TABLE 1

Compact X-ray/Radio Sources in the NEP

Radio Data					X-ray Data						Optical Data				Notes
VLA Source	α_{2000}	δ_{2000}	$S_{1.5}$	±	ROSAT source	Δ	Loc	MaxL	F_x	±	Class	Δα	Δδ	B	
1732.9+6533	17 32 54.8	65 33 26.7	1057.9	51.1	RXS J173254.8+653318	8	o	73	37.4	4.9	S	-6	-2	17.6	1
1738.0+6654	17 38 2.2	66 54 14.9	1.4	0.2	RXS J173803.3+665343	32	o	28	17.5	3.4	E	···	···	>22.5	
1743.8+6544	17 43 48.9	65 44 23.9	20.3	0.9	RXS J174349.4+654418	6	i	8	13.5	5.1	S	0	0	21.5 b	
1747.2+6813	17 47 12.4	68 13 17.4	2.7	0.2	RXS J174711.5+681316	5	o	7	6.9	2.7	E	···	···	>22.5	2
1747.2+6532	17 47 13.6	65 32 35.6	375.0	12.4	RXS J174710.5+653225	22	i	10	30.8	8.5	E	···	···	>22.5	3
1748.5+7005	17 48 32.8	70 5 51.0	711.6	21.7	RXS J174833.1+700554	4	o	345	126.6	8.9	S	0	-1	17.5 b	4
1748.6+6842	17 48 38.2	68 42 17.4	2.5	0.3	RXS J174837.9+684220	3	o	98	38.2	4.8	G	0	-3	16.3	5
1751.5+7013	17 51 31.8	70 13 21.6	29.2	1.3	RXS J175131.5+701332	10	o	17	17.8	4.5	E	···	···	>22.5	
1753.1+6746	17 53 6.0	67 46 57.7	76.4	2.9	RXS J175308.8+674642	21	i	23	22.5	5.9	G	3	-2	19.5 b	
1755.1+6519	17 55 5.3	65 19 58.2	1.2	0.1	RXS J175505.7+651954	4	i	585	193.8	14.3	G	2	-3	∼15.5 b	6
1755.3+6747	17 55 16.6	67 47 50.9	3.7	0.4	RXS J175518.0+674804	15	i	25	21.0	5.2	E	···	···	>22.5	
1758.8+6349	17 58 46.0	63 49 21.5	9.8	0.4	RXS J175841.3+634900	37	o	10	11.6	3.5	E	···	···	>22.5	
1759.3+6902	17 59 15.2	69 2 22.0	3.8	0.3	RXS J175919.1+690229	22	o	9	8.8	2.9	E	···	···	>22.5	7
1800.1+6636	18 0 7.1	66 36 54.3	30.6	1.0	RXS J180007.5+663652	3	i	115	13.4	1.5	G	1	1	14.6	8
1800.5+6705	18 0 29.1	67 5 49.9	5.8	0.3	RXS J180029.0+670548	1	i	32	11.5	2.4	S	-3	1	20.8 c	9
1802.2+6527	18 2 9.3	65 27 28.4	33.1	1.2	RXS J180209.6+652736	8	i	6	6.0	2.5	E	···	···	>22.5	
1803.0+6450	18 3 0.8	64 50 16.5	1.5	0.1	RXS J180301.6+645028	13	i	8	7.6	3.1	S	-3	1	20.5 b	
1805.2+6415	18 5 11.8	64 15 55.1	3.4	0.5	RXS J180508.6+641609	25	o	5	4.3	1.9	E	···	···	>22.5	
1805.7+6701	18 5 42.4	67 1 35.3	0.9	0.2	RXS J180541.6+670139	6	i	31	18.7	4.2	G	2	3	20.0 b	
1807.9+6509	18 7 53.9	65 9 40.5	2.5	0.2	RXS J180753.0+650952	13	i	7	9.9	4.4	S	1	2	>22.5	10
1808.8+6744	18 8 48.4	67 44 45.8	5.3	0.3	RXS J180847.9+674442	4	i	12	14.6	5.3	E	···	···	>22.5	
1812.1+6353	18 12 8.4	63 53 40.5	1.2	0.2	RXS J181207.1+635334	10	o	20	19.7	4.4	E	···	···	>22.5	
1815.2+6619	18 15 10.2	66 19 48.4	2.2	0.1	RXS J181508.9+661930	20	i	7	9.1	4.1	E	···	···	>22.5	11
1815.3+6507	18 15 20.1	65 7 13.5	52.4	1.7	RXS J181519.3+650712	5	i	12	28.8	8.5	S	-1	1	19.0 b	
1817.7+6824	18 17 44.2	68 24 25.2	12.1	0.5	RXS J181744.5+682432	7	o	134	92.5	8.1	G	1	0	20.0 b	12
1820.0+6636	18 19 57.2	66 36 14.8	5.0	0.2	RXS J181955.2+663619	13	o	36	18.1	3.4	S	-3	0	16.0 b	13
1820.3+6825	18 20 17.7	68 25 10.7	2.2	0.2	RXS J182014.7+682525	22	o	7	7.4	3.0	E	···	···	>22.5	
1823.9+6719	18 23 56.8	67 19 29.9	4.3	0.5	RXS J182355.0+671937	12	o	16	13.0	3.4	E	···	···	>22.5	

