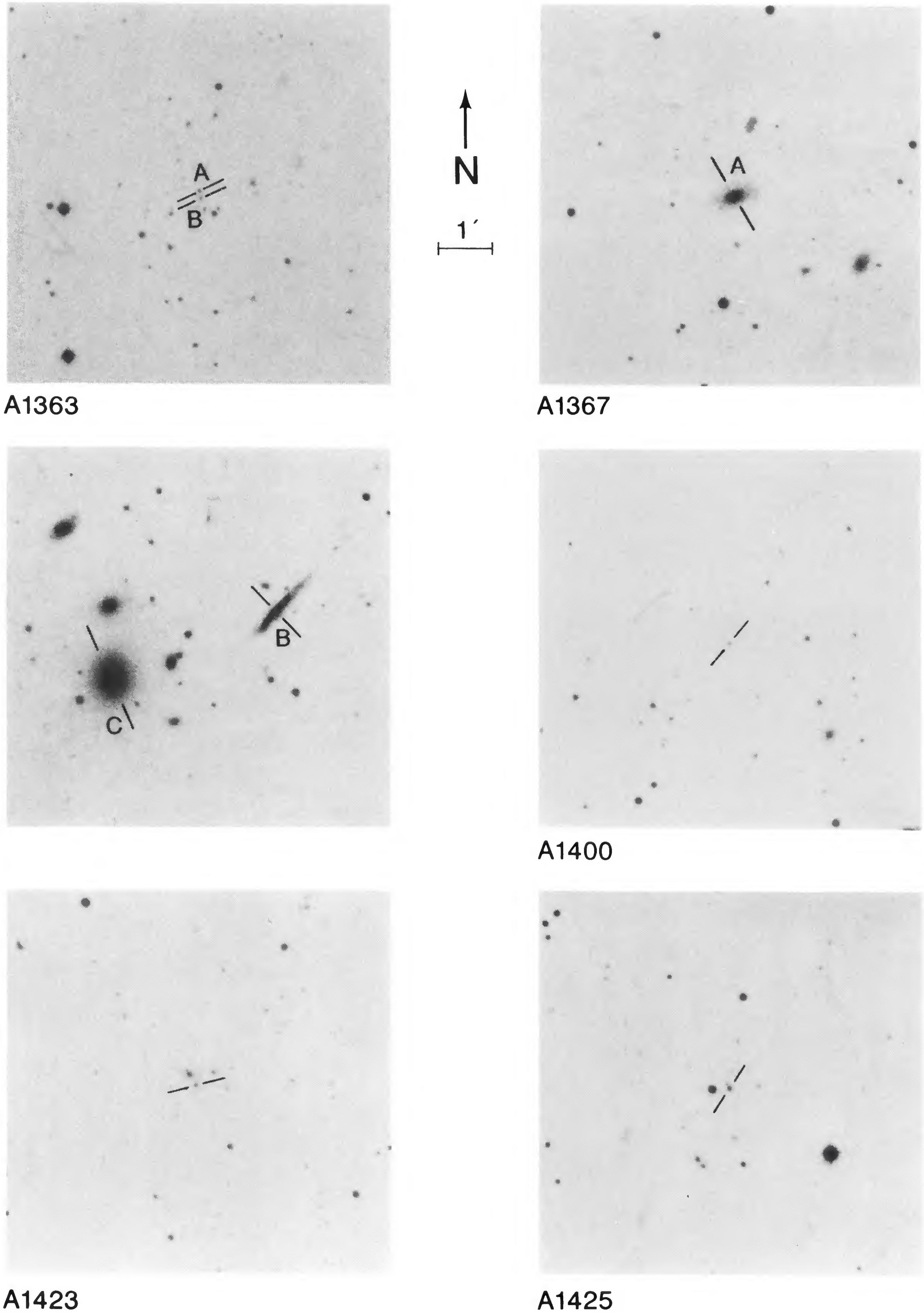


FIG. 2—*Continued*



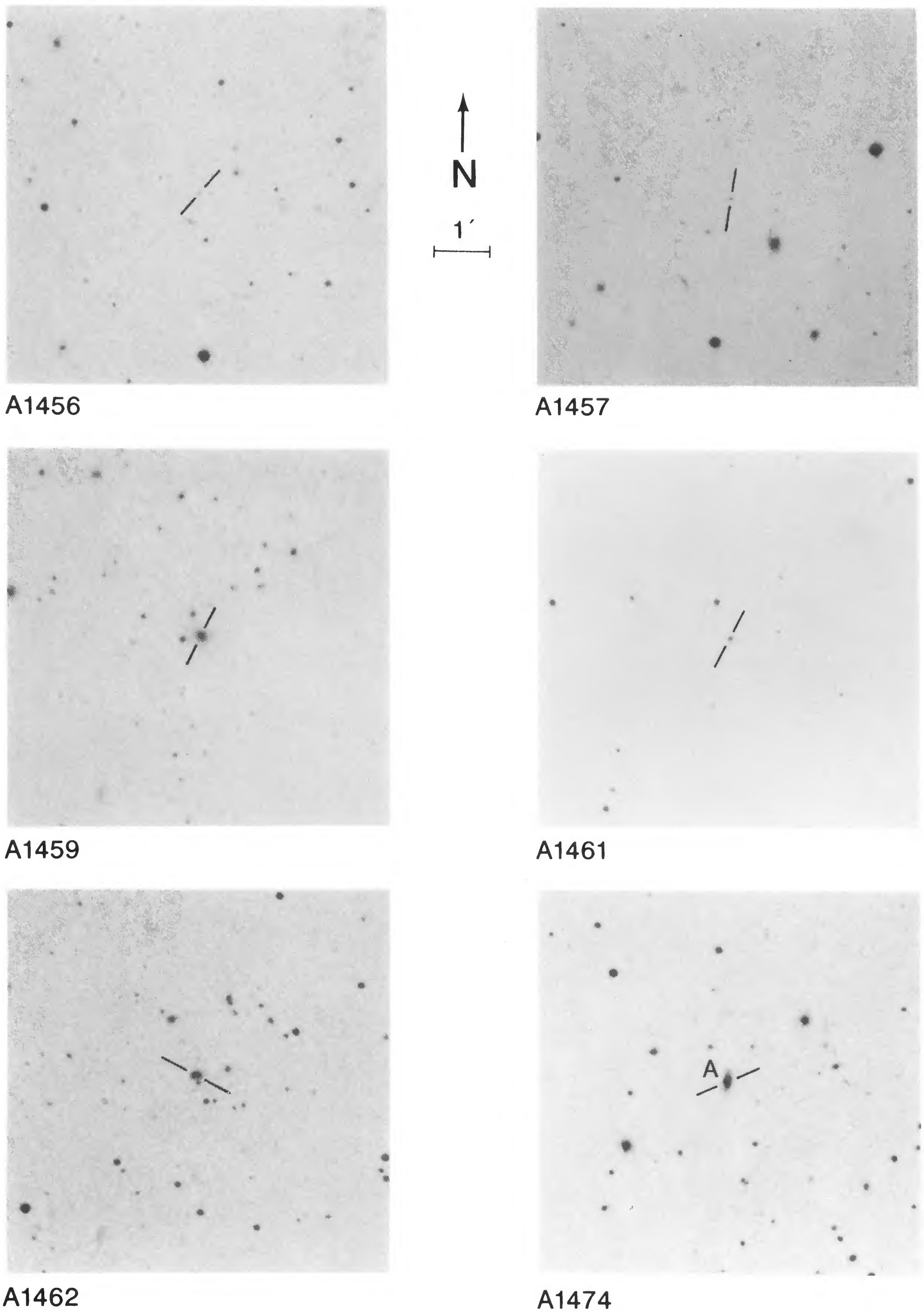
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

