Table 3. Summary of optical identification program of new bright soft high-galactic-latitude RASS sources with HR1 <0. Columns denote (1) the J 2000 X-ray position from the RASS BSC, (2) and (3) the J 2000 RA and DEC of the optical counterpart, (4) the separation between optical and X-ray positions in arcsec and (5) in units of the 90% confidence radii according to Eq. 1, (6) the RASS BSC PSPC count rate CR in cts s^{-1}, (7) the hardness ratio HR1, (8) the class and (9) the type of the optical counterpart, (10) the redshift z if extragalactic, and (11) the visual magnitude V. Errors to CR and HR1 are given in brackets and refer to the last digits. Notes at the end of the Table refer to the 1RXS J numbers in column (1).

(1) RASS BSC No. 1RXS J.....	(2) RA,DEC(2000)			(3)			(4) Separation ($''$)	(5) r_{90}	(6) CR	(7) HR1	(8) Class	(9) Type	(10) z	(11) V	(12) Notes
000647.2–332316	0	6	46.7	–33	23	11	8.0	0.35	0.141 (25)	–0.69 (11)	AGN	Sy1	0.217	16.9	1
002233.8–340722	0	22	33.2	–34	7	20	7.7	0.59	0.418 (37)	–0.38 (08)	AGN	Sy1	0.219	16.1	1,4,6
005033.3+244901	0	50	33.0	24	49	2	4.2	0.28	0.444 (58)	–0.20 (12)	STAR	dMe		12.6	1,3
012237.4–264646	1	22	37.4	–26	46	46	0.0	0.00	0.321 (42)	–0.65 (08)	AGN	Sy1	0.417	18.8	1,6
012326.1–794139	1	23	16.5	–79	41	33	26.5	1.79	0.282 (45)	0.05 (15)	STAR	K		10.2	1
013242.8–655434	1	32	42.0	–65	54	34	4.9	0.30	0.276 (38)	–0.97 (04)	CV	AM		20.0	1,8
013417.2–425821	1	34	16.8	–42	58	26	6.7	0.41	0.168 (23)	–0.91 (05)	AGN	Sy1	0.237	16.0	1,4
013653.5–351012	1	36	54.3	–35	9	53	21.4	1.63	0.491 (38)	–0.81 (04)	AGN	Sy1	0.289	18.0	1,4
	1	54	0.9	–59	47	49	21.9	1.11	0.335 (54)	–0.70 (07)	CV	AM		17.0	1,8
020403.1–510455	2	4	2.7	–51	4	57	4.3	0.33	0.439 (38)	–0.25 (08)	AGN	Sy1	0.151	16.6	1,4
021257.7–585109	2	12	58.1	–58	51	17	8.6	0.52	0.185 (53)	–0.10 (27)	STAR	dMe		13.7	1
021754.1–195813	2	17	53.6	–19	58	19	9.3	0.43	0.144 (24)	–0.37 (15)	AGN	Sy1	0.468	17.1	1,6
022815.6–405712	2	28	15.2	–40	57	16	6.0	0.46	0.437 (55)	–0.52 (10)	AGN	Sy1	0.494	15.2	1,4
024513.8–434410	2	45	14.1	–43	44	1	9.6	0.58	0.233 (36)	–0.41 (12)	STAR	dMe		13.8	1
030313.9–474214	3	3	14.2	–47	42	13	3.2	0.24	0.196 (23)	–0.30 (10)	AGN			17.3	5,8
031713.9–853231	3	17	20.0	–85	32	29	7.4	0.50	0.204 (22)	–1.00 (01)	STAR	WD		13.9	1,2
033550.1–471556	3	35	49.7	–47	16	0	5.7	0.39	0.245 (24)	–0.30 (09)	AGN	Sy1	0.598	17.3	1
033714.6–415541	3	37	15.1	–41	55	25	16.9	0.68	0.145 (34)	–1.00 (14)	STAR	WD		16.4	1
035514.0–545159	3	55	13.3	–54	51	57	6.4	0.43	0.216 (21)	–0.68 (07)	AGN	Sy1	0.269	16	1
043513.8–461524	4	35	14.3	–46	15	34	11.3	0.86	0.249 (38)	–0.48 (11)	AGN	Sy1	0.070	17.1	1,4
