HI observations of nearby galaxies

I. The first list of the Karachentsev catalog

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Abstract. We present HI observations of the galaxies in the first list of the Karachentsev catalog of previously unknown nearby dwarf galaxies (Karachentseva & Karachentsev 1998). This survey covers all known nearby galaxy groups within the Local Volume (i.e. within 10 Mpc) and their environment, that is about 25% of the total sky. A total of 257 galaxies have been observed with a detection rate of 60%. We searched a frequency band corresponding to heliocentric radial velocities from -470 km s$^{-1}$ to $\sim$+4000 km s$^{-1}$. Non-detections are either due to limited coverage in radial velocity, confusion with Local HI (mainly in the velocity range -140 km s$^{-1}$ to +20 km s$^{-1}$), or lack of sensitivity for very weak emission. 25% of the detected galaxies are located within the Local Volume. Those galaxies are dwarf galaxies judged by their optical linear diameter (1.4 $\pm$ 0.2 kpc on the average), their mean total HI mass (4.6 $10^7$ M$_\odot$), and their observed linewidths (39 km s$^{-1}$).

Key words: galaxies: global HI parameters — galaxies

1. Introduction

The increasing numbers of galaxies in the Local Volume is mainly due to many new dwarf galaxies. This fact demonstrates how incomplete our knowledge about the galaxy population of even the Local Volume is.

A couple of years ago Karachentseva & Karachentsev (1998; hereafter KK98) initiated an all-sky search for candidates for new nearby dwarf galaxies using the second Palomar Sky Survey and the ESO/SERC plates of the southern sky. The results of the first two segments of the survey have been published, they cover large areas around the known galaxy groups in the Local Volume (KK98) and the area of the Local Void (Karachentseva et al. 1999). In a next step to derive distances we will measure radial velocities. Later on we will aim for more exact photometric distances. In this paper we present the first follow-up observations, the HI search for the galaxies in KK98. The HI search for dwarf irregular galaxies seems quite efficient as these galaxies are HI rich in general and with adequate velocity resolution, say 5 km s$^{-1}$, all the HI of a given galaxy will be within a few velocity channels. The characteristic signature of a dwarf galaxy profile, a nearly gaussian structure, is different from radio interference and easily will lead to a good signal-to-noise ratio.

2. Observations

Observations were performed with three different radio telescopes for different declination ranges. The 100-m radiotelescope at Effelsberg was used for declinations greater than $-31^\circ$, the Nancay radio telescope was selected for galaxies in the declination range $-38^\circ \leq -31^\circ$, and the compact array of the Australia Telescope was used for galaxies south of $-38^\circ$.

2.1. Effelsberg observations

The radio telescope at Effelsberg has been used in the total power mode (ON – OFF) combining a reference field 5 minutes earlier in R.A. with the on-source position. A dual channel HEMT receiver had a system noise of 30K.
The 1024 channel autocorrelator was split into 4 bands (bandwidth 6.25 MHz) of 256 channels each shifted in frequency by 5 MHz with respect to their neighbor in order to cover a velocity range from -470 to 3970 km s$^{-1}$ overlapping 1.5 MHz between channels. The resulting channel separation was 5.1 km s$^{-1}$ yielding a resolution of 6.2 km s$^{-1}$ (10.2 km s$^{-1}$ after Hanning smoothing). The HI profiles observed with the 100-m radiotelescope are presented in Fig. 1 in order of increasing R.A. as in Table 1. The half power beam widths (HPBW) of the Effelsberg telescope at this wavelength is 9.3.

2.2. Nançay observations

For 15 galaxies in the declination range $-38^\circ \leq \delta \leq -31^\circ$ the Nançay radio telescope was used with the same velocity resolution and coverage. Major differences to the description given for the Effelsberg observations were a different system noise (45K), a different antenna beam (3'6$\times$22') in R.A. and Dec. for this declination range, and shorter integration phases with a cycle of 2 minutes for the ON and the OFF positions. Nine galaxies have been detected (Fig. 2).

2.3. Compact Array of the Australia Telescope

40 of the 57 galaxies south of declination $-38^\circ$ have been observed with the Compact Array of the Australia Telescope. For this HI search we have chosen the 750A antenna array configuration in order to yield an antenna beam comparable to the optical size of the smallest galaxies (i.e. $\sim 1'$). The frequency setup and correlator configuration was such that we obtained a velocity coverage from -450 to +2900 km s$^{-1}$ and a channel separation of 6.6 km s$^{-1}$ (i.e. a resolution of 7.9 km s$^{-1}$). Each galaxy was observed for 10 min every few hours. With five to six observations per target position we achieved a regular coverage of the uv plane for these 'snapshot mode' observations. The resulting integrated HI profiles are given in Fig. 3 (for a more detailed discussion of these data see Huchtmeier et al. in preparation). We may miss some flux with the interferometer (missing flux) as the observed HI emission extends over more than 2' per channel for over 60% of the galaxies. Galaxies from the kk98 sample not observed are: kk11, kk63, kk179, kk184, kk189, kk190, kk197, kk203, kk211, kk213, kk214, kk217, kk221, kk222, kk235, kk244, kk248.

3. The data

Our search list was an early version of the list of KK98 containing a few additional galaxies which did not make it into the final version because of their morphology and/or size (i.e. they were too small). Particularly, we took into account the results of HI searches for nearby dwarf galaxies made by Kraan-Korteweg et al. (1994), Huchtmeier et al. (1995), Burton et al. (1996), Huchtmeier & van Driel (1997), Huchtmeier et al. (1997) and Cote et al. (1997). The optical data of our galaxies are given in Table 1. The kk-number (or other identification if there is no kk-number) is given in column 1, R.A. and Dec. (1950) follow in columns 2 and 3. The optical diameters $a$ and $b$ in the de Vaucouleurs ($D_{25}$) system follow in columns 4 and 5, the morphological type in column 6 where we use the following coding:

- Im - irregular blue object with bright knot(s),
- Ir - irregular without knots or with amorphous condensations, the colour is neutral or bluish,
- Sm - disturbed spiral or irregular with signs of spiral structure,
- Sph - spheroidal, with very low brightness gradient or without any, the color is neutral or redish.

The optical surface brightness (SB) has been coded (see KK98): high (H), low (L), very low (VL), and extremely low (EL) in column 7. The total blue magnitude $B_{t}$ and its reference follow in columns 8 and 9. 'NED' - data are from the NASA/Extragalactic Database, 'IK' - visual estimates from POSS (typical error is about 0.4 mag) by I. Karachentsev, '6m' - accurate photometric data from the 6-m telescope CCD-frames obtained by Karachentsev and coworkers (unpublished); 'UH' - photometric data from U. Hopp (Calar Alto) unpublished.

The Galactic extinction follows in column 10. Other names (identifications) are listed in column 11.

Results of the HI observations are summarized in Table 2. The kk-number is given in column 1, the HI-flux [Jy km s$^{-1}$] follows in column 2, the maximum emission and/or the r.m.s. noise [mJy] in column 3, the heliocentric radial velocity plus error in column 4, the line widths at the 50%, the 25%, and the 20% level of the peak emission in column 5. Distances (column 6) have been derived with different methods, there are photometric distances in some cases, in other cases the group membership yields a distance. If no other distance estimate is available, we assumed a Hubble constant of 75 km s$^{-1}$ Mpc$^{-1}$ to derive a 'kinematic' distance. The absolute magnitude is given in column 7, the integrated HI mass (column 8) was calculated as (e.g. Roberts 1969)

$$\left(\frac{M_{\text{HI}}}{M_{\odot}} \right) = 2.355 \times 10^{5} \times D^2 \times \int S_{v} dv$$

where $D$ is the distance of the galaxy in Mpc and $\int S_{v} dv$ is the integrated HI flux in Jy km s$^{-1}$. The relative HI content $M_{\text{HI}}/L_B$ follows in column 9. Finally, column 10 contains comments relative to the telescope used for the observation: unless otherwise noted observations have been performed with the 100-m radiotelescope at Effelsberg, N - marks the Nançay radio telescope, ATCA - the Australia Telescope Compact Array at Culgoora, NSW. In a number of cases emission at negative radial velocities has been observed (kk20, kk236, kk237; only kk 236 has been...
Fig. 4. The histogram shows the number of galaxies per velocity interval of 200 km s$^{-1}$. The distribution of corrected radial velocities ($v_0$) of our galaxy sample demonstrates the local character of these galaxies plotted as an example. The Dwingeloo HI survey (Hartmann & Burton 1997) has been consulted: in all cases of negative radial velocities extended HI emission was found suggesting that we observed high velocity clouds in our Galaxy.