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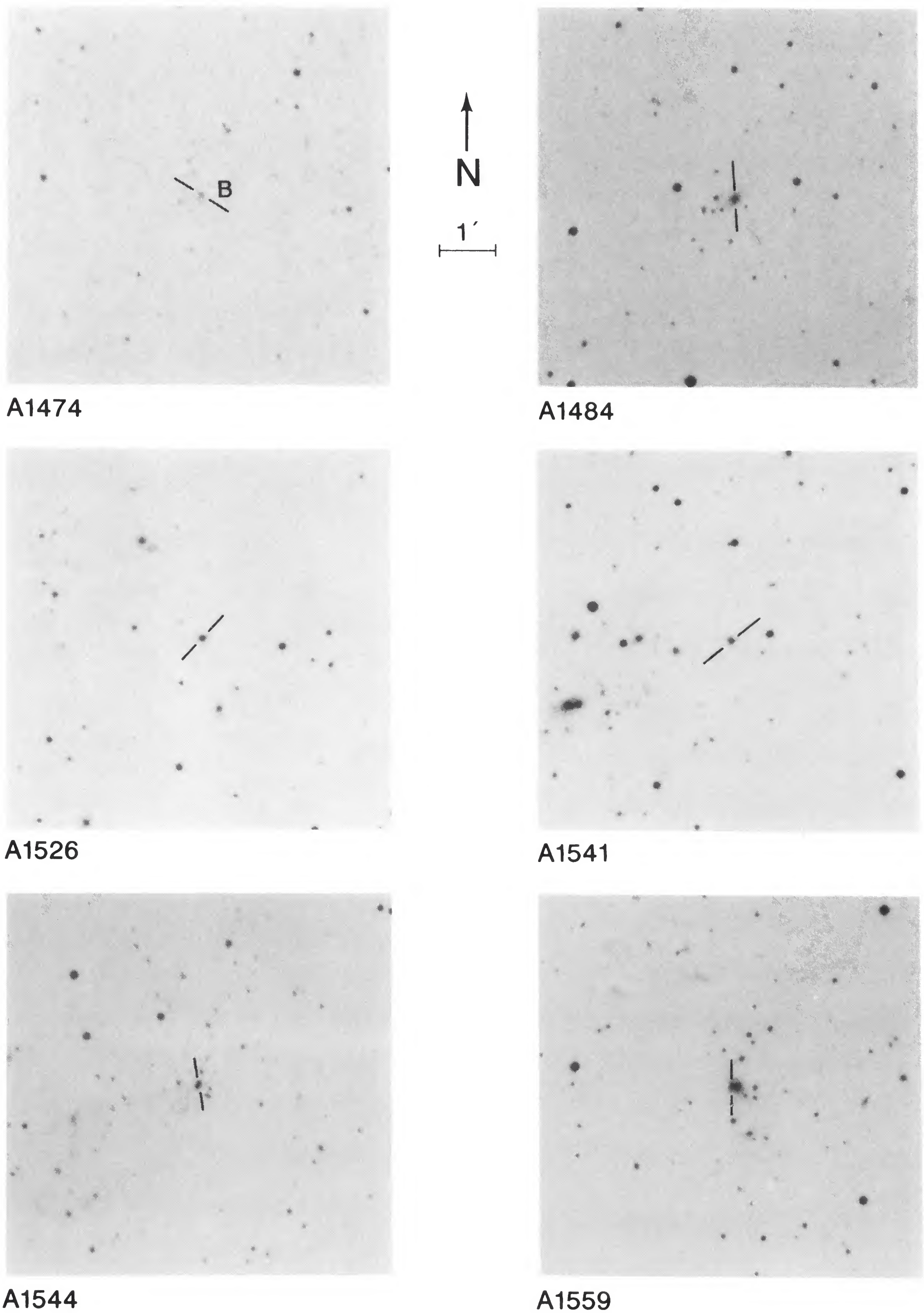
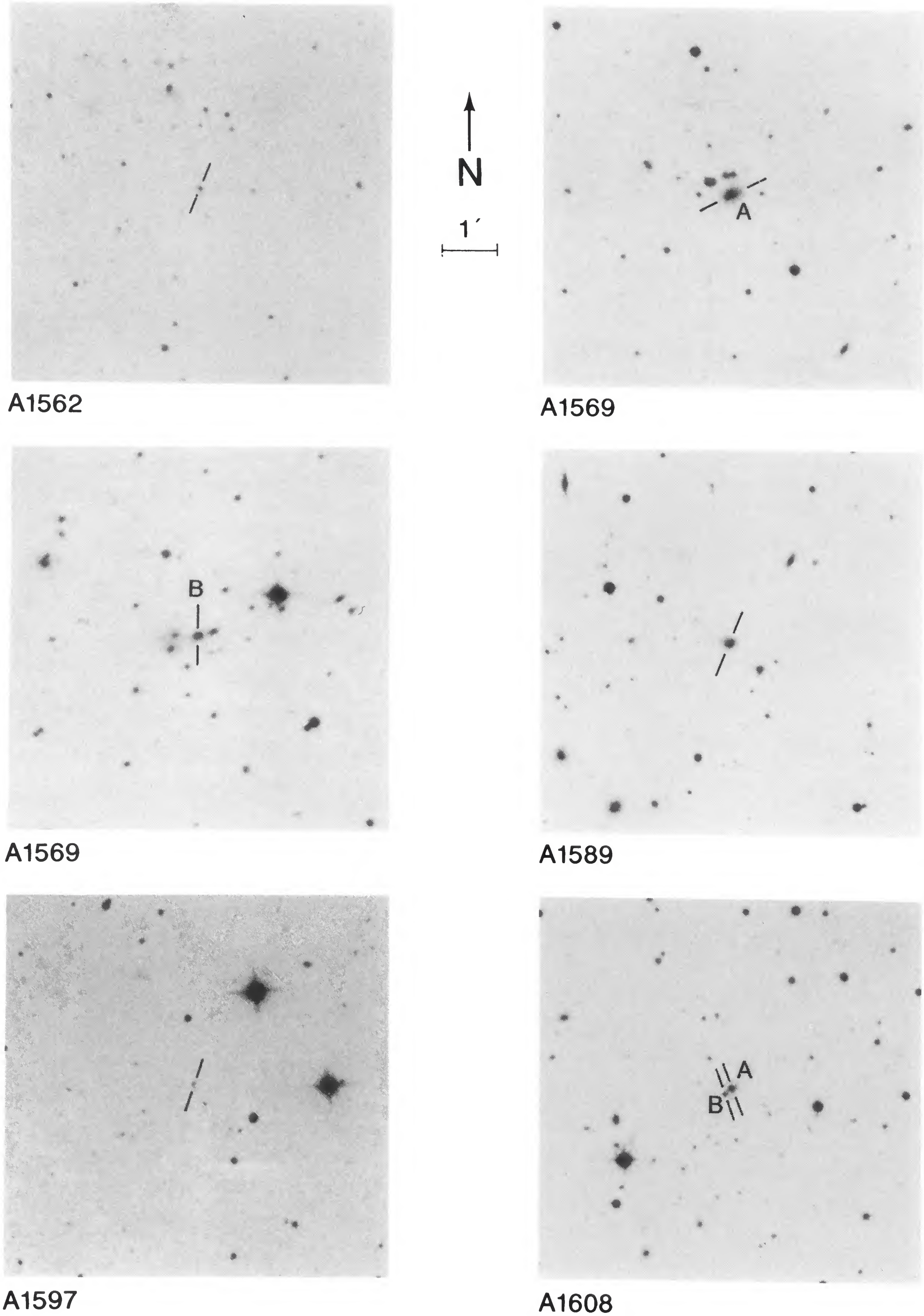


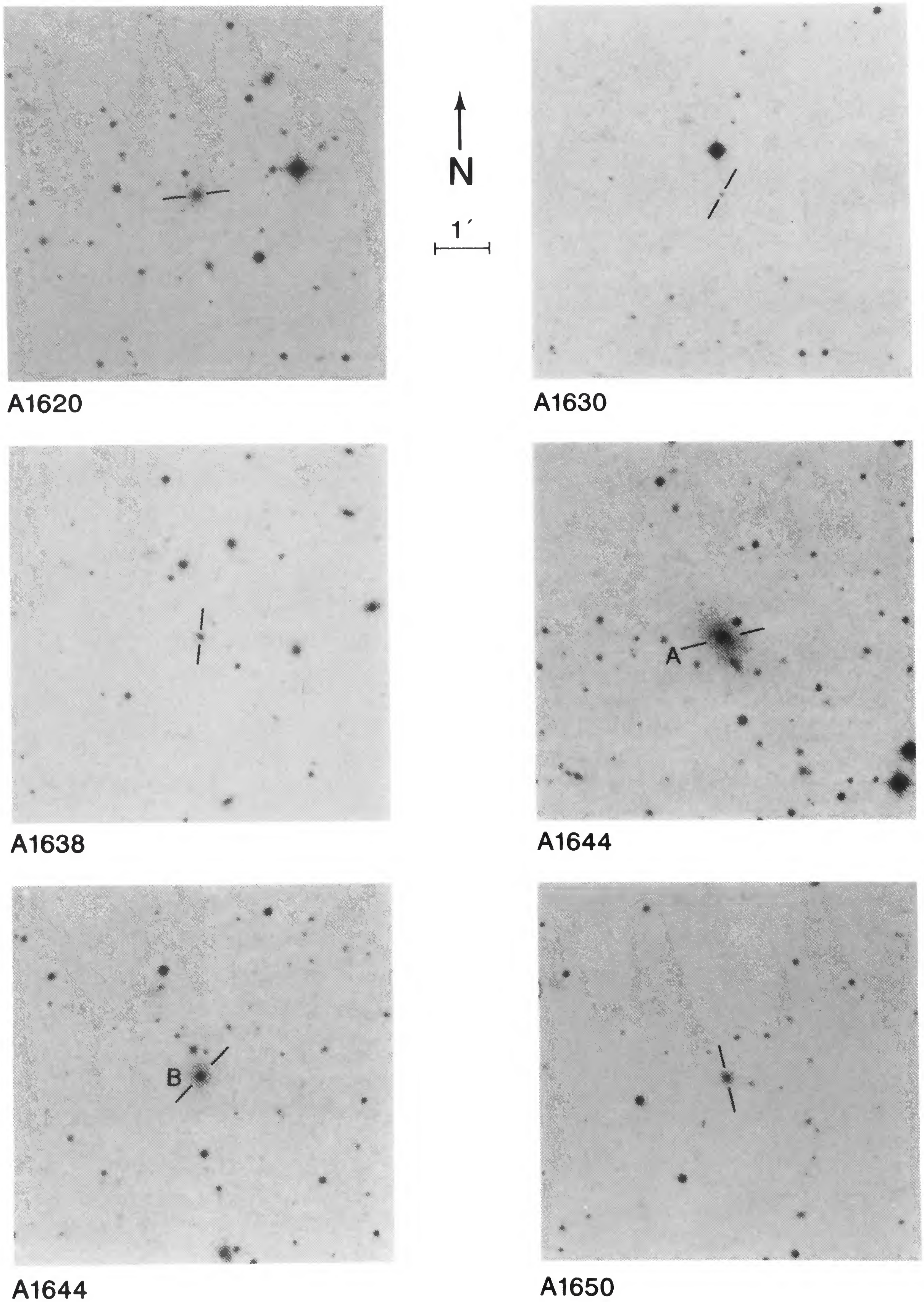
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