[1] 1732.9+6533 = 8C 1732+655 = 4C +65.21. Optical: 17.6 mag quasar with z = 0.856 (NED). As this radio source is off-axis with degraded VLA position, we accept the published quasar identification.

[2] 1747.2+6813 Optical: B = 20 mag stellar object lies $8''$N of the radio source.

[3] 1747.2+6532 = 8C 1747+655 = 4C 65.22. Optical: $R = 21.2$ mag galaxy with $z = 1.516$ (Kollgaard *et al.* 1995). Lacy *et al.* (1993) initially listed 4C 65.22 as a possible quasar at $z \simeq 1.5$, but Kollgaard *et al.* (1995) argue it is a radio galaxy. Its X-ray luminosity of $\sim 5 \times 10^{45}$ erg s^{-1} would then be extraordinarily high for either a broad-line radio galactic nucleus or an intracluster medium.

[4] 1748.5+7005 = S5 1749+70. Optical: Well-studied $V = 17.0$ mag (Rusk & Seaquist 1985) BL Lac object with z = 0.77 (NED).

[5] 1748.6+6842 = Mkn 507 = IRAS 17489+6843. Optical: B = 16.3 mag Seyfert 1 galaxy with z = 0.053 (Veron).

[6] 1755.1+6519 = IRAS F17549+6520. Optical: Seyfert 1 galaxy with z = 0.0803 (NED). The stated magnitude from the APM is probably too bright, COSMOS gives B = 17.5 (no published magnitude).

[7] 1759.3+6902 Optical: 19 mag galaxy lies $9''$SE of the radio source.

[8] 1800.1+6636 = NGC 6552 (CGCG 1800.1+6636). Optical: $V = 14.6$ Seyfert 2 galaxy with z = 0.026 (NED); *IRAS* source (2.5 Jy at 60μm and 3.1 Jy at 100 μm; Ashby *et al.* 1996).

[9] 1800.5+6705 X-ray: Steep X-ray spectrum. Optical: Approximately 17 mag stellar object lies $10''$S of the radio source.

[10] 1807.9+6509 Optical: detected on red plates ($R = 19.9a$) but not on blue.

[11] 1815.2+6619 Optical: B = 18 mag stellar object $12''$SW of the radio source.

[12] 1817.7+6824 Broad-band properties ($\log[f_x/f_r\ ]$ *vs.* $\log[f_o/f_r\ ]$, see Fig. 10) suggest this object may have a hidden AGN.

[13] 1820.0+6636 Optical: unusually bright but radio faint object, possibly a new AGN. It has not been studied.