4. Discussion

A great majority (73%) of our galaxies are of type Im (26) and Ir (162), about 20% are of type Sph/Ir (12) and Sph (39), while the rest of 8% is a collection of different types from spiral to Im/Sm and BCD. The detection rate of our sample galaxies depends on the morphological type. 75% of the spirals (type S0 to Sm/Im and BCD) were detected; the detection rate for types Im and Ir is very similar close to 60%, whereas the detection rate for types Sph/Ir and Sph is considerably lower at 33 and 23%, respectively. The detection rate depends on the optical surface brightness (SB) class, too. From high SB to low, very low, and extremely low SB the detection rate decreases from 70% to 58%, 49%, and 43%, respectively. This trend reflects the type dependence and the fact that we deal with fainter galaxies as we descend from high SB to very low SB, the median absolute magnitudes for the detected galaxies change from -15.43 (H) to -13.92 (VL) for our brightness classes.

A number of the galaxies within the present sample are associated with nearby groups of galaxies (e.g. Tully 1988) according to their position, radial velocity and relative resolution:

- NGC 672 group: kk 13, kk 14, kk 15;
- NGC 784 group: kk 16, kk 17;
- Maffei group: kk 19, kk 21, kk 22, kk 23, kk35, kk 44;
- Orion group: kk 49;
- M 81 group: kk 81, kk 83, kk 85, kk 89, kk 89, kk 91;
- Leo group: kk 94;
- CVn cloud: kk 109, UGC 7298, kk 137, kk 141, kk 144, kk 148, kk 149, kk 151, kk 154, kk 158, kk 160, kk 191, kk 206, kk 220, kk 230;
- Centaurus group: kk 170, kk 179, kk 182, kk 190, kk 191, kk 195, kk 197, kk 200, kk 211, kk 217, kk 218;
- NGC 6946 group: kk 250, kk 251, kk 252;
- Virgo cluster: kk 111, kk 127, kk 128, kk 140, NGC 4523, IC3517, kk 164, kk 168, kk 169, kk 172, kk 173, U 8091.

There are a few cases of high $M_{HI}/L_B$ values in Table 2. Four of the five galaxies with $M_{HI}/L_B \geq 5$ are actually found to be confused by emission from nearby galaxies (see footnotes to Table 2).
The present sample of galaxies as presented in Tables 1 and 2 will be discussed now in some detail with the help of global parameters. The distribution of radial velocity ($v_0$, corrected for the rotation of our galaxy) is given in Fig. 4. Apart from a few background objects most of the galaxies belong to the local supercluster, about 25% are within the Local Volume. From this situation it is clear that the great majority of the galaxies in the present sample are dwarfish in nature. This will be shown more convincingly below when we compare several other global parameters of these objects.

The total mass of neutral hydrogen $M_{HI}$ of the galaxies in our sample is plotted versus the linear extent (in kpc). The full line represents the regression line for the KKT sample (Huchtmeier & Richter 1988). This regression line seems to be an excellent fit for the present sample, too. The average HI mass of the galaxies in the Local Volume is $4.6 \times 10^7 M_\odot$.

Fig. 6. The total mass of neutral hydrogen $M_{HI}$ of the galaxies in our sample is plotted versus the linear extent (in kpc). The full line represents the regression line for the KKT sample (Huchtmeier & Richter 1988).

Next we will look at the optical linear diameter $A_0$ (in kpc). The histogram in Fig. 5 presents the number of galaxies binned in intervals of 0.5 kpc width. The distribution of the optical linear diameters of our galaxies extends from 0.2 kpc to 26 kpc, yet the great majority is smaller than 8 kpc in diameter (in the de Vaucouleurs $D_{25}$ system). Galaxies in the Local Volume (indicated by shaded areas) are even smaller with a median value of $1.4 \pm 0.2$ kpc.

Now we will use the correlation of two global parameters to compare the present sample of galaxies with the previously known galaxies in the Local Volume. In Fig. 6 the total mass of neutral hydrogen $M_{HI}$ of the galaxies is plotted versus their linear extent $A_0$ for this sample of galaxies. The full line is the regression line for the KKT sample (Huchtmeier & Richter 1988). This regression line seems to be an excellent fit for the present sample, too.
The HI masses in Fig. 6 cover a range from $10^6$ to $10^{10}$ solar masses. The HI luminosity function for galaxies has been studied with galaxies of $10^7$ and more solar masses in HI so far. With the data of the new dwarf galaxies within the Local Volume we will be able in the end to discuss the HI luminosity function starting from $10^6$ solar masses.

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The galaxies in our sample have small line widths on the average. In Fig. 7 we present the distribution of observed line widths in the upper panel and the (for inclination corrected values $\langle dv \rangle$) in the lower panel. Galaxies within the Local Volume (i.e. within 10 Mpc) are marked by the shaded areas.

The three global parameters we have considered so far point altogether toward the dwarfish character of the Local Volume objects in our sample: the average linear diameter of $1.4 \pm 0.2$ kpc (Fig.5), the mean total HI mass of $4.6 \times 10^7$ $M_\odot$ and the small line width of less than 50 km s$^{-1}$.

Two more global parameters are shown in Fig. 8, pseudo HI surface density $\Sigma_{HI}$ and the relative HI content $M_{HI}/M_T$. The pseudo HI surface density is obtained by dividing the total HI mass $M_{HI}$ of the galaxy by the disk area of the galaxy as defined by its optical diameter $A_0$. This quantity is given in units of solar mass per square parsec as well as in the usual HI column density $N_{HI}$ in atoms cm$^{-2}$. This quantity is plotted versus the relative HI content $M_{HI}/M_T$. Our galaxies fill the usual range in HI surface density as well as in relative HI content as observed for normal galaxies (e.g. HR). The present sample of galaxies is relatively rich in HI. Some of the scatter in the diagram is due to uncertainties in observed quantities, especially the inclination which is used to correct the line width which itself enters the total mass calculation by the square. The optical diameters are uncertain for galaxies at low galactic latitudes due to the high foreground extinction, e.g. Cas 2, ESO 137-G27, BK12, ESO 558-11. If we exclude the confused galaxies and those with heavy galactic extinction all entries in Fig. 8 with $\Sigma_{HI} \geq 100$ $M_\odot$ pc$^{-2}$ are gone. Low values of the HI surface density are not only due to the uncertainties of observational data, the gas content of dwarf galaxies is very sensitive to outside influences (tidal interactions) due to their shallow gravitational potential.

Finally we plot the HI surface brightness versus the optical surface brightness (Fig. 9). The surface brightness class (Table 1, column 7) has been coded from 4 to 1 from high SB to extremely low SB in steps of 1. The different errors of the mean values of each class essentially depend on the different population size of each SB class. However, there is a definite trend of the HI surface density to grow.
with increasing optical SB by a factor of 2 to 4 (e.g. van der Hulst et al. 1993, de Blok 1997).