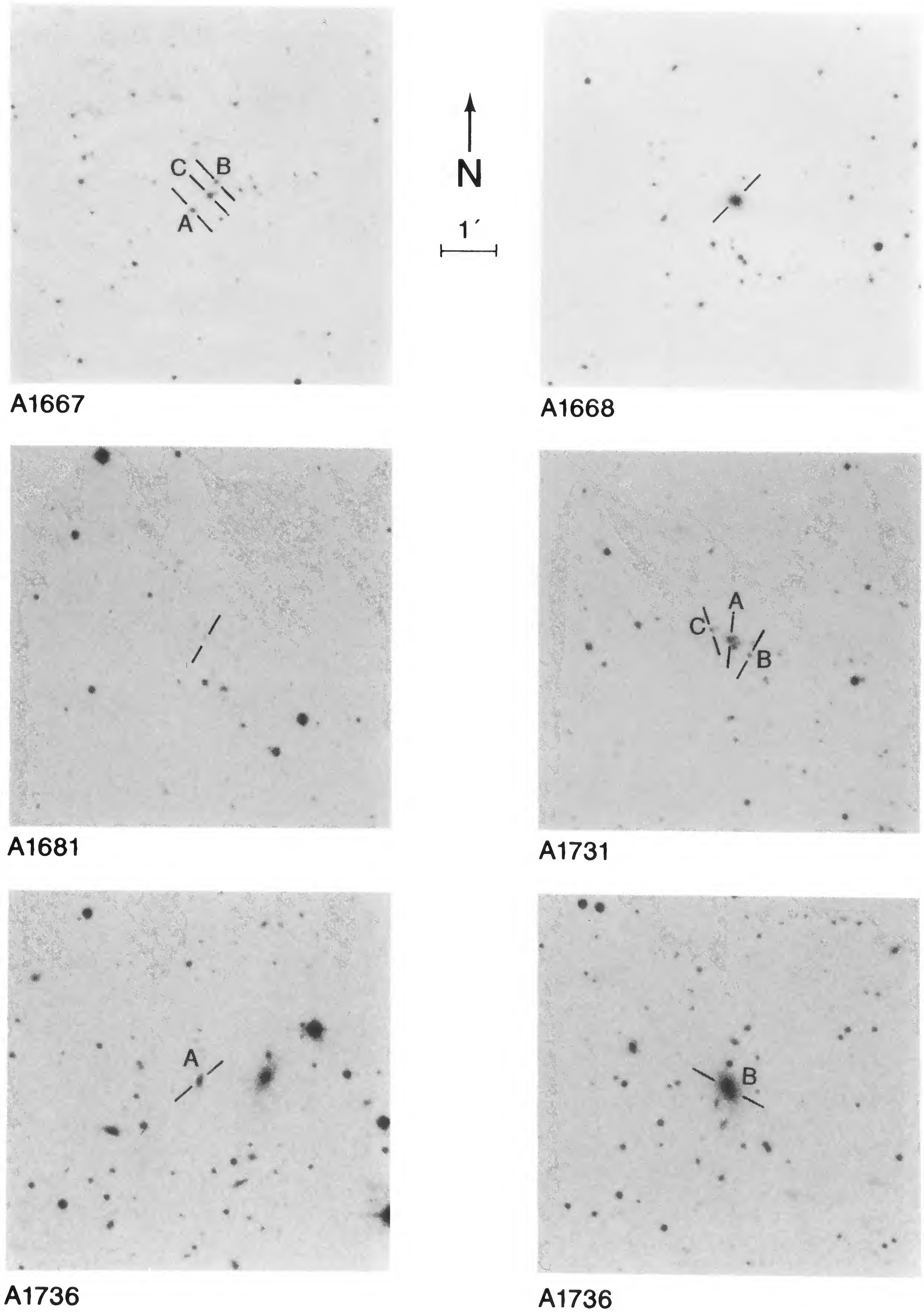
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



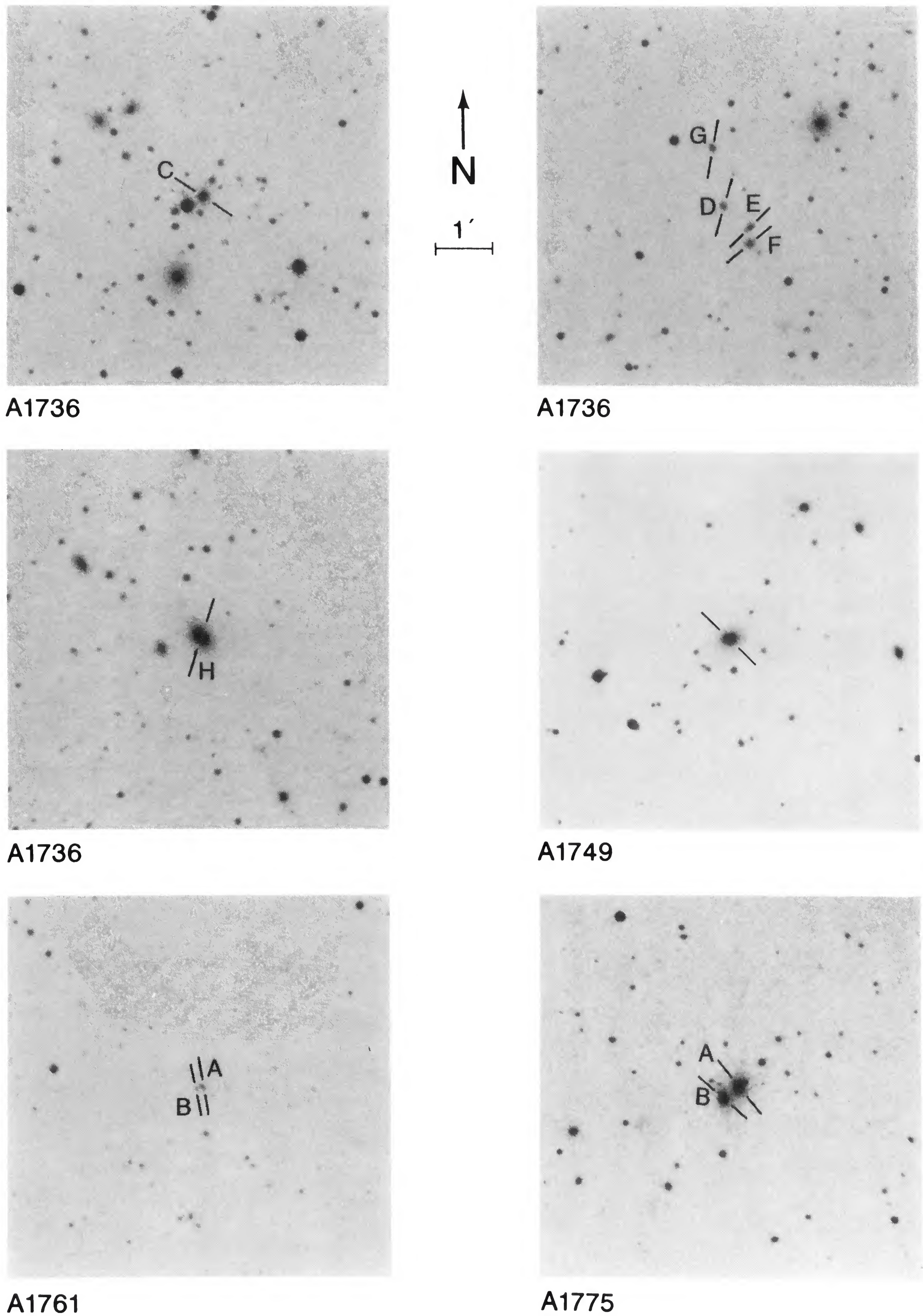
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

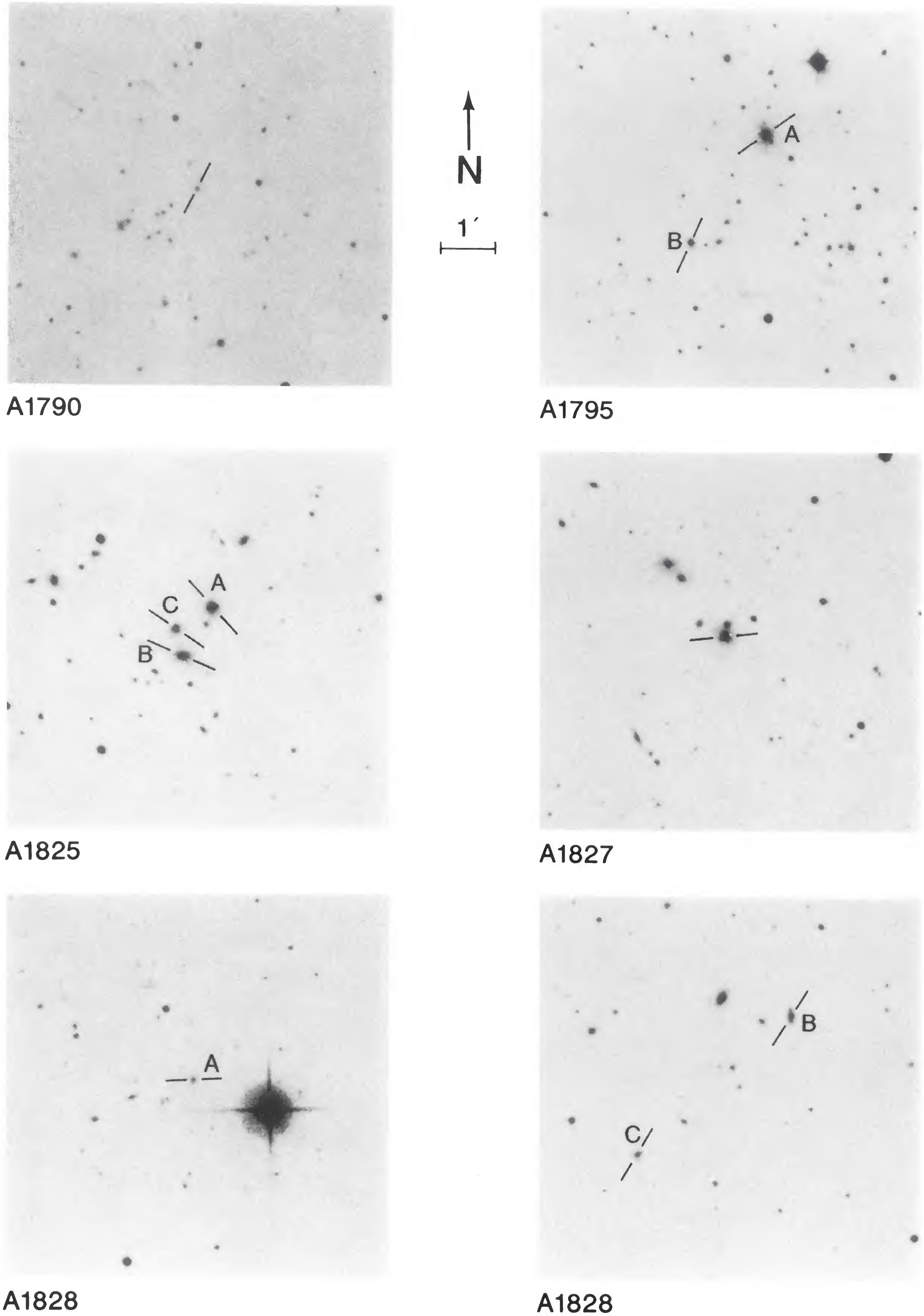
FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