TABLE 2

EXTENDED X-RAY/RADIO SOURCES IN THE NEP

Radio Data					X-ray Data						Optical Data				Notes
VLA Source	α_{2000}	δ_{2000}	$S_{1.5}$	$\pm$	ROSAT source	Δ	Loc	MaxL	F_x	$\pm$	Class	$\Delta\alpha$	$\Delta\delta$	B	
1741.3+6508	17 41 16.0	65 8 6.0	2.8	0.3	RXS J174114.3+650748	21	o	20	16.4	4.0	E	···	···	>22.5	1
1743.1+6732	17 43 7.8	67 32 32.5	17.8	0.6	RXS J174312.1+673220	27	i	7	11.5	4.8	G	6	-1	16.0 c	2
1743.4+6342	17 43 23.5	63 42 57.8	214.4	9.5	RXS J174328.0+634145	78	o	69	59.8	7.0	Gp	···	···	21.5	3
1744.7+6750	17 44 42.9	67 50 47.1	38.1	1.5	RXS J174444.3+675035	14	i	5	10.0	4.9	S	-4	-1	21.0 a	4
1746.1+6421	17 46 6.4	64 21 49.5	237.4	7.4	RXS J174605.0+642150	9	o	10	9.5	3.1	S	1	0	21.0 b	5
1747.3+6701	17 47 20.7	67 1 23.5	48.4	1.5	RXS J174721.6+670211	48	i	28	18.5	4.7	S	5	40	20.5 c	6
1747.4+6702	17 47 22.8	67 2 31.0	···	···	RXS J174721.6+670211	21	i	28	18.5	4.7	···	···	···	···	6
1747.5+6345	17 47 30.9	63 45 28.1	77.3	3.2	RXS J174734.0+634511	27	o	10	20.0	5.1	G	-3	-3	20.0 b	7
1748.4+6404	17 48 23.0	64 4 5.6	1.4	0.1	RXS J174822.8+640340	25	o	17	15.7	3.8	S	1	2	17.5 b	8
1748.5+6404	17 48 27.6	64 4 5.8	···	···	RXS J174822.8+640340	40	o	17	15.7	3.8	···	···	···	···	8
1749.4+6631	17 49 21.5	66 31 52.4	6.7	0.2	RXS J174918.3+663146	20	i	16	11.2	3.4	E	···	···	>22.5	9
1749.8+6824	17 49 48.1	68 24 1.4	···	···	RXS J174948.1+682325	36	o	8	7.8	2.8	···	···	···	···	10
1749.8+6823	17 49 50.5	68 23 11.0	7.7	0.3	RXS J174948.1+682325	19	o	8	7.8	2.8	Gp	···	···	16.	10
1751.1+6531	17 51 6.6	65 31 52.5	0.6	0.1	RXS J175107.7+653204	13	i	7	8.6	1.7	Gp	···	···	15.4	11
1751.4+6719	17 51 25.9	67 19 27.8	2.4	0.2	RXS J175130.2+671910	31	i	13	38.4	7.7	Gp	9	5	17.7 c	12
1751.6+6719	17 51 35.2	67 19 43.7	···	···	RXS J175130.2+671910	45	i	13	38.4	7.7	···	···	···	···	12
1751.9+6454A	17 51 51.8	64 54 50.4	···	···	RXS J175151.3+645511	21	i	5	9.6	7.2	···	···	···	···	13
1751.9+6454B	17 51 53.6	64 54 18.5	129.7	4.1	RXS J175151.3+645511	55	i	5	9.6	7.2	S	4	0	19.0 a	13
1752.0+6551	17 51 58.8	65 51 23.4	36.9	1.2	RXS J175157.3+655128	10	i	57	34.9	6.5	G	···	···	17.0	14

[1] 1741.3+6508 Radio: possible triple, 24″separation.

[2] 1743.1+6732 Radio: extended about 30″, possibly with strong core. Optical: Uncatalogued 16 mag galaxy, possibly elliptical with companion; ∼ dozen galaxies >18 mag within 10′.

[3] 1743.4+6342 = 8C 1743+637. X-ray: extended (ML_{ext} = 16.8). Radio: extended, 30″; located in the outer region of the extended X-ray structure. Optical: 21.5 mag galaxy in the region of Abell 2280 (z = 0.326, Gioia *et al.* 1995). However, Lacy *et al.* (1993) suggest this galaxy is at much higher redshift. Abell 2280 has Richness Class 0, Bautz-Morgan Class II-III, and Distance Class 6 (Abell *et al.* 1989). Cluster of very faint galaxies seen on POSS I (Fig. 5a).

[4] 1744.7+6750 Radio: extended, 30″.