Fig. 9. This figure presents a correlation between the pseudo HI column density with the optical surface brightness of the galaxy in our actual sample. The surface brightness class is taken from KK98; 1 = extremely low, 2 = very low, 3 = low, 1 = high SB. The error bars correspond to twice the r.m.s. error of the mean of each SB class.

5. Conclusion

In this paper we presented an HI search for 257 candidates for nearby dwarf galaxies. A detection rate of 60% on the average is quite high keeping in mind the limited velocity band and the fact that single-dish telescopes are literally ‘blind’ for weak emission in the velocity range of the local HI emission (i.e. within -140 to +20 km s\(^{-1}\)) and for 20% of HI-poor (spheroidal and Sph/Ir) objects in the sample. Most of the detected galaxies are located within the local supercluster, and about 25% are members of the Local Volume. The dwarfs within the Local Volume have a mean linear diameter of 1.4 ± 0.2 kpc, a mean observed linewidths of 39 km s\(^{-1}\), and a mean total HI mass of 4.6 \(10^7\) M\(_\odot\). The smallest galaxies have HI masses of just over \(10^6\) solar masses. Once this full-sky survey will be finished we will be able to discuss the luminosity function of the Local Volume including these tiny dwarf galaxies. This investigation is especially needed as recent determinations of the galaxy luminosity function exhibit an increase for low mass objects. The exact value of this increase will be important for deriving the mass density in the local universe.

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Fig. 1. HI profiles observed with the 100-m radio telescope at Effelsberg which has a HPBW of 9.3′ at a wavelength of 21 cm. Observations were obtained in the total power mode [ON – OFF] which yields a residual of the Local HI emission around 0 km s$^{-1}$. The profiles are arranged in ascending R.A. starting at the bottom left corner.
Fig. 1. cntd.
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Fig. 2. HI profiles observed with the Nançay radio telescope (HPBW of 3′6 × 22′ for the declination range in question)

Fig. 3. HI profiles observed with the Australia Telescope Compact Array. The synthesized antenna beam is of the order of 1′
Table 1. List of new Local Volume dwarf candidates