043554.2–363635	4	35	53.9	–36	36	42	7.9	0.60	0.445 (40)	–0.28 (08)	AGN	Sy1	0.141	17.1	1,4,7
043830.0–614758	4	38	29.3	–61	47	59	5.1	0.31	0.390 (68)	–0.00 (17)	AGN	Sy1	0.069	15.7	1,4
043943.2–454039	4	39	44.7	–45	40	43	16.2	0.90	0.319 (39)	–0.81 (07)	AGN	Sy1	0.224	16.6	1,4
044550.1–385537	4	45	50.7	–38	55	38	7.1	0.39	0.223 (36)	–0.97 (09)	STAR	WD		17.5	1
045223.8–164926	4	52	24.3	–16	49	18	10.7	0.72	0.431 (35)	–0.22 (07)	STAR	dMe		12.5	1
045444.5–481300	4	54	42.9	–48	13	19	24.8	0.84	0.145 (26)	–0.72 (11)	AGN	Sy1	0.363	17.7	1,4
045929.4–222953	4	59	28.9	–22	29	55	7.2	0.36	0.115 (19)	–0.83 (08)	GAL		0.047	18	1,8
050146.2–035927	5	1	46.1	– 3	59	32	5.2	0.29	0.224 (26)	–0.96 (03)	CV	AM		17.5	1,8
051214.5–324140	5	12	13.1	–32	41	38	17.8	1.35	0.151 (20)	–0.51 (10)	CV	IP		17.6	1,8
051541.7+010528	5	15	41.3	1	4	40	48.4	3.68	0.381 (32)	–0.92 (03)	CV	AM		15.5	1,8
054747.2–195609	5	47	46.9	–19	56	9	4.2	0.28	0.168 (21)	–0.92 (05)	AGN		0.055:	17.7	1,5,8
060033.1–270918	6	0	33.2	–27	9	19	1.7	0.13	0.404 (42)	–0.87 (04)	CV	AM		19	1,8
060452.1–343331	6	4	52.0	–34	33	43	12.1	0.92	0.428 (50)	0.06 (11)	STAR	dMe		13.4	1,2
061544.4–653151	6	15	43.6	–65	31	52	5.1	0.44	0.093 (05)	–0.03 (05)	AGN	Sy1	0.227	16.6	1
	8	6	21.7	15	27	15	7.3	0.40	0.158 (27)	–0.67 (10)	CV	IP		20	1,8
	8	36	50.3	15	53	28	35.8	2.71	0.246 (50)	–0.99 (01)	STAR	WD			1,8
085909.5+053703	8	59	9.2	5	36	55	9.2	0.51	0.233 (28)	–0.82 (06)	CV	AM		17	1,8
094538.0–005829	9	45	37.9	– 0	58	29	1.5	0.11	0.381 (31)	–0.15 (07)	STAR	K		11	1
095308.6+145841	9	53	8.1	14	58	37	8.3	0.50	0.185 (27)	–0.74 (08)	CV	AM		17.3	1,8
101402.5+461954	10	14	1.9	46	19	54	6.2	0.42	0.150 (19)	–0.66 (09)	AGN	Sy1	0.324	17.1	1,3,4,7
101718.0+291439	10	17	18.3	29	14	34	6.4	0.56	0.386 (34)	–0.24 (08)	AGN	Sy1	0.049	15.7	1,4,8
102444.5–302102	10	24	44.2	–30	20	59	4.9	0.30	0.201 (28)	–1.00 (03)	STAR	WD		15.8	1,2
104614.2+525600	10	46	13.7	52	55	54	7.5	0.57	0.322 (27)	–0.82 (04)	AGN	Sy1:	0.51:	17.5	1,3,8
105055.2+552731	10	50	55.2	55	27	23	8.0	0.69	0.374 (29)	–0.69 (05)	AGN	Sy1	0.333	16.7	1,3,4
105355.0+661209	10	53	55.6	66	12	1	8.8	0.67	0.179 (19)	–0.76 (06)	AGN	Sy1	0.117	16.8	1,3
105444.4+483145	10	54	44.7	48	31	38	7.6	0.66	0.454 (32)	–0.36 (06)	AGN	Sy1	0.286	15.7	1,3,7
110842.1+595010	11	8	41.6	59	50	8	4.3	0.33	0.160 (19)	–0.72 (07)	AGN	Sy1	0.425:	18	1,3,8
114738.0+050119	11	47	37.6	5	1	10	10.8	0.82	0.392 (33)	–0.13 (08)	STAR	dMe		12.1	1,3
120656.2+700754	12	6	55.2	70	7	49	7.1	0.62	0.436 (26)	–0.15 (05)	STAR	dMe		11.4	1,3
123220.6+495731	12	32	20.1	49	57	22	10.2	0.78	0.341 (31)	–0.60 (07)	AGN	Sy1	0.262	17	1,3