[5] 1746.1+6421 = 8C 1745+644. Radio: extended, 24″. Optical: stellar object B = 21.5a (-4.0, -0.7). 21.9 mag quasar with z = 1.228 (NED).

[6] 1747.3+6701 and 1747.4+6702 Radio: double, 66″separation. Optical: B = 20.5 stellar object coincides with the X-ray position; both lie midway between the radio components.

[7] 1747.5+6345 Radio: possibly extended, 24″.

[8] 1748.4+6404 and 1748.5+6404 Radio: probably double, 28″. Optical: possibly merged stellar objects. COSMOS magnitude is B = 18.9.

[9] 1749.4+6631 Radio: double, 36″separation, or core of a core-dominated triple, 95 arcsecond extent oriented SE-NW. Optical: B∼19 optical objects 24″away from the core to the south and west.

[10] 1749.8+6824 and 1749.8+6823 Radio: possible double, 54″separation, and 13 mJy compact radio source (1749.9+6824) to the NE. Optical: Galaxy group. The NE radio source is associated with CGCG 1750.1+6825, 15.2 mag with z = 0.05122 (NED). 1749.8+6824 is associated with MCG +11-22-005, 17 mag. 1749.8+6823 is associated with KUG 1750+683A, 16 mag (NED). The RASS source is from the outer region where extent measurements are not accurate. (Fig. 5b).

[11] 1751.1+6531 = NGC 6505 (CGCG 1751.1+6533). X-ray: extended(ML_{ext} = 16.3). Optical: E/SO galaxy with B = 15.4, z = 0.0389 (NED) with galaxy group (Henry *et al.* 1995; Fig. 5c).

[12] 1751.4+6719 and 1751.6+6719 X-ray: extended (ML_{ext} = 15.1). Radio: triple structure; 1751.4+6719 is the apparent core, with lobes 1751.6+6719 and 1751.2+6719 (Kollgaard *et al.* 1994). Optical: Galaxy group. The central radio source is associated with two B = 17.7 c galaxies. COSMOS classifies the nearby 18 mag objects as stellar, but locates many objects near the plate limit. (Fig. 5d).

[13] 1751.9+6454A and 1751.9+6454B = 8C 1751+649. Radio: double, 36″separation. Optical: The 19.0 a mag stellar object lies between the radio sources.

[14] 1752.0+6551 = 7C 1751+6551 Radio: double, 30″separation. Optical: 17.0 mag galaxy (NED).

TABLE 2

(CONTINUED)

Radio Data					X-ray Data						Optical Data				Notes
VLA Source	α_{2000}	δ_{2000}	$S_{1.5}$	±	ROSAT source	Δ	Loc	MaxL	F_x	±	Class	Δα	Δδ	B	
1753.6+6634	17 53 36.4	66 34 37.1	357.2	15.6	RXS J175334.9+663440	9	i	7	4.8	1.9	E	···	···	>22.5	15
1753.6+6542	17 53 38.5	65 42 18.7	453.4	17.9	RXS J175341.7+654251	38	i	38	10.6	5.2	G	···	···	19.7 b	16
1753.8+6542	17 53 45.2	65 42 57.8	···	···	RXS J175341.7+654251	23	i	38	10.6	5.2	···	···	···	···	16
1754.1+6452	17 54 7.3	64 52 3.1	147.8	4.9	RXS J175405.6+645201	11	i	6	8.7	3.9	G	2	0	20.0 b	17
1755.4+6803	17 55 24.9	68 3 12.9	6.3	0.3	RXS J175514.7+680324	58	i	8	87.7	13.3	Gp	···	···	>22.5	18
1755.7+6754	17 55 43.5	67 54 10.8	1.8	0.1	RXS J175546.7+675421	21	i	8	98.8	14.6	Gp	-4	-2	∼16. c	19
1756.5+6512	17 56 29.2	65 12 50.1	7.6	0.4	RXS J175632.2+651233	25	i	14	13.2	4.3	Gp	···	···	15.6	20
1758.6+6637	17 58 33.5	66 37 58.9	939.4	31.8	RXS J175833.4+663758	1	i	169	19.6	1.8	PN	···	···	8.9	21
1801.2+6902	18 1 14.5	69 2 40.4	202.7	6.3	RXS J180115.3+690244	6	o	8	7.5	2.7	S	0	3	19.4	22
1802.0+6657	18 1 57.8	66 57 14.7	23.0	0.7	RXS J180155.5+665540	95	i	11	2.9	0.9	E	···	···	>22.5	23
1803.9+6548	18 3 54.0	65 48 25.0	43.1	1.7	RXS J180353.9+654827	3	i	152	57.5	6.6	G	1	0	20.5 b	24
1805.3+6621	18 5 16.3	66 21 9.8	7.0	0.3	RXS J180515.8+662053	16	i	6	5.9	2.2	E	···	···	>22.5	25
1805.5+6535	18 5 30.5	65 35 22.7	3.4	0.1	RXS J180532.5+653521	13	i	7	13.8	4.8	S	5	-3	20.0 c	26
1806.8+6536	18 6 46.4	65 36 37.1	11.1	0.4	RXS J180651.6+653740	71	i	34	47.5	8.3	Gp	5	2	20.0 c	27
1808.1+6605	18 8 3.8	66 5 33.3	17.7	0.6	RXS J180803.4+660531	3	i	17	11.1	3.2	E	···	···	>22.5	28