| KK | R.A. (1950.0) Dec. | a  | b  | Type | S.B. | B   | Ref.(B) | A   | Identification |
|----|-------------------|----|----|------|------|------|---------|-----|----------------|
|    | h     m     s     | °   | ′   | ″   |      |      |         |     |                |
|    |        |      |    |     |      |      |         |     |                |
| 1  | 00 12 31.6 | -38 45 43 | 0.9 | 0.35 | Im   | H    | AM 0012-384 |
| 2  | 00 12 53.5 | -21 43 17 | 2.3 | 1.3  | S0   | H    | NED 0.06  | NGC 59 |
| 3  | 00 13 00.0 | -32 27 36 | 1.5 | 1.3  | Im   | H    | FG 11    |
| 4  | 00 29 27.4 | -33 32 30 | 0.9 | 0.8  | Sph/Ir | L    | FG 16, AM 0029-333 |
| 5  | 00 32 52.7 | +36 13 21 | 5.  | 3.   | Sph  | EL   | And III |
| 6  | 00 34 43.3 | +47 53 57 | 0.5 | 0.48 | Ir    | L    |         |
| 7  | 00 35 18.6 | -43 46 46 | 0.6 | 0.4  | Im   | H    | AM 0035-434 |
| 261| 00 38 30.5 | -26 32 28 | 0.6 | 0.3  | Ir    | VL   |         |
| 8  | 00 42 56.2 | +37 45 51 | 4.  | 3.   | Sph  | EL   | And I   |
| 9  | 00 46 51.9 | -18 20 48 | 1.2 | 1.1  | Sph  | L    | K 2     |
| 10 | 00 47 56.0 | -20 10 44 | 1.3 | 1.2  | Sph/Ir | L    | FG 24   |
| 12 | 01 13 41.9 | +33 09 20 | 4.  | 2.5  | Sph  | EL   | And II  |
| 13 | 01 39 29.5 | +26 06 57 | 0.7 | 0.35 | Ir    | L    | UH 0.29 |
| 14 | 01 41 54.0 | +27 02 14 | 1.6 | 0.6  | Ir    | L    | 17.47 6m  | 0.24 |
| 15 | 01 43 53.6 | +26 33 07 | 0.6 | 0.18 | Ir    | VL   | UH 0.26 |
| 262| 01 43 55.7 | +14 26 33 | 1.0 | 0.7  | Ir    | H    | UG 1242 |
| 263| 01 47 10.5 | +28 40 03 | 0.7 | 0.55 | Ir    | L    | UG 0.18 |
| 16 | 01 52 30.2 | +27 42 34 | 0.8 | 0.28 | Ir    | L    | UG 0.29 |
| 17 | 01 57 18.1 | +28 35 26 | 0.6 | 0.3  | Ir    | L    | UG 0.20 |
| 18 | 01 57 22.0 | +67 30 36 | 1.3 | 0.9  | Sph? | EL   |         |
| 264| 02 01 46.3 | +72 30 23 | 0.8 | 0.8  | Ir    | L    | 18.7   | IK 2.96 |
| 19 | 02 02 02.4 | +68 45 57 | 2.2 | 1.7  | Ir    | L    | 16.38 6m  | 4.44 |
| 20 | 02 31 39.9 | +22 21 45 | 1.2 | 0.7  | Sph   | VL   |         |
| 21 | 02 31 52.2 | +59 09 42 | 2.4 | 1.0  | Ir    | EL   | MB 1    |
| 22 | 02 51 54.1 | +58 39 35 | 1.6 | 0.5  | Ir    | EL   | MB 3    |
| 23 | 02 53 01.1 | +58 42 37 | 2.0 | 0.3  | SB    | EL   |         |
| 24 | 02 53 54.5 | +17 15 25 | 0.6 | 0.4  | Ir?   | L    |         |
| 25 | 03 07 59.9 | +60 09 28 | 2.8 | 0.8  | Ir?   | VL   | 19.0   | IK 6.00 |
| 26 | 03 18 53.2 | +62 36 27 | 1.8 | 0.9  | Ir    | L    | Cam C   |
| 27 | 03 20 29.5 | -66 30 04 | 1.2 | 0.4  | Ir    | L    |         |
| 28 | 03 28 35.2 | +47 37 28 | 1.4 | 0.8  | Ir    | H    | 15.04  | NED 2.41 |
| 265| 03 29 09.0 | +67 56 36 | 2.0 | 0.8  | Ir    | L    | 17.0   | IK 3.45  | K 37=BK 7 |
| 29 | 03 33 18.9 | -61 15 37 | 1.8 | 0.9  | Im    | EL   | NED 0.05 | FG 82, AM 0333-611 |
| 266| 03 33 44.4 | +67 26 00 | 2.0 | 0.7  | Ir?   | L    | 17.0   | IK 3.44  | BK 8 |
| 30 | 03 37 12.6 | +68 02 50 | 1.0 | 0.5  | Sph?  | VL   | 18.6   | IK 2.34 |
| 31 | 03 37 26.2 | -18 49 42 | 0.7 | 0.6  | Ir/Sph | L    |         |
| 32 | 03 37 26.8 | +19 35 30 | 0.8 | 0.7  | Ir    | L    |         |
| 267| 03 38 25.0 | +68 06 11 | 2.2 | 0.3  | Ir?   | L    | 17.7   | IK 2.24  | BK 12 |
| 33 | 03 38 39.9 | +67 52 57 | 0.4 | 0.4  | Ir    | VL   |         |
| 34 | 03 38 56.9 | -45 30 52 | 1.5 | 1.5  | Im    | H    | NED 0.0  | AM 0338-453 |
| 35 | 03 40 23.7 | +67 42 26 | 2.5 | 1.7  | Ir    | VL   | 17.2   | 2.5    |
| 36 | 03 42 47.0 | +67 30 57 | 1.0 | 0.6  | Ir    | L    | 17.4   | IK 2.67  |
| 37 | 03 47 15.0 | +70 56 34 | 0.9 | 0.4  | Ir?   | VL   | 16.9   | IK 2.37  | BK 17 |
| 268| 03 53 22.5 | +69 08 24 | 1.1 | 0.6  | Sph   | L    | 17.2   | IK 2.72  | BK 19 |
| 38 | 03 58 47.0 | -62 38 57 | 0.7 | 0.5  | Im    | H    | AM 0358-623 |
| KK | R.A. (1950.0) Dec. | a | b | Type | S.B. | B | Ref.(B) | A, | Identification |
|----|------------------|---|---|------|-----|---|---------|---|----------------|
|    | h m s            | ° | ′ | ″  | arc | min|         |     |                  |
| 1  | 2                | 3 | 4 | 5   | 6   | 7 | 8       | 9  | 10             |
| 269| 03 59 34.8       | +71 25 44 | 1.2 | 0.5 | Ir  | VL  | 17.0    | IK | 1.17    BK 21 |
| 39 | 04 00 06.0       | +71 20 00 | 1.1 | 0.9 | Ir? | EL  | 18.5    | IK | 1.12    |
| 40 | 04 05 56.0       | −55 27 21 | 1.6 | 1.0 | Im  | H   | 14.73   | NED| 0.0      AM 0405-552 |
| 270| 04 06 44.0       | +70 38 33 | 0.9 | 0.4 | Ir  | L   | 16.6    | IK | 1.17    |
| 41 | 04 19 26.7       | +72 41 27 | 3.7 | 2.1 | Sph?| VL  |         | Cam A |   |
| 42 | 04 39 44.4       | +61 15 47 | 0.6 | 0.6 | Ir? | VL  |         |     |            |
| 43 | 04 45 11.0       | −36 00 18 | 2.2 | 0.8 | Im/Sm| H   | 15.23   | NED| 0.0      AM 0445-360 |
| 271| 04 46 40.8       | +67 04 29 | 0.6 | 0.35| Sph?| L   | 17.7    | IK | 0.92    |
| 44 | 04 48 03.3       | +67 01 02 | 2.2 | 1.1 | Ir  | H   | 16.71   | UH | 0.93    |
| 45 | 05 21 35.2       | −34 37 13 | 0.55| 0.4 | Im  | H   | 16.8    | IK | 0.0      AM 0521-343 |
|    |                  |    |    |     |     |     |         |     |            |
| 46 | 05 23 05.4       | −87 05 14 | 1.4 | 0.7 | Im  | L   | 15.90   | NED| 0.61    FG154,AM0522-870 |
| 47 | 05 27 49.0       | −87 37 36 | 1.0 | 0.45| Ir? | L   |         |     | AM 0528-873 |
| 48 | 05 28 26.3       | −24 54 44 | 1.7 | 0.3 | Im/Sm| VL  | 16.17   | NED| 0.06    AM 0528-245 |
| 49 | 05 39 00.7       | +06 39 28 | 0.7 | 0.5 | Im? | H   | 16.1    | IK | 2.85    |
| 50 | 05 47 25.5       | +02 52 10 | 0.5 | 0.4 | Ir  | VL  | 18.3    | IK | 2.87    |
| 51 | 05 48 47.9       | +02 53 48 | 2.1 | 0.5 | Ir  | EL  |         |     |            |
| 52 | 06 02 18.4       | −19 37 03 | 1.2 | 0.5 | Ir  | L   | 17.06   | NED| 0.38    |
| 53 | 06 12 51.5       | −51 31 41 | 1.1 | 0.6 | Im  | L   | 16.54   | NED| 0.15    AM 0612-513 |
| 54 | 06 24 16.7       | −26 14 06 | 0.6 | 0.3 | Ir  | H   | 15.6    | IK | 0.43    AM 0624-261 |
| 55 | 06 37 55.8       | −40 34 20 | 0.7 | 0.45| Ir  | VL  | 16.23   | NED| 0.33    AM 0637-404 |
|    |                  |    |    |     |     |     |         |     |            |
| 56 | 06 39 49.0       | +36 41 03 | 1.3 | 0.4 | Ir? | L   | 17.9    | IK | 0.66    |
| 57 | 07 04 49.9       | −21 57 29 | 1.9 | 1.1 | Ir  | L   | 15.8    | IK | 2.81    |
| 58 | 07 07 56.2       | −51 23 08 | 1.4 | 1.1 | Ir  | L   | 15.31   | NED| 0.25    FG 203 |
| 59 | 07 17 41.2       | −57 19 06 | 2.1 | 1.6 | Im/Sm| VL  | 16.1    | IK | 0.43    FG 206,AM 0717-571 |
| 60 | 07 20 23.0       | +46 06 10 | 1.1 | 0.4 | Ir  | L   |         |     |            |
| 61 | 07 29 13.1       | +66 59 40 | 3   | 2   | Sph | VL  |         |     | DDO 44 |
| 62 | 07 31 50.6       | +42 12 13 | 0.6 | 0.4 | Ir  | L   | 17.6    | IK | 0.21    |
| 64 | 07 39 30.0       | +69 41 09 | 0.6 | 0.2 | Ir  | L   | 16.6    | IK | 0.12    |
| 65 | 07 39 40.2       | +16 40 47 | 0.9 | 0.5 | Ir  | H   | 15.6    | NED| 0.09    |