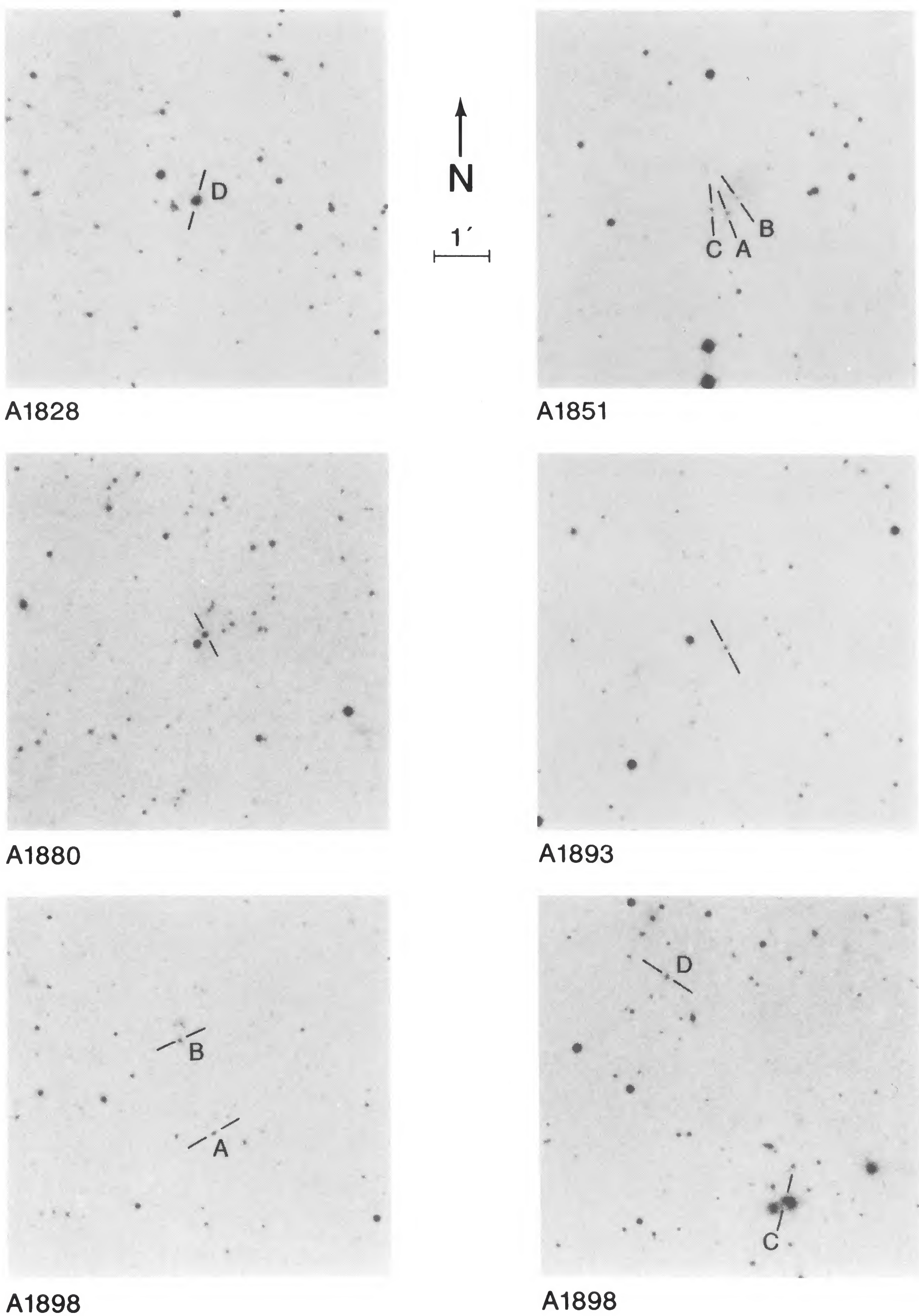
FIG. 2—*Continued*

1993ApJS...87..135O



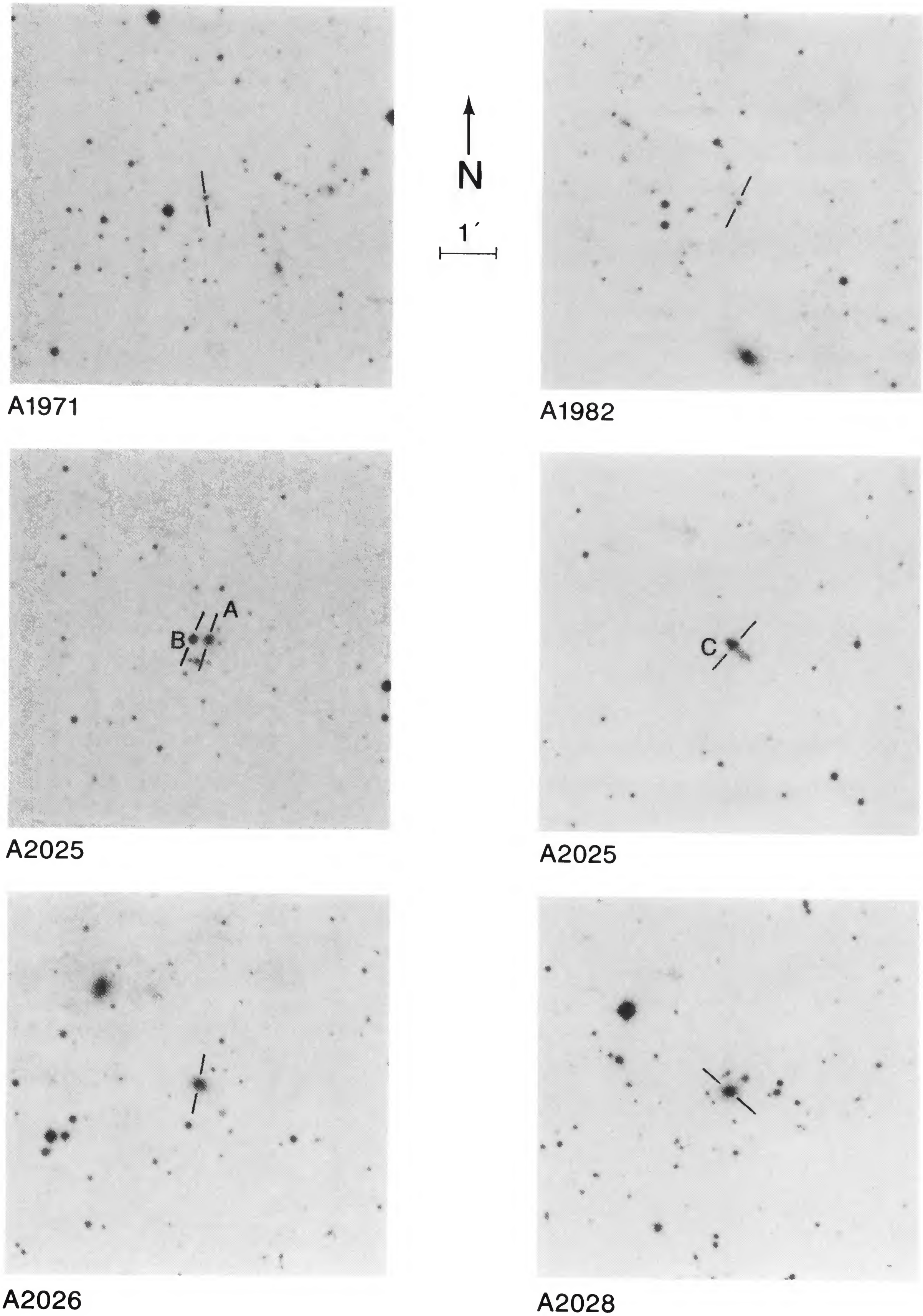
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