[15] 1753.6+6634 = 7C 1753+6635 Radio: possible double with 1753.6+6635, 72″separation. Optical: Two B = 18.0 c stellar objects lie within the radio structure, but identification is unclear.

[16] 1753.6+6542 and 1753.8+6542 = 8C 1753+657. Radio: double, 54″separation. Optical: B = 19.9, R = 17.4 mag quasar with z = 0.148 (Lacy *et al.* 1995, Kock *et al.* 1996). Quasar and RASS source lie between the radio peaks.

[17] 1754.1+6452 Radio: possibly extended, 36″.

[18] 1755.4+6803 X-ray: Gioia & Luppino (1994) note slightly extended X-ray emission from the EMSS cluster MS1754.9+6803 (z = 0.077), but it is uncertain whether the RASS-VLA source is physically related to the EMSS cluster. Radio: double, 18″separation. Optical: Galaxy group. (Fig. 5e).

[19] 1755.7+6754 X-ray: extended (ML_{ext} = 31.0). Radio: faint. Optical: Erroneously classified by COSMOS as a 16.4 mag star surrounded by a cluster of 21 mag objects. POSS I image indicates an elliptical galaxy with a diffuse halo ≃40″in extent. Possible cD galaxy in cluster. (Fig. 5f).

[20] 1756.5+6512 = CGCG 1756.3+6513. X-ray: extended (ML_{ext} = 26.5). Radio: coincides with bright spot in complex X-ray structure. Optical: B = 15.6 E/S0 galaxy with z = 0.0263 (NED) in group (Henry *et al.* 1995). (Fig. 5g).

[21] 1758.6+6637 = NGC 6543 = IRAS 17584+6638. X-ray: Kreysing *et al.* 1992 found extended X-ray emission. Radio: extended, 36″. Optical: Galactic planetary nebula.

[22] 1801.2+6902 = 8C 1801+690. Radio: extended, 24″. Optical: 19.4 mag quasar with z = 1.271 (NED).

[23] 1802.0+6657 Radio: double with 1802.1+6657, separation 54″with marginally resolved core. Optical: No object found near core. Contour map in Kollgaard *et al.* (1994).

[24] 1803.9+6548 X-ray: possibly extended (ML_{ext} = 6.8). Radio: possibly extended, 36″. The low likelihood of X-ray extension and precisely coincident radio and X-ray centroids suggest it is an unresolved active nucleus rather than a group candidate.

[25] 1805.3+6621 Radio: possibly extended, 30″. Optical: 17.5 c mag stellar object located 12″NW of the radio source.

[26] 1805.5+6535 Radio: double or triple, 30″separation. Contour map in Kollgaard *et al.* (1994). Optical: B = 20.0 c stellar object coincident with brightest radio component. Several other faint objects lie within 1′.

[27] 1806.8+6536 X-ray: extended (ML_{ext} = 10.8). Radio: unresolved. Optical: Several 19-20 mag objects lie within 1′. Possible distant galaxy group. (Fig. 5i).