| 66 | 07 44 05.4       | +40 18 42 | 0.7 | 0.4 | Ir  | L   | 17.0    | IK | 0.22    |
| 67 | 08 00 34.9       | +15 17 03 | 1.0 | 0.5 | Ir  | L   |         |     |            |
| 68 | 08 27 17.0       | −84 58 57 | 1.1 | 1.0 | Ir? | H   |         |     |            |
| 69 | 08 49 44.1       | +33 50 13 | 2.4 | 1.8 | Sph?| EL  | 16.8    | IK | 0.07    |
| 70 | 08 52 16.3       | +33 45 02 | 1.1 | 1.0 | Sph?| EL  |         |     |            |
| 71 | 09 06 56.7       | −23 09 51 | 0.45| 0.35| Ir/Sph| L   | 18.7    | IK | 0.73    AM 0906-231 |
| 72 | 09 09 28.5       | −23 46 35 | 0.6 | 0.5 | Sph  | L   |         |     |            |
| 73 | 09 10 15.6       | −24 02 05 | 0.9 | 0.8 | Sph | L   |         |     |            |
| 74 | 09 12 18.0       | −23 20 55 | 0.8 | 0.4 | Im  | L   |         |     | FG247,AM0912-232 |
| 75 | 09 12 48.9       | −25 40 30 | 0.9 | 0.6 | Ir  | L   | 18.0    | IK | 0.73    |
| 76 | 09 21 37.4       | +22 29 20 | 1.3 | 0.9 | S?  | H   | 15.9    | IK | 0.10    UGC 5005 |
| 77 | 09 38 23.6       | −76 21 41 | 2.1 | 0.8 | Ir  | L   |         |     |            |
| 78 | 09 46 08.5       | +67 44 25 | 2.4 | 1.8 | Sph | VL  |         |     |            |
| 79 | 09 47 23.6       | +31 41 26 | 0.5 | 0.3 | Ir  | H   | 17.6    | IK | 0.03    |
| 80 | 09 50 03.5       | +29 32 46 | 0.6 | 0.4 | BCD?| H   | 17.0    | IK | 0.02    |
| 81 | 09 50 45.0       | +29 40 57 | 1.1 | 0.6 | Ir  | L   |         |     |            |
| KK | R.A. (1950.0) | Dec. | a  | b  | Type | S.B. | B_r | Ref.(B) | A_0 | Identification |
|----|--------------|------|----|----|------|------|-----|---------|-----|----------------|
| 81 | 09 53 00.8   | +68 49 47 | 2.6 | 2.6 | Sph  | VL   |     |         |     | K 61          |
| 82 | 10 00 25.3   | −05 57 55 | 0.6 | 0.5 | Ir   | L    | 17.73| NED     | 0.05|                |
| 83 | 10 01 18.0   | +66 48 00 | 1.7 | 1.7 | Sph  | VL   |     |         |     | DDO 71,K 63   |
| 84 | 10 03 05.8   | −07 30 20 | 1.9 | 1.3 | Sph  | L    |     |         |     | K 65          |
| 85 | 10 03 09.0   | +68 04 19 | 2.0 | 1.0 | Sph  | L    |     |         |     | K 64,UGC 5442 |
| 86 | 10 05 22.0   | +30 44 09 | 1.0 | 0.6 | Ir?  | L    |     |         |     | MCG 5-24-18   |
| 87 | 10 12 37.6   | −44 36 08 | 1.2 | 1.0 | Sm?  | H    |     |         |     | AM 1012-443   |
| 88 | 10 13 57.4   | −39 44 23 | 0.9 | 0.5 | Ir   | VL   |     |         |     | AM 1013-394   |
| 89 | 10 22 47.6   | +67 54 32 | 2.0 | 2.0 | Sph  | VL   | 15.8 | NED     | 0.06| DDO 78        |
| 90 | 10 26 26.1   | +23 01 57 | 1.0 | 0.5 | Ir/S | VL   | 16.8 | IK      | 0.0 |               |
| 91 | 10 31 00.0   | +66 16 00 | 1.0 | 0.8 | Sph  | VL   |     |         |     | BK 6N         |
| 92 | 10 33 30.1   | +27 47 52 | 0.8 | 0.7 | Ir   | L    | 16.9 | IK      | 0.04|               |
| 93 | 10 43 45.8   | +14 17 16 | 1.2 | 1.1 | Ir   | VL   |     |         |     |               |
| 94 | 10 44 18.1   | +13 15 48 | 1.2 | 0.6 | Ir   | VL   | 17.9 | IK      | 0.04|               |
| 95 | 10 46 03.6   | +64 59 20 | 2.2 | 1.7 | Ir   | VL   |     |         |     | UGCA 220      |
| 96 | 10 47 48.8   | +12 37 34 | 1.2 | 0.8 | Sph  | EL   |     |         |     |               |
| 97 | 10 55 35.3   | +20 22 35 | 0.7 | 0.5 | Ir   | L    |     |         |     |               |
| 98 | 11 09 37.7   | +17 01 32 | 0.9 | 0.4 | Sph/Ir| VL   | 17.4 | IK      | 0.0 | F 640-3       |
| 99 | 11 11 11.2   | −47 46 02 | 0.35| 0.25| Im   | H    |     |         |     | AM 1111-474   |
|100 | 11 11 22.9   | +11 36 10 | 1.2 | 0.5 | Ir   | VL   |     |         |     |               |
|101 | 11 14 19.1   | −32 22 39 | 0.7 | 0.4 | Sph? | L    |     |         |     |               |
|102 | 11 20 21.2   | +19 44 58 | 0.6 | 0.4 | Ir?  | L    | 17.1 | IK      | 0.0 | F 570-3       |
|103 | 11 21 03.8   | +19 31 52 | 0.6 | 0.4 | Sph  | VL   |     |         |     |               |
|104 | 11 26 14.5   | +18 33 25 | 1.1 | 0.7 | Ir?  | VL   | 17.1 | IK      | 0.0 | F 571-10      |
|105 | 11 26 40.7   | +46 23 23 | 0.8 | 0.5 | Ir?  | L    | 16.6 | IK      | 0.0 |               |
|106 | 11 27 08.7   | +52 40 54 | 0.8 | 0.7 | Sph? | VL   | 16.7 | IK      | 0.0 | K 78          |
|107 | 11 31 40.1   | +17 26 14 | 0.7 | 0.4 | Ir   | L    |     |         |     |               |
|108 | 11 37 23.0   | +46 45 29 | 0.7 | 0.6 | Sph? | VL   | 17.7 | IK      | 0.01|               |
|109 | 11 44 33.5   | +43 56 59 | 0.6 | 0.4 | Ir?  | L    | 17.5 | IK      | 0.0 |               |
|110 | 11 46 01.0   | +56 11 44 | 0.6 | 0.6 | Ir?  | L    |     |         |     |               |
|111 | 11 51 27.3   | +16 59 55 | 0.6 | 0.45| Ir?  | L    | 17.0 | IK      | 0.14|               |
|112 | 11 52 17.9   | +47 04 59 | 0.5 | 0.3 | Ir?  | VL   |     |         |     |               |
|113 | 11 53 55.1   | −36 27 39 | 0.5 | 0.35| Im   | H    |     |         |     |               |
|114 | 11 55 37.1   | +49 09 34 | 0.7 | 0.55| Im   | H    | 16.2 | IK      | 0.05| MCG 8-22-48   |
|115 | 11 56 18.5   | +46 00 45 | 1.3 | 0.7 | Ir   | L    | 15.8 | IK      | 0.0 | UGCA 259      |
|116 | 11 57 24.6   | +44 59 50 | 0.6 | 0.6 | Ir?  | L    | 17.1 | IK      | 0.0 |               |
|117 | 11 58 42.9   | +54 03 01 | 0.6 | 0.15| Ir   | VL   |     |         |     |               |
|118 | 11 59 13.5   | +28 38 26 | 0.8 | 0.7 | Ir   | L    | 17.0 | IK      | 0.0 |               |
|119 | 12 00 56.2   | −25 11 35 | 2.5 | 1.9 | Im/Sm| L    | 16.8 | IK      | 0.43| FG 320;AM 1200-251 |
|120 | 12 02 52.3   | +43 59 13 | 1.1 | 0.6 | Ir   | VL   |     |         |     |               |
|121 | 12 04 04.8   | +55 02 38 | 1.0 | 0.25| Ir   | L    | 16.4 | IK      | 0.0 |               |
|122 | 12 04 20.5   | +17 37 01 | 0.9 | 0.2 | Ir   | L    |     |         |     |               |
|123 | 12 06 16.1   | +52 50 29 | 0.5 | 0.3 | Ir?  | EL   |     |         |     |               |
|124 | 12 10 16.9   | +69 12 20 | 0.7 | 0.6 | Sph? | VL   |     |         |     |               |
|125 | 12 10 47.5   | +28 41 44 | 0.6 | 0.3 | Ir   | L    | 16.7 | IK      | 0.02|               |
| KK | R.A. (1950.0) Dec. | a  | b  | Type | S.B. | Bv | Ref.(B) | A6 | Identification |
|----|------------------|----|----|------|------|----|---------|----|----------------|
| 1  | 12 10.51.5 | +30 12 00 | 0.9 | 0.25 | Ir | H | 16.22 | UH | 0.04 |
| 2  | 12 11.17.1 | +05 37 54 | 0.6 | 0.4 | Ir | L | 17.0 | IK | 0.0 | GR 5 |
| 3  | 12 11.38.9 | +16 14 35 | 1.1 | 1.1 | Sph | VL | K 88,VCC 108 |
| U7298 | 12 14.02.2 | +52 30 29 | 1.1 | 0.6 | Ir | L | 15.95 | 6m | 0.04 | UGC 7298 |
| 5  | 12 15.17.6 | +28 45 09 | 0.6 | 0.3 | Ir | L | K 95 |
| 6  | 12 15.58.1 | +28 55 31 | 0.6 | 0.5 | Sph/Ir | VL | K 98 |
| 7  | 12 16.38.5 | +48 00 25 | 0.6 | 0.5 | Sph/Ir | VL |
| 8  | 12 17.04.1 | +43 39 50 | 0.4 | 0.3 | Ir | L |
| 9  | 12 17.05.3 | +47 43 54 | 0.3 | 0.3 | Sph? | L |
| 10 | 12 17.09.5 | +58 19 18 | 0.8 | 0.4 | Ir | VL |