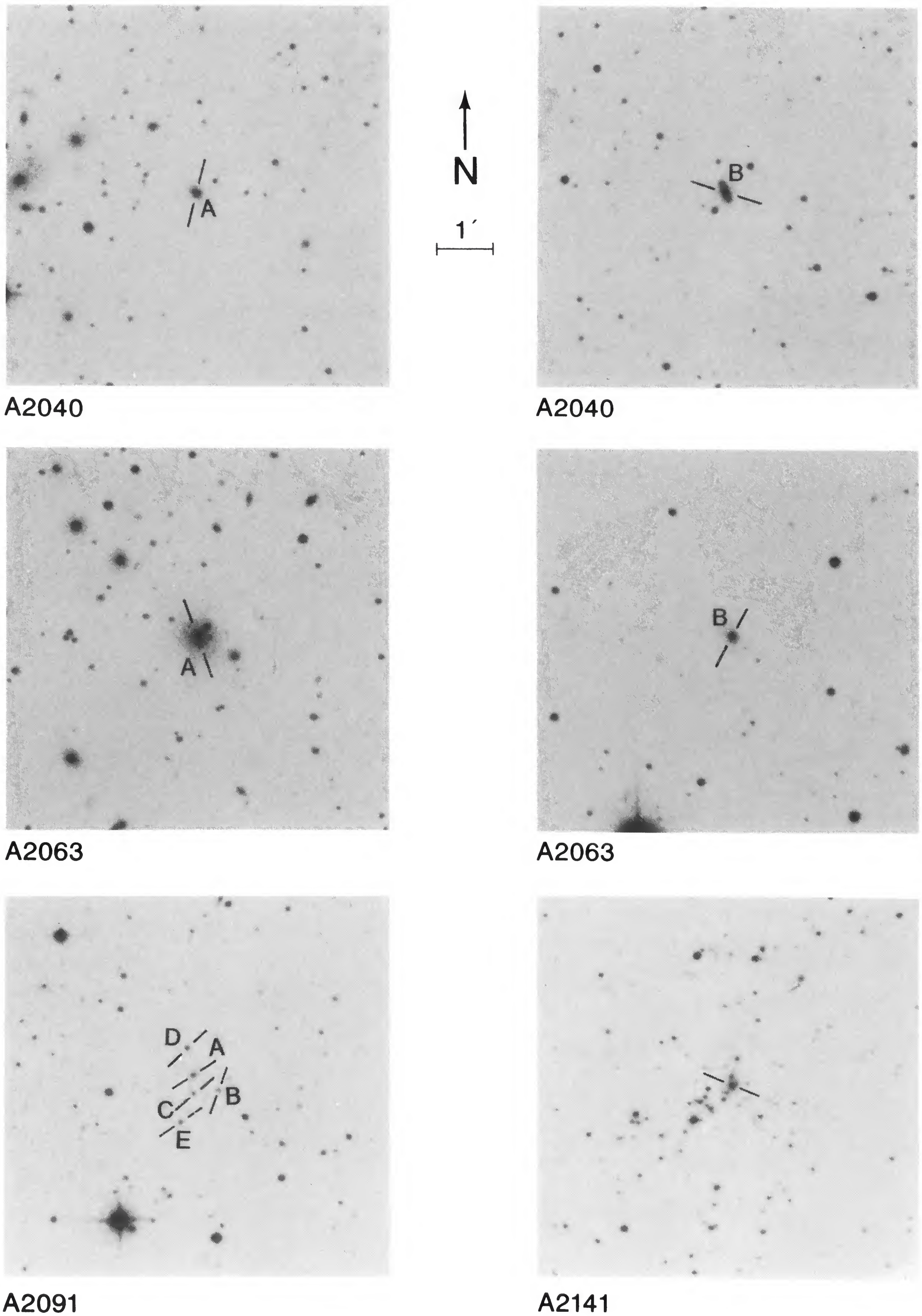
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



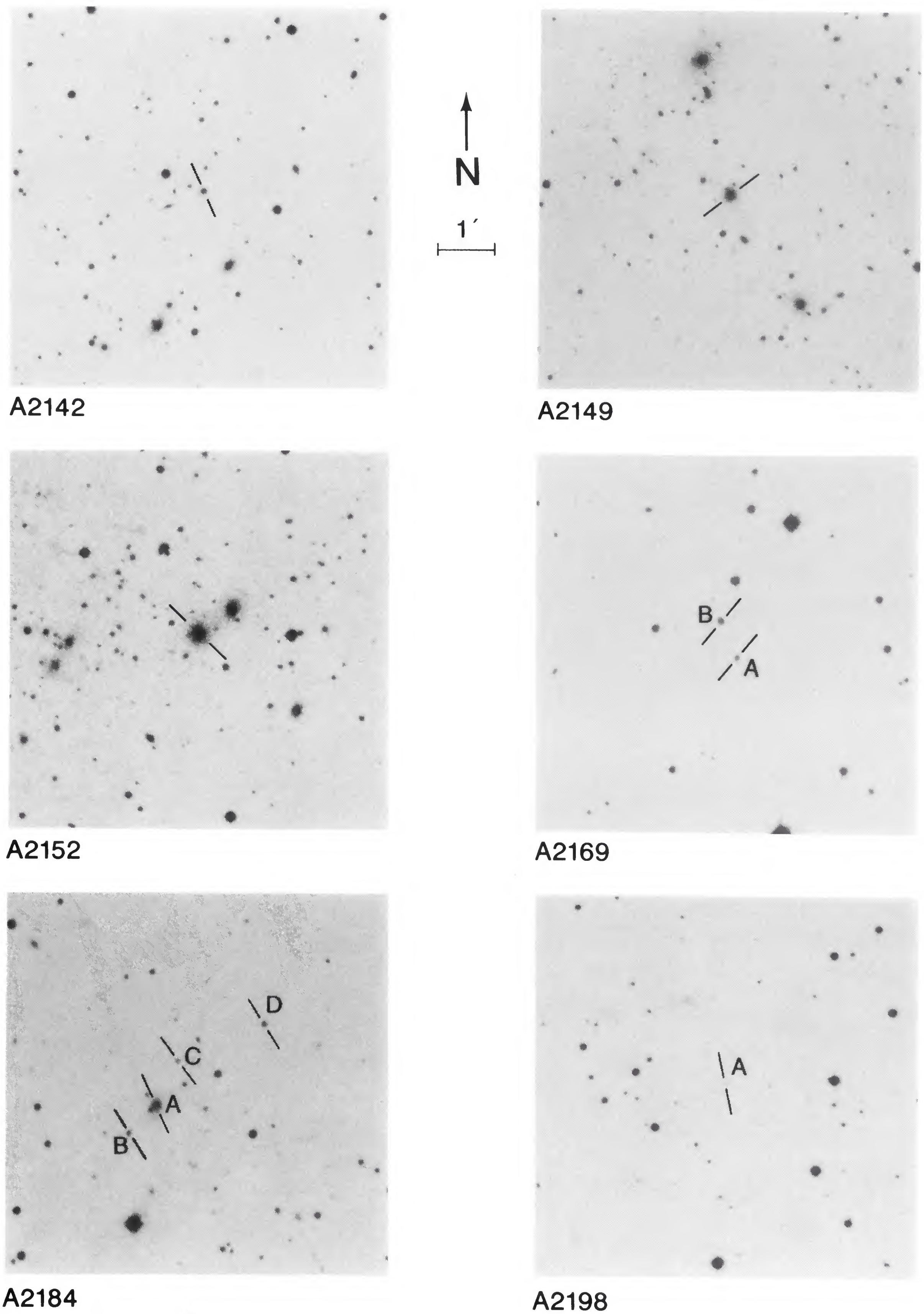
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



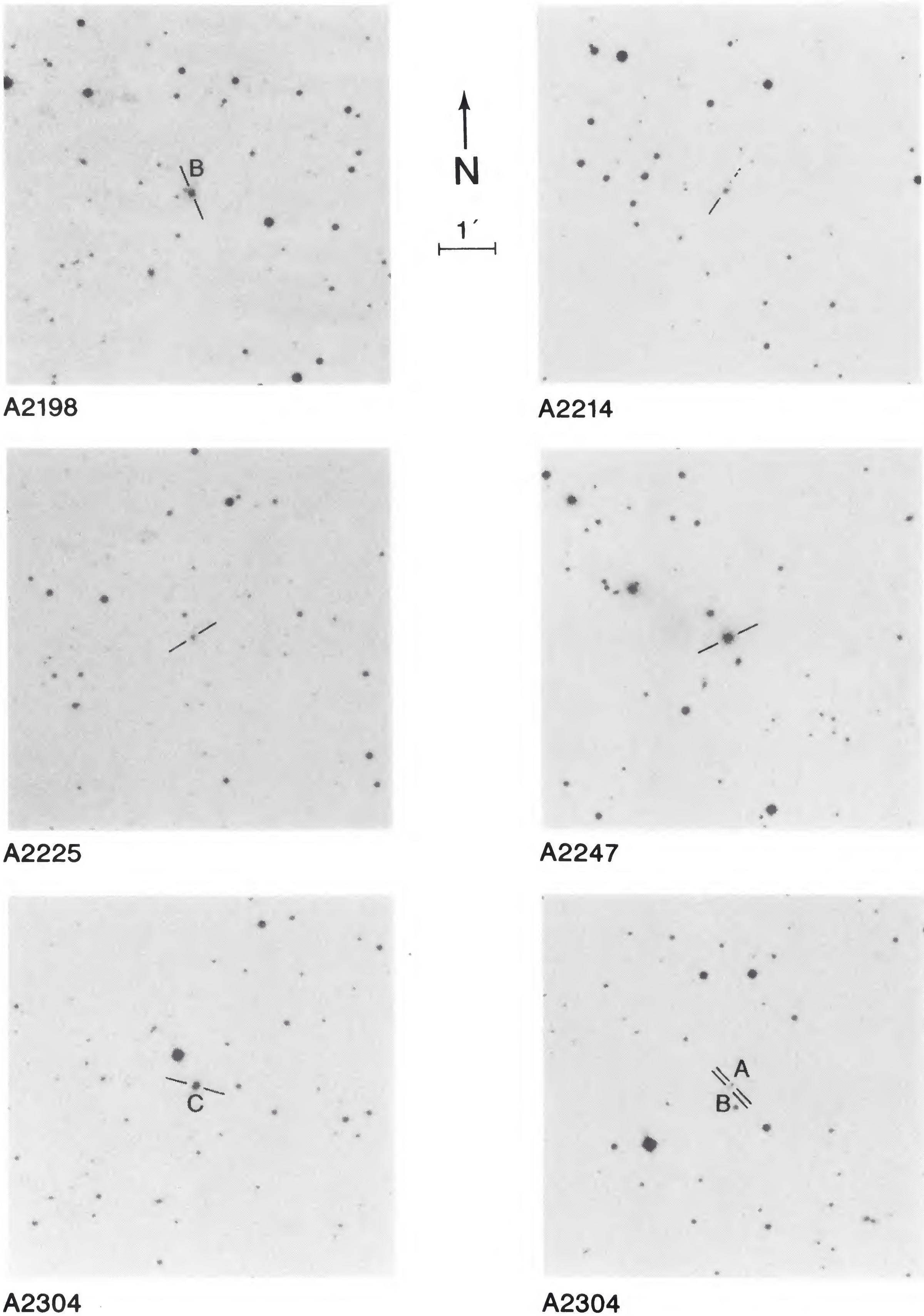
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