[28] 1808.1+6605 = 7C 1807+6604. Radio: double, 24″separation. Optical: No optical object lies coincident with, or between, the radio components. An extremely red star lies ≃20″S of the radio source, and is associated with a stellar *IRAS* source (0.42 Jy at 12μm, 0.12 Jy at 25μm; Hacking & Houck 1987). The star, listed in the HST Guide Star Catalog (GSC 4213 596, V = 9.4, 18 08 03.3, +66 05 10), has recently been classified as a K star by Kuemmel *et al.* (1998, private communication) using the 2.5m Guillermo Haro telescope of INAOE, Mexico.

TABLE 2

(CONTINUED)

Radio Data					X-ray Data						Optical Data				Notes
VLA Source	α_{2000}	δ_{2000}	$S_{1.5}$	±	ROSAT source	Δ	Loc	MaxL	F_x	±	Class	Δα	Δδ	B	
1808.8+6634	18 8 49.7	66 34 30.4	26.2	0.8	RXS J180850.2+663426	5	i	134	50.6	6.4	S	-1	-1	17.5 b	29
1809.0+6704	18 9 0.6	67 4 25.4	17.7	0.6	RXS J180859.7+670427	5	i	20	19.3	5.3	S	1	0	20.5 b	30
1815.4+6806	18 15 24.0	68 6 26.6	381.4	12.2	RXS J181521.5+680639	19	i	54	62.2	12.6	G	5	5	17.8	31
1816.2+6627	18 16 11.6	66 27 3.7	3.1	0.1	RXS J181611.2+662713	10	i	6	10.1	4.8	G	26	33	18.5 c	32
1818.1+6349	18 18 7.8	63 49 51.6	20.9	1.0	RXS J181805.8+634948	14	o	6	6.5	2.9	E	...	...	>22.5	33
1819.6+6857	18 19 37.6	68 57 25.1	...	...	RXS J181951.4+685704	77	o	24	93.2	11.2	...	...	...	...	34
1819.6+6856	18 19 38.4	68 56 30.8	...	...	RXS J181951.4+685704	78	o	24	93.2	11.2	...	...	...	...	34
1819.7+6856	18 19 42.4	68 56 52.6	735.3	22.1	RXS J181951.4+685704	50	o	24	93.2	11.2	Gp	...	...	15.0	34
1821.8+6818	18 21 49.0	68 18 48.7	...	...	RXS J182155.7+681852	38	o	15	14.9	4.3	...	...	...	...	35
1822.0+6818	18 21 59.3	68 18 43.4	185.9	6.2	RXS J182155.7+681852	22	o	15	14.9	4.3	S	1	-1	21.0 c	35
1822.1+6637	18 22 3.5	66 37 14.8	10.7	0.5	RXS J182203.6+663713	1	o	6	4.9	2.2	G	...	...	14.0	36
1826.6+6706	18 26 37.4	67 6 44.4	107.6	3.6	RXS J182636.9+670645	3	o	38	34.0	5.5	G	0	0	17.7	37

[29] 1808.8+6634 Radio: possibly extended, 36″.

[30] 1809.0+6704 Radio: may be northern component of triple source with 1808.9+6703 and 1809.0+6702, extent 54″. Contour map in Kollgaard *et al.* (1994).

[31] 1815.4+6806 = 8C 1815+680 = 4C 68.20. Radio: extended, 48″. Optical: R = 17.8 mag broad line radio galaxy at z = 0.23 (Veron). Numerous B∼20 stars or galaxies nearby; radio galaxy may be a member of a group, but X-ray source unlikely to be group emission.

[32] 1816.2+6627 Radio: extended 36″SE-NW. Contour map in Kollgaard *et al.* (1994). Optical: The NW portion coincides with the V = 10.5 K0 star BD +66°1092 (SIMBAD). The SE portion coincides with a B = 18.5 c galaxy. The table refers to the latter identification.

[33] 1818.1+6349 Radio: This source appears to be the SE lobe of a multiple-component source 3-4′in extent. Contour map in Kollgaard *et al.* (1994). Optical: Several B = 17-18 stars or galaxies lie around the radio sources, one of which coincides with radio component 1817.8+6351. Given these uncertainties, we classify this as an empty field.