| 11 | 12 17.13.5 | +47 16 43 | 0.5 | 0.5 | Sph? | L |
| 12 | 12 19.13.0 | +38 15 06 | 0.9 | 0.5 | Ir | VL | 16.08 | UH | 0.0 | K 105 |
| 13 | 12 19.27.0 | +28 31 09 | 0.9 | 0.5 | Sph/Ir | VL | 17.8 | IK | 0.08 |
| 14 | 12 19.37.9 | +40 01 23 | 0.9 | 0.4 | Ir | L | 16.7 | IK | 0.0 |
| 15 | 12 20.15.7 | +08 11 27 | 0.6 | 0.5 | Ir | L | 15.8 | NED | 0.0 | VCC 584 |
| 16 | 12 20.23.2 | +34 06 23 | 0.4 | 0.3 | Ir | L | 17.5 | IK | 0.0 |
| 17 | 12 21.48.5 | −42 00 57 | 1.0 | 0.5 | Ir? | L | AM 1221-420 |
| 18 | 12 22.34.0 | +61 20 20 | 1.0 | 0.7 | Ir | L | 16.59 | UH | 0.0 | MCG 10-18-44 |
| 19 | 12 22.58.6 | +28 45 33 | 1.5 | 0.5 | Ir | L | 16.5 | IK | 0.09 |
| 20 | 12 24.18.6 | +62 39 23 | 1.1 | 0.7 | Ir | L | 16.61 | UH | 0.01 | UGC 7544 |
| 21 | 12 24.19.1 | +13 27 15 | 1.0 | 0.35 | Sm | L | DDO 124 |
| 22 | 12 25.20.3 | −37 03 12 | 2.0 | 0.25 | Im/Sm? | H | 15.59 | NED | 0.20 | AM 1225-370 |
| 23 | 12 25.32.4 | +22 51 57 | 0.8 | 0.4 | Ir | L | 16.2 | IK | 0.07 | UGC 7584 |
| 24 | 12 26.25.8 | +42 27 20 | 0.8 | 0.45 | Ir | L | 15.01 | NED | 0.0 | MCG 7-26-11 |
| 25 | 12 27.28.2 | +08 12 24 | 1.1 | 0.7 | Im | L | UGC 7636 |
| 26 | 12 27.57.5 | +43 10 38 | 1.2 | 0.5 | Ir? | L | 15.8 | IK | 0.0 | MCG 7-26-12 |
| VPC873 | 12 30.02.9 | +14 51 23 | 0.2 | 0.2 | Ir | H |
| 27 | 12 30.58.4 | +33 37 42 | 1.2 | 0.4 | Ir | L | 16.5 | IK | 0.03 | MCG 06-28-9 |
| N4523 | 12 31.16.9 | +15 26 39 | 2.3 | 2.0 | SBD? | H | 14.42 | NED | 0.0 | NGC4523 |
| I3517 | 12 31.58.8 | +09 25 52 | 1.0 | 0.6 | Ir | H | 15.38 | NED | 0.0 | IC3517 |
| I3521 | 12 32.07.1 | +07 26 12 | 1.2 | 0.6 | BCD | H | 13.98 | NED | 0.0 | IC3521 |
| 28 | 12 32.44.4 | +58 39 45 | 0.5 | 0.3 | Ir | L | K 162 |
| 29 | 12 34.56.4 | +39 01 12 | 0.7 | 0.4 | Ir | H | 15.74 | 6m | 0.0 | Arp 211 |
| 30 | 12 35.13.0 | +07 22 42 | 1.2 | 1.0 | Ir | L | UGC 7795 |
| 31 | 12 38.09.0 | +47 38 21 | 0.5 | 0.2 | Ir | L |
| 32 | 12 38.31.3 | +40 53 03 | 1.7 | 0.4 | Ir | VL | AM 1238-405 |
| 33 | 12 39.06.9 | +40 05 13 | 1.1 | 0.7 | Ir | L | 16.7 | IK | 0.0 |
| 34 | 12 40.48.0 | +35 41 16 | 0.7 | 0.5 | Ir? | L | 17.4 | IK | 0.0 |
| 35 | 12 41.35.8 | +43 56 15 | 0.8 | 0.6 | Ir | L | 17.0 | IK | 0.0 |
| 36 | 12 42.10.0 | +71 03 52 | 1.1 | 0.7 | Ir? | L | 16.6 | IK | 0.0 | K 195 |
| 37 | 12 42.57.3 | +18 34 25 | 0.9 | 0.7 | Ir? | EL |
| 38 | 12 43.37.6 | +62 14 21 | 0.9 | 0.4 | Ir? | VL |
| 39 | 12 45.26.9 | +04 42 24 | 1.1 | 0.6 | Ir | H | 15.5 | IK | 0.01 |
| 40 | 12 46.27.6 | +32 14 33 | 0.7 | 0.7 | Ir? | L |
| 41 | 12 46.49.5 | +35 53 05 | 1.7 | 1.0 | Sph | L |
| KK | R.A. (1950.0) Dec. | a | b | Type | S.B. | B0 | Ref. (B) | A0 | Identification  |
|----|------------------|---|---|------|------|----|---------|----|----------------|
| 1  | 167 12 49 17.8   | +26 22 56 | 0.8 | 0.5 | Ir? | L   | 16.7  | IK  | 0.02          |
| 168| 12 50 37.8       | +03 42 44 | 0.5 | 0.4 | Ir? | VL  | 17.3  | IK  | 0.0           |
| 169| 12 50 41.3       | +12 54 24 | 0.8 | 0.6 | Ir  | L   | 17.1  | IK  | 0.05          |
| 170| 12 52 11.5       | −28 04 12 | 0.8 | 0.6 | Im  | L   | 17.01 | NED | 0.30 AM 1252-280 |
| 171| 12 53 03.1       | +33 15 22 | 0.7 | 0.6 | Ir? | L   |        |     |               |
| 172| 12 54 14.0       | +12 12 10 | 1.3 | 1.0 | Ir  | L   | 16.3  | IK  | 0.07 UGC 8061 |
| 173| 12 56 07.5       | +18 04 58 | 0.7 | 0.45| Ir  | L   | 17.2  | 0.11|               |
| U8091| 12 56 10.5     | +14 29 17 | 1.6 | 0.9 | Ir  | H   | 14.68 | NED | 0.04 UGC8091 |
| 174| 12 56 29.7       | −49 21 08 | 2.2 | 1.6 | Ir  | L   | 16.52 | NED | 0.89 FG 363   |
| 175| 12 56 38.7       | +35 45 03 | 0.6 | 0.4 | Ir? | L   | 17.1  | IK  | 0.01          |
| 176| 12 57 17.1       | −19 08 26 | 1.7 | 0.7 | Sph/| Ir  | VL   | 17.5| 0.17          |
| 177| 13 00 15.2       | +22 16 02 | 0.8 | 0.7 | Sph?| VL  | F 575-1|   |               |
| 178| 13 00 32.8       | +26 20 46 | 0.8 | 0.3 | Ir  | L   | F 508-1|   |               |
| 179| 13 02 02.1       | +18 01 37 | 1.4 | 0.7 | Sph/| Ir  | VL   | F 557-4|     |               |
| 180| 13 02 09.2       | +27 02 31 | 0.7 | 0.6 | Ir  | L   | 17.25 | NED | 0.0 F 508-v1 |
| 181| 13 02 12.8       | −39 48 54 | 1.0 | 0.55| Ir  | L   | 16.33 | NED | 0.37          |
| 182| 13 03 33.1       | −49 33 38 | 1.6 | 0.6 | Ir  | L   | ESO 210-G027| |               |
| 183| 13 04 14.8       | +18 16 08 | 0.6 | 0.45| Sph?| L   | 17.9  | 0.07|               |
| 185| 13 06 36.8       | +33 28 07 | 0.6 | 0.5 | Ir  | L   |        |     |               |
| 186| 13 07 03.5       | −23 16 35 | 0.7 | 0.3 | Im  | H   | AM 1307-231| |               |
| 187| 13 07 23.3       | −26 19 43 | 1.0 | 0.8 | Im  | H   | 17.3  | IK  | 0.31 AM 1307-263 |
| 188| 13 08 47.7       | +37 26 39 | 0.9 | 0.6 | Ir  | L   |        |     |               |
| 191| 13 11 24.8       | +42 18 31 | 0.8 | 0.7 | Sph?| EL  | 18.2  | IK  | 0.0           |
| 192| 13 12 02.7       | +36 50 08 | 0.7 | 0.5 | Sph?| L   | 16.7  | IK  | 0.0           |
| 193| 13 13 16.4       | +41 45 55 | 0.6 | 0.6:| Ir/Sph| EL  |       |     |               |
| 194| 13 15 07.3       | +44 39 44 | 0.6 | 0.4:| Ir? | VL  |       |     |               |
| 195| 13 18 20.5       | −31 16 05 | 1.3 | 0.6 | Ir  | VL  | 17.4  | IK  | 0.23          |
| 196| 13 18 49.9       | −44 48 05 | 0.6 | 0.4 | Ir? | L   | AM 1318-444| |               |
| 198| 13 20 07.0       | −33 18 23 | 0.6 | 0.5 | Sph?| L   |        |     |               |
| 200| 13 20 31.4       | −28 56 34 | 0.4 | 0.35| Ir  | EL  |       |     |               |
| 201| 13 21 48.1       | −30 42 43 | 1.3 | 0.8 | Im  | H   | 16.67 | NED | 0.19 K 15, AM 1321-304 |
| 202| 13 22 20.0       | −37 21 50 | 1.3 | 0.7 | Ir/Sph| VL  | AM 1321-372| |               |
| 203| 13 22 37.7       | −29 00 39 | 0.6 | 0.45| Ir  | L   |        |     |               |
| 204| 13 25 28.7       | −37 54 37 | 1.6 | 1.1 | Ir? | L   | 14.97 | NED | 0.24 FG 393, AM 1325-375 |
| 205| 13 26 46.8       | +67 53 28 | 1.2 | 0.5 | Ir  | L   | UGC 8509| |               |
| 206| 13 31 18.6       | +49 21 30 | 1.0 | 0.6 | Ir  | H   | 14.6  | PGC | MCG 8-25-18 |
| 207| 13 31 31.6       | +56 45 26 | 0.6 | 0.4 | Ir? | VL  |       |     |               |
| 208| 13 33 46.5       | −29 19 00 | 6:: | 2.5:| Ir  | EL  | 14.3  |     |               |
| 209| 13 35 52.8       | +49 22 26 | 0.4 | 0.25| Ir  | L   |        |     |               |
| 210| 13 37 31.2       | −31 26 47 | 1.4 | 0.6 | Im? | L   | 16.57 | NED | 0.11 FG 403   |
| 212| 13 39 12.6       | +43 32 31 | 0.8 | 0.6 | Ir? | L   | 15.9  | IK  | 0.0           |
| 215| 13 40 45.2       | −45 39 22 | 0.5 | 0.5 | Im  | L   | AM 1340-453| |               |
| 216| 13 41 24.2       | +43 42 43 | 1.1 | 0.5 | Ir  | H   | 14.8  | NED | 0.0 UGC 8688 |
| 218| 13 43 48.7       | −29 43 47 | 1.7 | 0.7 | Sph?| VL  |       |     |               |
| 219| 13 45 21.9       | +39 37 26 | 0.7 | 0.4 | Ir  | L   | 17.3  |     |               |