(1) RASS BSC No. 1RXS J.....	(2)		RA,DEC(2000)	(3)			(4) Separation ($''$)	(5) r_{90}	(6) CR	(7) HR1	(8) Class	(9) Type	(10) z	(11) V	(12) Notes
131259.1+262825	13	12	59.5	26	28	24	5.5	0.37	0.418 (39)	−0.41 (07)	AGN	Sy1	0.061	16	1,3,4,7
150204.3+064521	15	2	4.1	6	45	15	6.7	0.51	0.472 (50)	−0.52 (09)	AGN	Sy1	0.286	16.6	1,3
161418.7−083335	16	14	19.0	− 8	33	25	10.9	0.74	0.240 (26)	−1.00 (02)	STAR	WD		14	1
164625.8+392922	16	46	26.0	39	29	33	11.2	0.85	0.396 (28)	−0.42 (06)	AGN	Sy1	0.100	17.1	1,3,4
165240.0+441632	16	52	40.1	44	16	37	5.1	0.44	0.489 (29)	−0.56 (04)	AGN	Sy1	0.132	16.9	1,3,7
171127.2+664532	17	11	27.3	66	45	29	3.1	0.27	0.235 (10)	−1.00 (00)	STAR	WD		17	1,2
181810.0+534343									0.479 (18)	−0.35 (03)				15	8
202237.8−395412	20	22	37.3	−39	54	13	5.8	0.35	0.330 (36)	−0.97 (03)	CV	AM		18.5	1,8
203626.2−535222									0.144 (28)	−1.00 (05)	STAR	WD:			5,8
214406.1−394900	21	44	5.9	−39	49	2	3.1	0.24	0.412 (37)	−0.47 (07)	AGN	Sy1	0.140	18.0	1,4
215450.7−441406	21	54	51.0	−44	14	6	3.2	0.24	0.454 (39)	−0.70 (06)	AGN	Sy1	0.344	15.8	1,4
220416.7−425817	22	4	17.5	−42	58	14	9.3	0.40	0.217 (30)	−0.72 (09)	AGN	Sy1	0.639	18.7	1
220546.4−405816	22	5	45.4	−40	58	18	11.5	0.64	0.154 (25)	−0.68 (10)	AGN	Sy1	0.235	18.3	1
221300.5−171015	22	13	0.1	−17	10	19	7.0	0.53	0.425 (42)	−0.58 (07)	AGN	Sy1	0.146	17.2	1,4,6
221515.2−274225	22	15	14.7	−27	42	22	7.3	0.40	0.315 (39)	−1.00 (02)	STAR	WD		15.5	1
222149.3−271310	22	21	48.4	−27	13	13	12.4	0.94	0.287 (34)	−0.57 (08)	AGN	Sy1	0.177	17.7	1,4,7
222650.8−414442	22	26	50.6	−41	44	46	4.6	0.31	0.169 (27)	−0.69 (10)	AGN	Sy1	0.307	17.0	1,7
223003.8−513702	22	30	4.1	−51	37	7	5.7	0.39	0.217 (27)	−0.51 (10)	AGN	Sy1	0.454	19.2	1
223244.3−413441	22	32	43.0	−41	34	38	14.9	0.91	0.190 (28)	−0.56 (12)	AGN	Sy1	0.075	16.9	1,4,7
224155.3−440459	22	41	55.3	−44	4	55	4.0	0.27	0.359 (39)	−0.68 (07)	AGN	Sy1	0.545	15.8	1,4
224642.0−520638	22	46	42.1	−52	6	40	2.2	0.17	0.706 (67)	0.14 (09)	GAL		0.194	18.2	1,8
230358.7−551717	23	3	57.8	−55	17	18	7.8	0.59	0.375 (34)	−0.34 (08)	AGN	Sy1	0.084	17.5	1,4
230439.3−512804	23	4	38.4	−51	28	0	9.3	0.63	0.356 (39)	−0.52 (09)	AGN	Sy1	0.106	17.2	1,4
233711.4−593241	23	37	9.0	−59	32	25	24.3	1.23	0.163 (30)	−0.56 (14)	AGN	Sy1	0.567	17.3	1
234024.3−532913	23	40	23.0	−53	28	57	19.8	0.86	0.230 (46)	−0.73 (14)	AGN	Sy1	0.321	17.6	1,4
234907.7−331148	23	49	7.3	−33	11	44	6.4	0.49	0.458 (46)	−0.49 (08)	AGN	Sy1	0.144	16.6	1,4,6,7
234939.7−563723									0.490 (62)	−0.79 (07)					8