[34] 1819.6+6857, 1819.6+6856 and 1819.7+6856 = 4C 68.21. X-ray: extended (ML_{ext} = 28.9). Radio: triple source with 54″extent, head-tail with core morphology; located in the outer region of the extended X-ray structure. Optical: 15.0 mag galaxy in Abell 2304 with z = 0.0881 (NED) is coincident with easternmost radio component (radio core). Abell 2304 has Richness Class 0, Bautz-Morgan Class II, and Distance Class 5 (Abell *et al.* 1989). (Fig. 5j).

[35] 1821.8+6818 and 1822.0+6818 Radio: probable double, 60″separation. Optical: a B = 21.0 stellar object coincides with the brighter component.

[36] 1822.1+6637 = NGC 6636 = VV 679 = IRAS 18220+6635. Radio: extended 24″, brightest at center and located between the optical galaxies. Optical: 14 mag SBc Seyfert 2 galaxy with z = 0.0133 with 16 mag compact galaxy companion (NED).

[37] 1826.6+6706 = 7C 1826+6704. Radio: possibly extended, 48″. Optical: 17.7 mag galaxy with z = 0.287 (NED).

TABLE 3

Possible Additional X-ray/Radio Sources in the NEP

Radio Data					X-ray Data						Optical Data				Notes
VLA Source	α_{2000}	δ_{2000}	$S_{1.5}$	±	ROSAT source	Δ	Loc	MaxL	F_x	±	Class	$\Delta\alpha$	$\Delta\delta$	B	
1739.2+6907	17 39 14.1	69 7 43.3	2.7	0.2	RXS J173917.3+690828	48	o	5	8.0	3.3	E	···	···	>22.5	
1744.9+6642	17 44 53.5	66 42 53.7	29.8	1.1	RXS J174458.3+664339	54	i	6	7.9	3.8	E	···	···	>22.5	
1745.7+6620	17 45 44.0	66 20 14.6	2.5	0.2	RXS J174546.7+662056	44	i	6	7.5	3.4	E	···	···	>22.5	
1747.7+6345	17 47 42.4	63 45 5.9	1.2	0.2	iRXS J174734.0+634511	56	o	10	20.0	5.1	G	-3	-2	21.5 b	
1749.2+6632	17 49 12.2	66 32 8.6	1.5	0.1	RXS J174918.3+663146	42	i	16	11.2	3.4	E	···	···	>22.5	
1749.5+6726	17 49 27.0	67 26 25.3	1.8	0.1	RXS J174934.5+672554	53	i	6	8.1	3.6	E	···	···	>22.5	
1751.0+6535	17 51 0.9	65 35 54.2	1.1	0.1	RXS J175106.6+653559	35	i	6	9.5	4.1	E	···	···	>22.5	
1753.2+6619	17 53 13.7	66 19 49.8	8.0	1.0	RXS J175313.0+662020	31	i	10	6.7	2.3	E	···	···	>22.5	
1755.2+6505	17 55 9.6	65 5 22.2	15.7	0.7	RXS J175519.8+650451	71	i	34	30.4	6.6	S	6	-1	>22.5	1
1756.2+6807	17 56 11.7	68 7 59.1	2.8	0.1	RXS J175614.4+680712	49	o	336	77.5	5.0	E	···	···	>22.5	
1756.7+6531	17 56 40.1	65 31 46.2	56.5	1.8	RXS J175641.9+653123	26	i	7	7.4	2.9	S	2	0	22.0 c	
1756.8+6546	17 56 45.6	65 46 22.3	14.7	0.6	RXS J175651.7+654601	43	i	7	5.9	2.4	E	···	···	>22.5	
1757.1+6353	17 57 7.3	63 53 15.4	1.0	0.1	RXS J175710.1+635235	44	o	43	21.6	3.6	E	···	···	>22.5	
1757.4+6536	17 57 23.3	65 36 10.4	45.6	1.8	RXS J175728.8+653539	46	i	8	6.7	2.6	S	4	0	22.0 a	