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K.K.Huchtmeier et al.: HI observations of nearby galaxies I. The first list of the Karachentsev catalog
| KK | R.A. (1950.0) | Decl. | a | b | Type | S.B. | B_r | Ref.(B) | A_b | Identification |
|----|---------------|-------|---|---|------|------|-----|---------|-----|----------------|
|    | h m s         | °      | " | " |      |      |     |         |     |                |
| 1   | 2             | 3      | 4 | 5 | 6    | 7    | 8   | 9       | 10  | 11             |
| 220 | 13 45 22.2    | +33 27 25 | 0.8 | 0.7 | Ir | L | 16.5 | IK | 0.0 |
| 223 | 13 46 07.8    | +40 48 08 | 0.4 | 0.3 | Ir? | L | 17.4 | IK | 0.0 |
| 224 | 13 46 52.8    | +43 50 54 | 1.0 | 0.4 | Ir | L | 16.9 | IK | 0.0 |
| 225 | 13 52 51.5    | +37 55 42 | 0.45 | 0.3 | Ir | L |
| 226 | 13 53 01.2    | −45 24 47 | 1.1 | 0.7 | Ir | L |
| 227 | 13 54 03.7    | +40 32 50 | 0.7 | 0.45 | Ir | L |
| 228 | 13 57 21.1    | +52 36 16 | 0.9 | 0.8 | Ir? | L | 16.6 | IK | 0.0 | UGC 8914 |
| 229 | 13 59 54.3    | −46 51 45 | 0.8 | 0.6 | Ir | L | 16.55 | NED | 0.49 | AM 1359-465 |
| 230 | 14 05 01.5    | +35 18 09 | 0.6 | 0.5 | Ir | VL | 16.9 | IK | 0.0 |
| 231 | 14 15 34.6    | +23 18 21 | 0.8 | 0.3 | Ir | L |
| 232 | 14 16 00.0    | −45 05 15 | 1.2 | 0.6 | Im | H | 14.62 | NED | 0.30 | AM 1415-450 |
| 233 | 14 40 48.0    | +50 01 40 | 0.9 | 0.5 | Ir | VL | 17.2 | IK | 0.05 |
| 234 | 14 45 51.4    | +53 02 31 | 1.1 | 0.7 | Ir | L | 15.9 | IK | 0.0 | MCG 9-24-40 |
| 235 | 14 57 13.6    | −51 31 55 | 1.7 | 0.6 | Ir | VL |
| 236 | 15 04 09.5    | +56 03 24 | 0.9 | 0.7 | Sph? | VL | 19.17 | UH | 0.01 |
| 237 | 15 06 46.1    | +56 27 03 | 0.7 | 0.5 | Ir? | L | 18.21 | UH | 0.17 | K 233 |
| 238 | 15 11 59.0    | −22 56 23 | 0.8 | 0.6 | Im | L | 17.11 | NED | 0.47 | FG 458,AM 1511-225 |
| 239 | 15 25 33.2    | −42 36 36 | 1.9 | 0.7 | Ir | L | 16.8 | IK | 0.22 |
| 240 | 16 22 23.0    | −59 02 30 | 0.8 | 0.6 | Im | H | 14.8 | IK | 0.90 | ESO 137- G27 |
| 241 | 16 22 59.4    | −60 20 53 | 1.6 | 1.0 | Ir | VL | 16.6 | IK | 0.89 | FG 447 |
| 242 | 17 53 18.0    | +70 08 41 | 0.8 | 0.6 | Sph? | EL | 19.0 | IK | 0.14 |
| 243 | 18 18 05.0    | −62 17 44 | 0.9 | 0.6 | Ir | L | 16.59 | NED | 0.44 | FG 458,AM 1818-622 |
| 245 | 19 16 17.0    | +63 52 54 | 1.5 | 1.2 | BCD | H | 17.06 | NED | 0.44 | FG 492 |
| 246 | 20 00 48.0    | −31 49 24 | 1.2 | 0.5 | Ir | VL | 15.65 | NED | 0.26 | AM 2004-611 |
| 247 | 20 04 51.7    | −61 12 30 | 0.9 | 0.6 | Ir | L | 17.54 | UH | 1.31 | UGC 11583 |
| 249 | 20 25 58.8    | −31 51 07 | 0.8 | 0.4 | Ir | L | 16.49 | UH | 1.28 |
| 250 | 20 29 31.9    | +60 11 03 | 1.6 | 0.8 | Ir? | VL | 16.15 | UH | 1.95 |
| 251 | 20 30 33.5    | +60 38 34 | 0.9 | 0.9 | Sph? | VL | 16.15 | UH | 1.95 |
| 252 | 20 33 30.7    | −69 21 58 | 1.0 | 0.9 | Ir | L | 16.39 | NED | 0.0 | FG 532,AM 2154-603 |
| 254 | 20 33 46.2    | +60 55 12 | 1.5 | 0.9 | Ir? | EL |
| 255 | 21 54 21.4    | −60 32 42 | 2.5 | 1.2 | Ir | L | 16.39 | NED | 0.0 | FG 532,AM 2154-603 |
| 256 | 22 09 04.6    | −43 25 29 | 0.6 | 0.5 | Im | L | 15.3 | IK | 0.0 | FG 545 |
| 257 | 22 19 25.2    | −48 39 26 | 2.2 | 1.3 | Ir | L | 15.3 | IK | 0.0 | FG 545 |
| 258 | 22 37 56.3    | −31 03 40 | 1.6 | 0.8 | Ir? | L | 16.39 | NED | 0.0 | FG 532,AM 2154-603 |
| 259 | 23 09 36.4    | −44 03 01 | 4.2 | 2.2 | Sm? | L | 16.39 | NED | 0.0 | FG 569 |
| 260 | 23 11 46.9    | −43 52 39 | 4.5 | 1.8 | Ir | VL |
Table 2. List of new Local Volume dwarf candidates