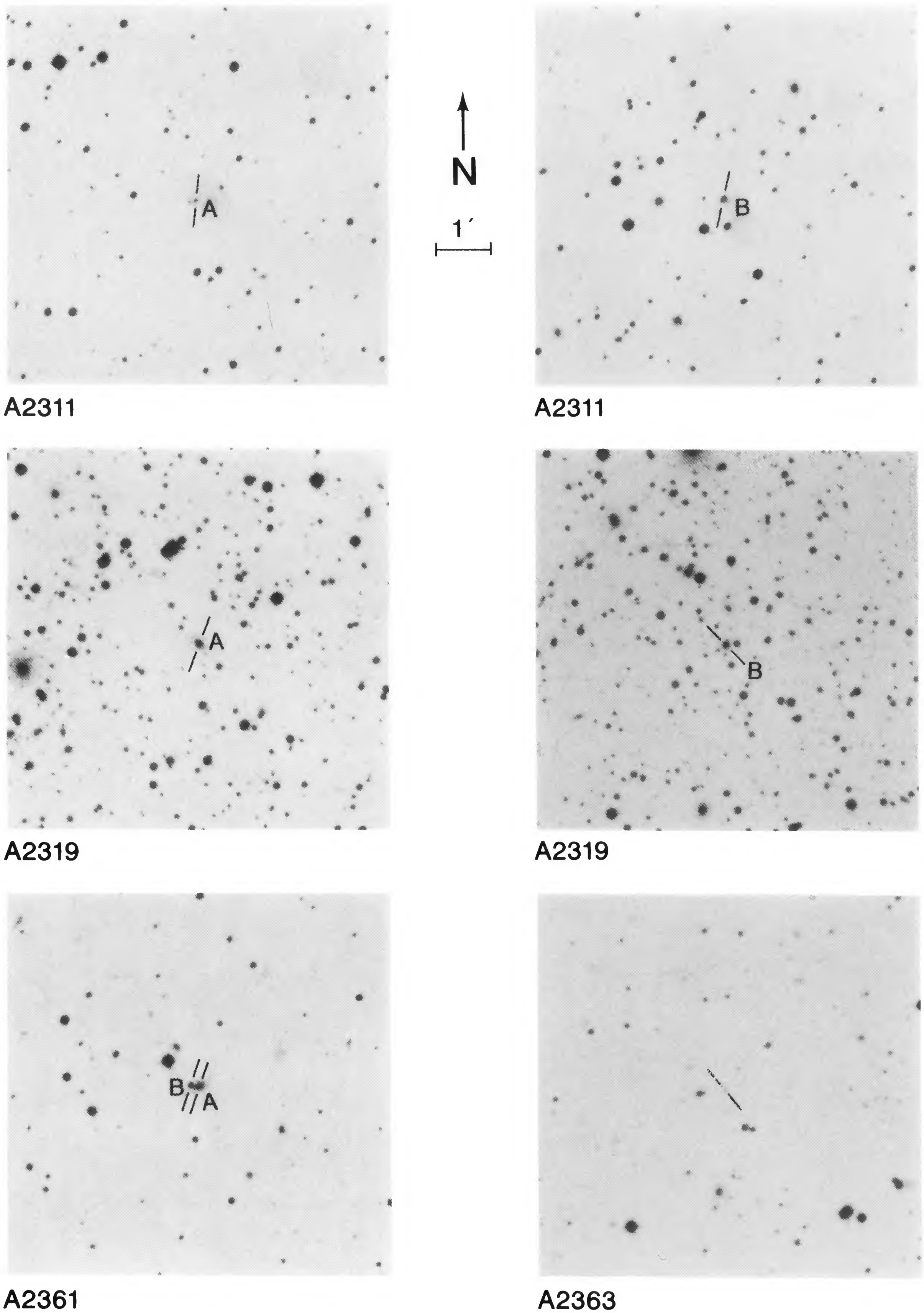
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



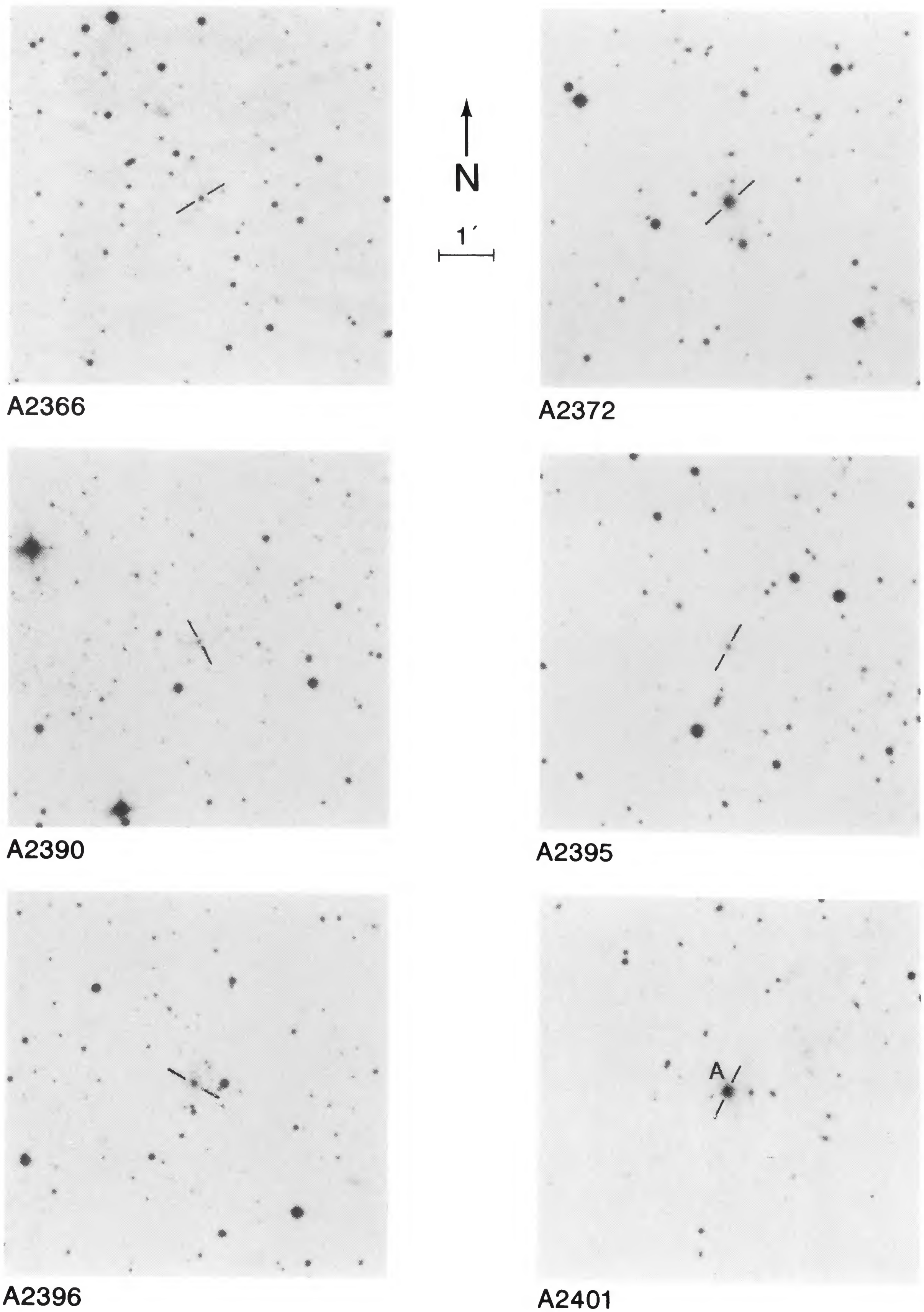
OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