1758.1+6408	17 58 6.6	64 8 54.6	1.5	0.1	RXS J175801.2+640932	52	o	538	127.0	6.4	E	···	···	>22.5	2
1758.2+6729	17 58 12.1	67 29 27.3	13.7	0.5	RXS J175813.8+673006	41	i	6	6.1	2.5	E	···	···	>22.5	
1758.8+6607	17 58 50.5	66 7 15.6	1.4	0.1	RXS J175853.3+660637	41	i	9	4.6	1.6	G	-3	-1	18.0 c	3
1759.4+6735	17 59 23.0	67 35 55.1	11.9	0.4	RXS J175919.8+673628	38	i	7	9.4	3.3	E	···	···	>22.5	
1800.3+6739	18 0 16.1	67 39 21.9	8.9	0.3	RXS J180013.4+673835	49	i	11	8.6	3.0	E	···	···	>22.5	
1801.5+6645	18 1 32.5	66 45 8.6	3.6	0.3	RXS J180137.7+664526	36	i	10	3.4	1.0	Gp	···	···	>22.5	4
1802.9+6450	18 2 56.0	64 50 59.7	1.1	0.1	RXS J180301.6+645028	47	i	8	7.6	3.1	E	···	···	>22.5	
1805.2+6737	18 5 9.5	67 37 46.5	3.3	0.1	RXS J180514.9+673738	32	i	8	10.8	401	E	···	···	>22.5	
1806.4+6619	18 6 25.1	66 19 57.4	1.3	0.2	RXS J180616.7+662009	52	i	5	4.7	2.0	E	···	···	>22.5	5
1807.5+6557	18 7 31.1	65 57 19.3	2.7	0.1	RXS J180723.7+655640	60	i	14	10.7	3.3	E	···	···	>22.5	
1807.9+6617	18 7 53.0	66 17 30.3	21.6	1.0	RXS J180747.6+661737	34	i	85	30.6	4.6	E	···	···	>22.5	
1808.8+6607	18 8 49.8	66 7 8.5	4.0	0.2	RXS J180844.8+660624	53	i	7	6.5	2.6	E	···	···	>22.5	
1810.0+6345	18 9 57.2	63 45 2.6	44.5	2.1	RXS J181003.7+634426	56	o	56	36.3	5.1	E	···	···	>22.5	
1810.1+6634	18 10 6.1	66 34 14.4	2.2	0.1	RXS J181006.1+663321	53	i	8	8.5	3.3	E	···	···	>22.5	
1811.0+6810	18 10 59.2	68 10 29.0	9.2	0.7	RXS J181106.8+681044	45	o	5	5.2	2.3	E	···	···	>22.5	
1812.9+6533	18 12 52.6	65 33 44.7	1.4	0.1	RXS J181246.2+653350	40	i	30	24.5	6.1	E	···	···	>22.5	
1813.5+6641	18 13 30.0	66 41 55.9	1.8	0.2	RXS J181339.3+664132	60	i	5	8.2	3.8	E	···	···	>22.5	6
1819.9+6749	18 19 55.5	67 49 10.3	15.9	0.6	RXS J181952.8+674820	52	o	6	8.4	3.4	G	5	-1	19.5 c	

[1] 1755.2+6505 Radio: possibly extended, 36″.

[2] 1758.1+6408 Radio/X-ray offset exceeds 40″. X-ray: very bright. Radio: faint and unresolved. Optical: X-ray position coincides with unstudied V = 10.6 G star BD 64°1235 = SAO 17709 (SIMBAD).

[3] 1758.8+6607 Radio/X-ray offset exceeds 40″. Radio: faint and unresolved. Optical: *IRAS* detected starburst galaxy (0.07 Jy at 60μm and 0.11 Jy at 100 μm) with z = 0.0799, member of massive supercluster (Ashby *et al.* 1996).

[4] 1801.5+6645 Optical: associated with NEPX1, an X-ray-selected galaxy cluster with z = 0.09 (Burg *et al.* 1992; Hasinger *et al.* 1991). (Fig. 5h).

[5] 1806.4+6619 Possibly associated with *IRAS*-detected triple galaxy, 0.6′distant (z=0.107; 0.09 Jy at 60μm and <0.1 Jy at 100 μm; Ashby *et al.* 1996).

[6] 1813.5+6641 = IRAS F18135+6641.