Correction to Paper I

160518.5+542101: For this source, the identification of Bade et al. (1997) as an M-star has been cited in Paper I. That star, however, is $31''$ from the X-ray position and the more likely candidate is a 19 mag object at $5''$ separation which is also a radio source (White et al. 1997), suggesting a BL Lac identification. For the M-star, the implied $f_x/f_o \simeq 0.44$ would also be quite atypical, while the $f_x/f_o \simeq 1.4$ is typical of a BL Lac object. The USNO-A1.0 optical position of the BL Lac candidate is RA, DEC (2000): 16 05 19.0, 54 21 00, the radio position RA, DEC (2000): 16 05 19.1, 54 21 00.

Notes to Table 3

1: Spectroscopic identification, this work
2: WFC identification (Pye et al. 1995, Mason et al. 1995)
3: Hamburg/RASS identification (Bade et al. 1997)
4: see also Grupe et al. 1998
5: Inferred identification from the Digitized Sky Survey
6: Radio source
7: Listed also by Veron-Cetty & Veron (1996)
8: Remarks to individual sources

013242.8–655434: AM Herculis binary (Burwitz et al. 1996)

015400.9–594749: AM Herculis binary (Beuermann & Thomas 1993). The variable X-ray source is not contained in the RASS BSC. The J 2000 X-ray position derived from the PET is 1 54 00.8 –59 48 10.

030313.9–474214: CCD image shows galaxy with bright nucleus within 3″ from X-ray position, B = 18.2 (ROE finding chart). The 14 mag star 20″ NE of spectral type ∼K1 is probably unrelated to the X-ray source

045929.4-222953: Our R filter image shows a galaxy with a bright core. Our two spectra show red-shifted absorption lines of the galaxy but no emission lines.

050146.1–035932: AM Herculis binary (Burwitz et al. 1998, in preparation)

051213.1–324138: Soft Intermediate Polar (Burwitz et al. 1997)

051541.3–010440: AM Herculis binary (Shafter et al. 1995)

054747.2-195609: The CCD image shows galaxy with bright nucleus 5″ W of X-ray position. Our spectrum misses the nucleus and shows a weak absorption spectrum with z = 0.055:. A probably unrelated late F star is 31″ E

060033.2–270919: AM Herculis binary (Beuermann & Burwitz 1995)

080621.7–152715: Intermediate Polar. The highly variable X-ray source is not contained in the RASS BSC. The J 2000 X-ray position derived from the PET is 8 06 22.2 15 27 14

083650.3–155328: White dwarf. Only a non-calibrated spectrum is available. The X-ray source is not contained in the RASS BSC. The J 2000 X-ray position derived from the PET is. 8 36 52.2 15 53 51

085909.5–053703: AM Herculis binary (Beuermann & Burwitz 1995), V = 16.5–18.7

095308.1–145837: AM Herculis binary (Beuermann & Burwitz 1995)

101718.0+291439: This active galaxy is known as CASG 59 (Salzer et al. 1995)

104614.2+525600: The Hamburg survey lists this source as an AGN. Our segments of blue and red spectra miss MgII and Hβ. Hγ is very weak. Weaker spectral features yield $z = 0.510 \pm 0.003$.

110842.1+595010: Our spectrum contains only one Balmer line adjacent to a broad Fe-line complex. Interpreting the line as Hβ. yields the quoted redshift.

181810.0–534343: The 90% confidence error circle contains three objects. The $V \sim 15$ object 15″ SW is a G-star, no spectrum is available of the $V = 14.5$ candidate 5″ NE and the $V \sim 19$ candidate 12″ SSE.

202237.3–395413: AM Herculis binary (Burwitz et al. 1996)

203626.2–535222: HR1 $\simeq -1$ suggests a WD. Candidate 1 is ∼ 20″ NW, has B = 12, and is of spectral type ∼K0; candidate 2 is 10″ E, has B = 17 and B–V = 0.6; candidate 3 is 23″ E, has B = 16 and B–V = 0.9. If the WD is associated with the K-star it should be fainter than $B \simeq 15.5$

224642.0–520638: Galaxy, no emission lines. Final $CR-HR1$ values place the source outside our sample.

234939.7–563723: A close pair of a B = 13 star of spectral type ∼K0 and an ∼15 mag object is 19″ NW, two faint red objects 18″ S. The X-ray source is variable and could be an AGN or a CV.