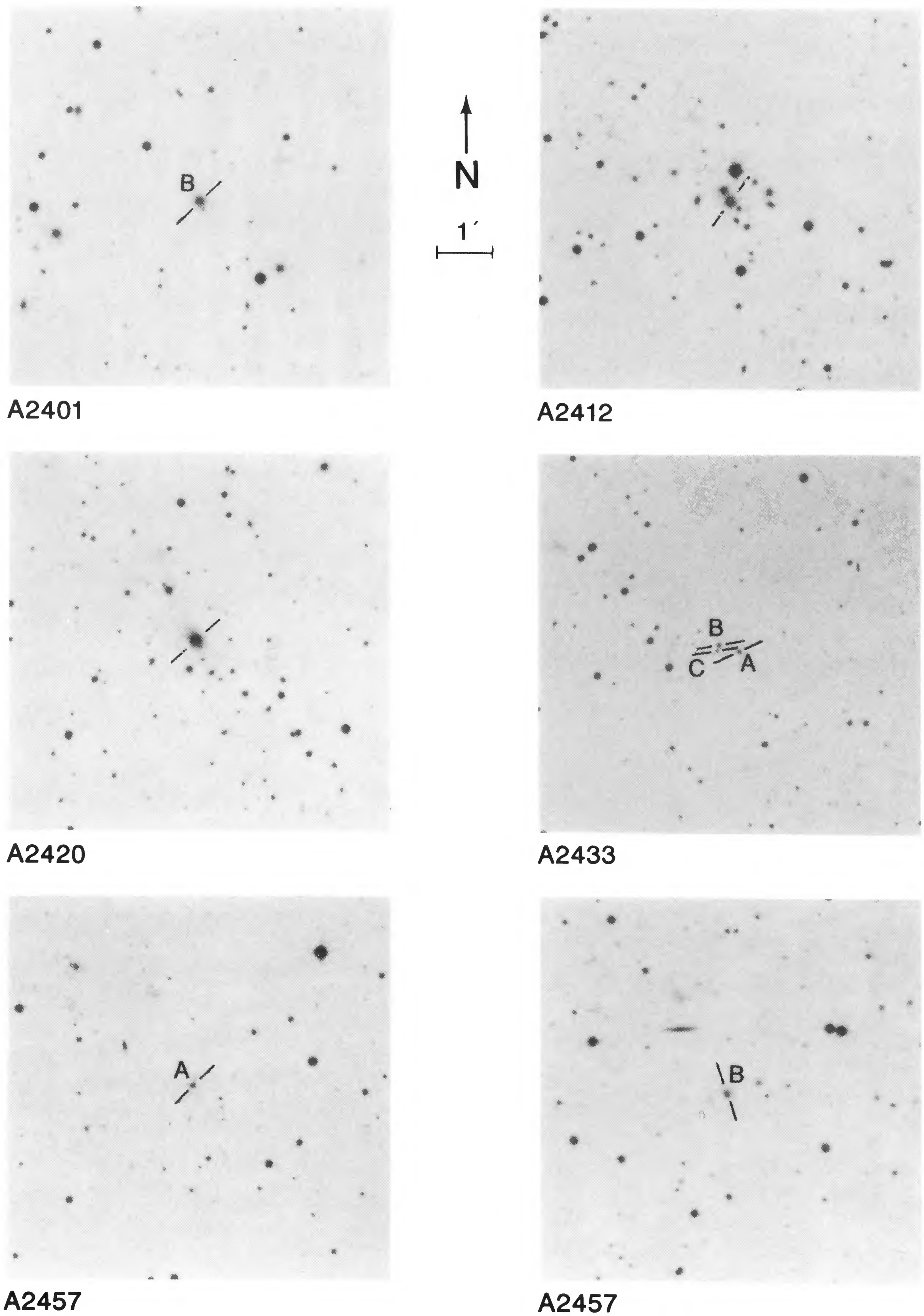
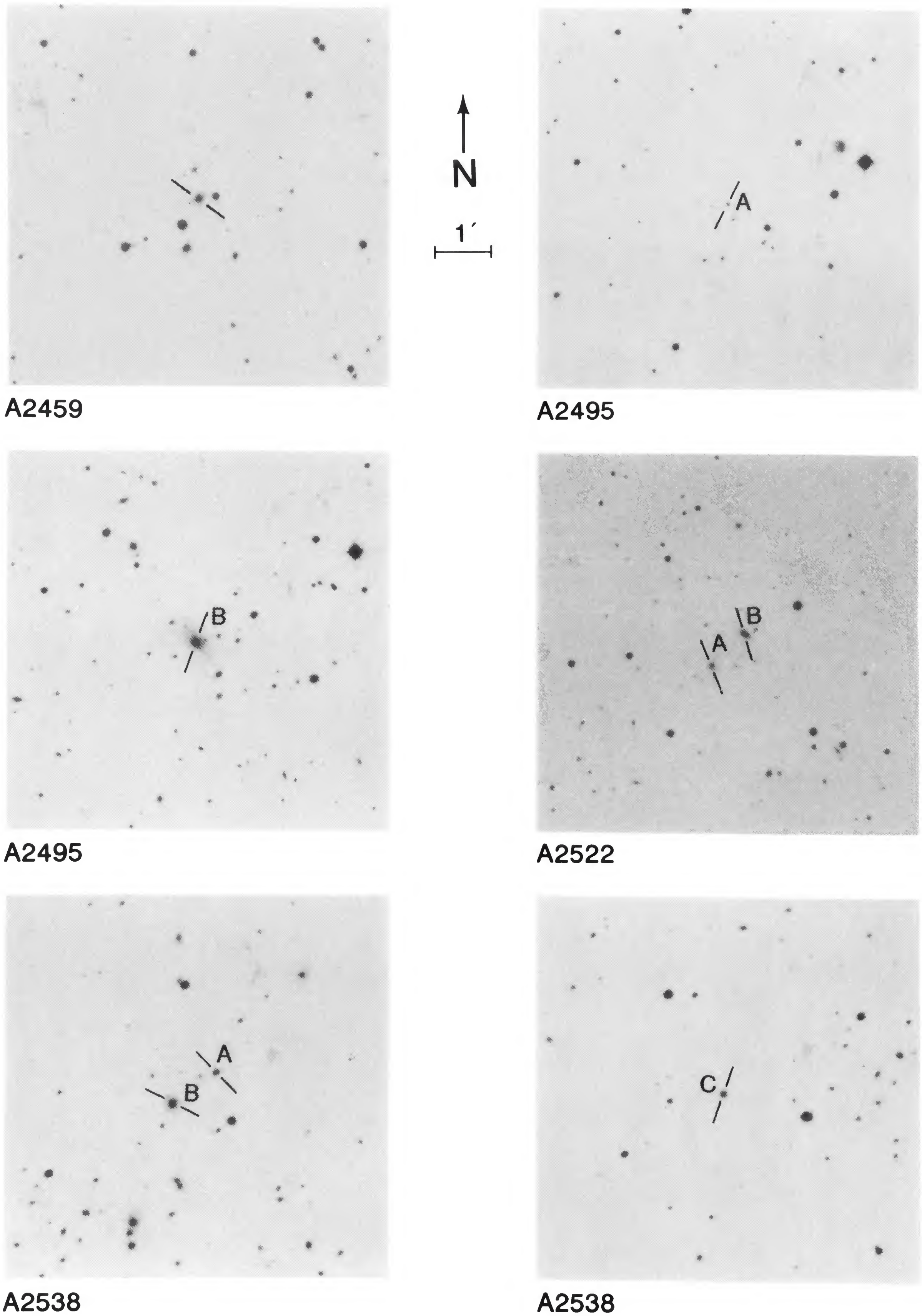


Fig. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*

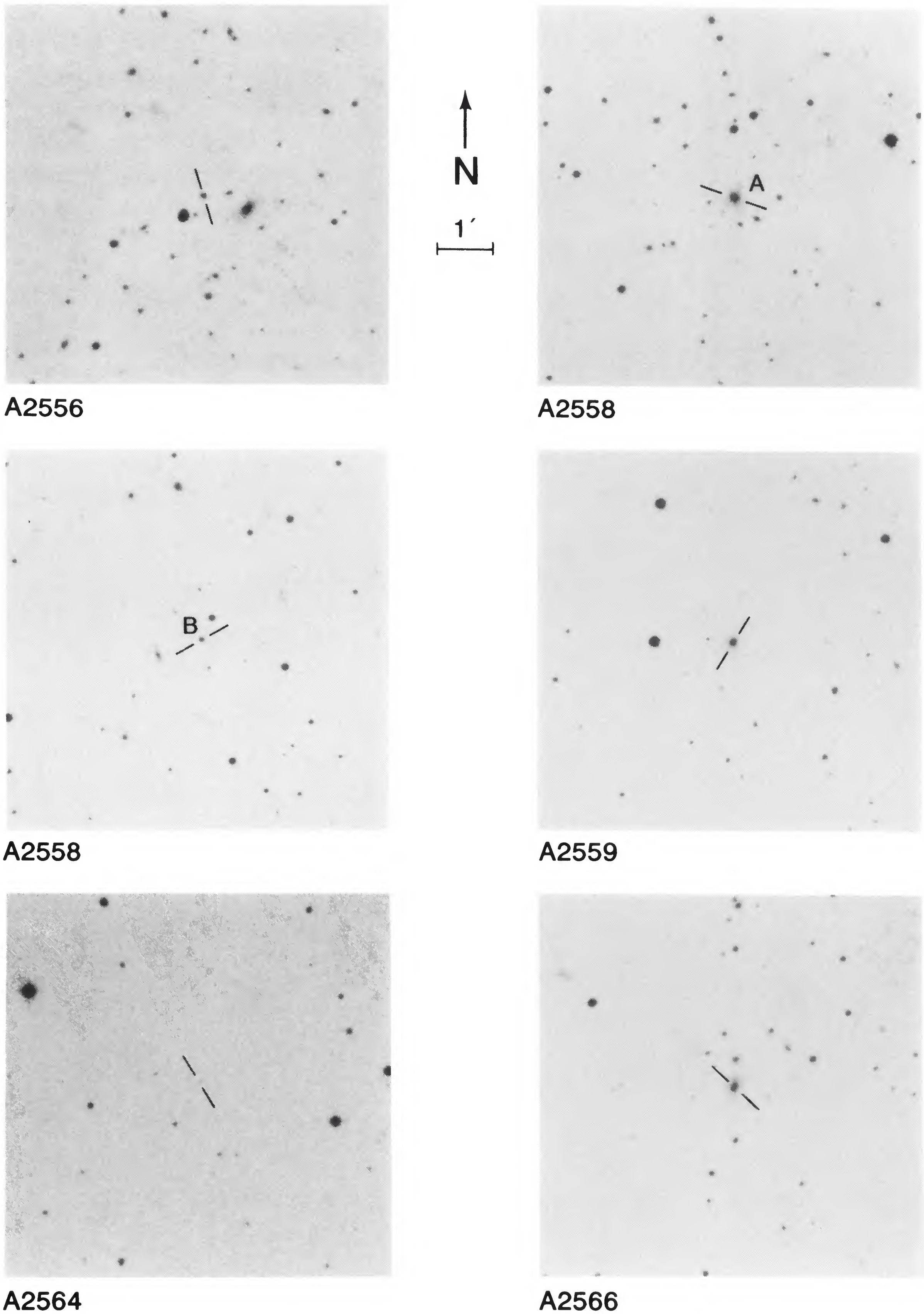
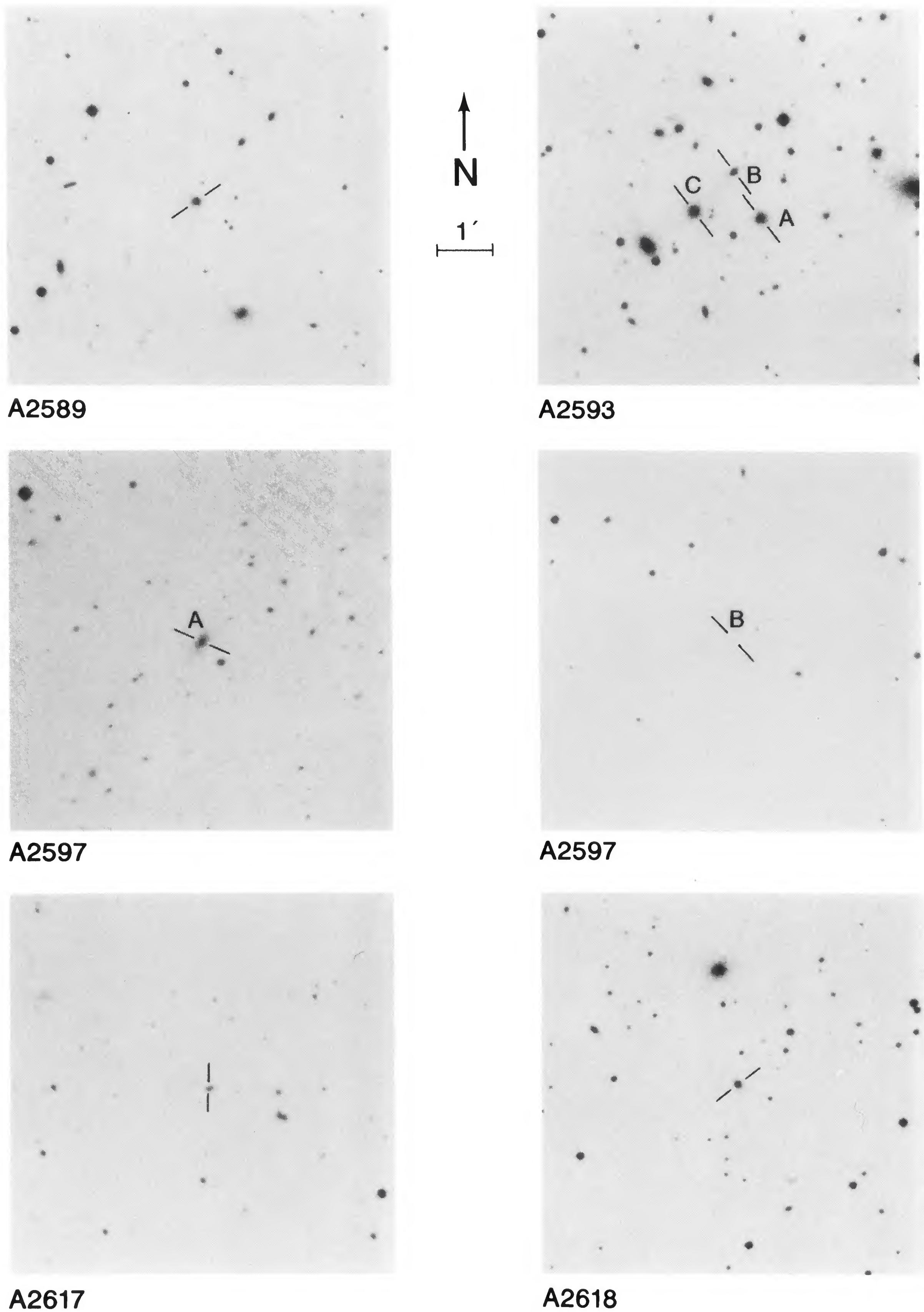
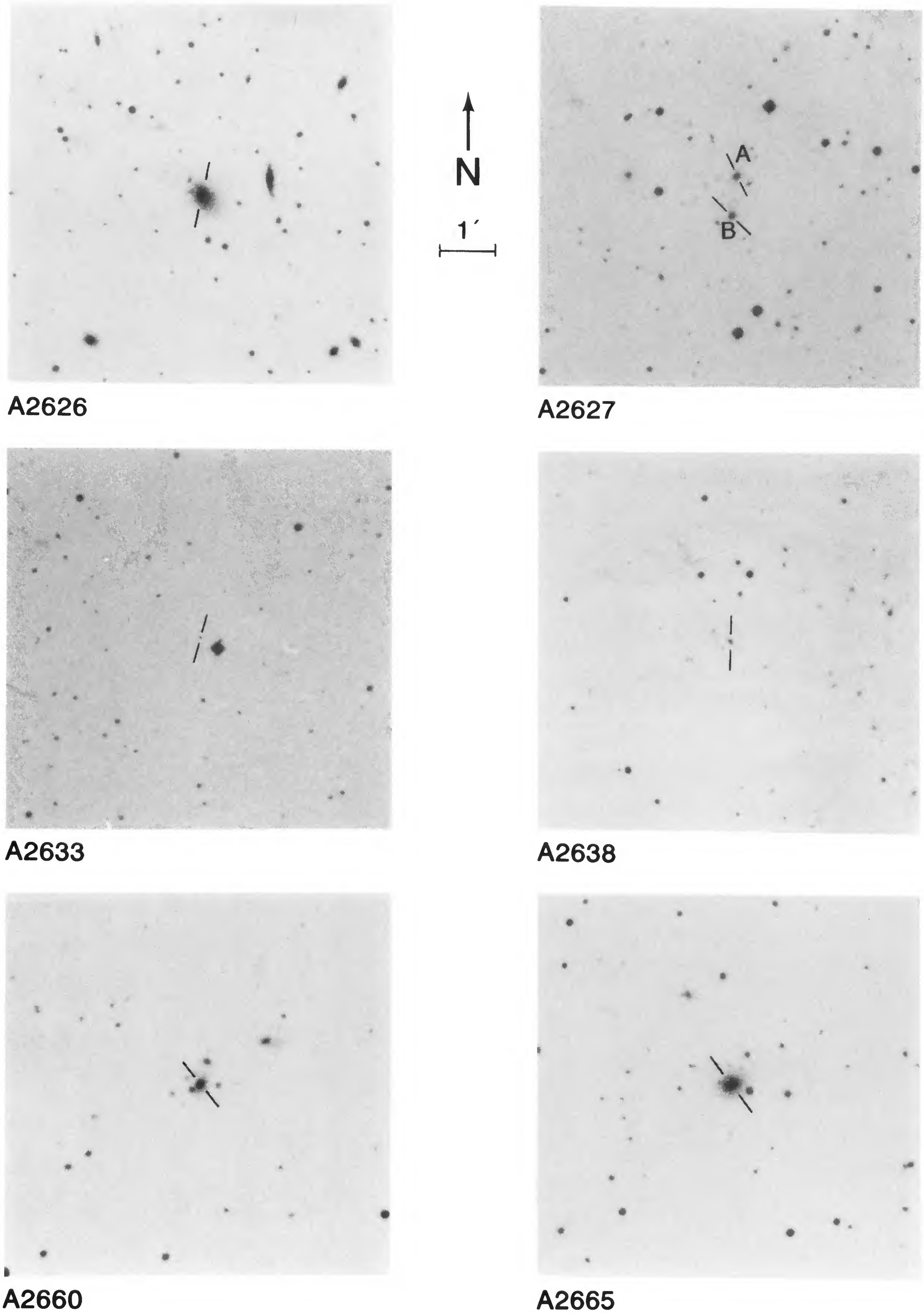


FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*



OWEN, WHITE, & GE (see 87, 178)

FIG. 2—*Continued*