| KK | HI-flux | \( S_{\text{max}} \) | velocity | line width | distance | \( M_{\text{HI}} \) | HI mass | \( M_{\text{HI}}/L_B \) | Comments |
|----|---------|----------------|---------|-----------|---------|-------------|---------|---------------|---------|
| No. | Jy km s\(^{-1}\) | mJy km s\(^{-1}\) | km s\(^{-1}\) | km s\(^{-1}\) | Mpc | 10\(^{7}\) M\(_\odot\) | | | |
| 1 | \( \pm 15 \) | | | | | | | | |
| 2 | 2.66 | 57 \pm 5.9 | 361 \pm 2 | 50 62 76 | 5.4 | -15.70 | 1.9 | 0.06 | ATCA |
| 3 | \( \pm 24 \) | | | | | | | | |
| 4 | \( \pm 35 \) | | | | | | | | N |
| 5 | \( \pm 3.5 \) | | | | | | | | |
| 6 | \( \pm 4 \) | | | | | | | | |
| 7 | \( \pm 20 \) | | | | | | | | |
| 261 | 2.6 | 87 \pm 13 | 2694 \pm 2 | 32 40 41 | 35.9 | | | | ATCA |
| 8 | \( \pm 3.3 \) | | | | | | | | |
| 9 | \( \pm 8 \) | | | | | | | | |
| 10 | \( \pm 8.3 \) | | | | | | | | |
| 12 | \( \pm 3.6 \) | | | | | | | | |
| 13 | 1.33 | 40 \pm 7 | 357 \pm 9 | 31 45 52 | 7.0 | -13.15 | 1.5 | 0.53 | |
| 14 | 3.04 | 74 \pm 6 | 420 \pm 4 | 36 56 60 | 7.9 | -12.53 | 4.4 | 2.73 | |
| 15 | 0.9 | 27 \pm 6 | 368 \pm 4 | 25 37 40 | 7.2 | -11.69 | 1.1 | 1.51 | |
| 262 | 1.1 | 18 \pm 7 | 7356 \pm 3 | 105 124 126 | 99.8 | -20.55 | 2.6 | 0.10 | |
| 263 | 0.92 | 25 \pm 7 | 3841 \pm 4 | 38 48 50 | 53.5 | -15.49 | 6.1 | 2.48 | |
| 16 | 0.97 | 37 \pm 5 | 206 \pm 3 | 22 32 34 | 4.9 | -12.76 | 5.6 | 0.28 | |
| 17 | 0.95 | 28 \pm 5 | 156 \pm 3 | 34 52 53 | 4.2 | -11.34 | 5.1 | 0.95 | |
| 18 | \( \pm 3.8 \) | | | | | | | | |
| 264 | 3.28 | 34 \pm 6 | 2918 \pm 7 | 128 143 155 | 42.0 | -17.38 | 130 | 0.98 | |
| 19 | 46.4 | 930 \pm 4.6 | 35 \pm 2 | 49 | 3.5 | -15.87 | 14 | 0.39 | |
| 20 | 11.18 | 760 \pm 2.2 | -70.2 \pm 1 | 14 20 22 | | | | | |
| 21 | 9.0 | 160 \pm 10 | 189 \pm 3 | 60 79 85 | 5.3 | -13.57 | 6.0 | 1.44 | |
| 22 | 30.8 | 330 \pm 30 | 96 \pm 2 | 100 116 .. | 3.9 | -14.19 | | | |
| 23 | 205 | 960 \pm 30 | 112 \pm 2 | 187 202 204 | 4.1 | -16.04 | 40.6 | 2.05 | |
| 24 | \( \pm 3.7 \) | | | | | | | | |
| 25 | 8.84 | 54 \pm 3.7 | 2767 \pm 2 | 260 273 277 | 39.5 | -19.35 | 330 | 0.38 | |
| 26 | \( \pm 2.6 \) | | | | | | | | |
| 27 | \( \pm 8 \) | | | | | | | | |
| 28 | 26.1 | 349 \pm 30 | 216 \pm 1 | 81 92 96 | 4.3 | -15.83 | 11.0 | 0.34 | |
| 265 | 26.1 | 202 \pm 5 | 1378 \pm 2 | 144 178 187 | 21.1 | -18.33 | 280 | 0.83 | |
| 29 | 0.95 | 33 \pm 3 | 1152 \pm 5 | 38 52 56 | 12.6 | -14.38 | 3.6 | 0.41 | ATCA |
| 266 | 54.24 | 629 \pm 5.4 | 1434 \pm 1 | 53 119 125 | 21.8 | -18.60 | 600 | 1.41 | |
| 30 | 0.89 | 20 \pm 2.3 | 1159 \pm 6 | 45 59 61 | 18.1 | -15.23 | 7.0 | 0.36 | |
| 31 | \( \pm 8.1 \) | | | | | | | | |
| 32 | \( \pm 8 \) | | | | | | | | |
| 267 | 2.14 | 32 \pm 3.1 | 1140 \pm 8 | 99 110 .. | 20.4 | -16.67 | 15.0 | 0.19 | |
| 33 | \( \pm 5 \) | | | | | | | | |
| 34 | 3.26 | 61 \pm 4 | 1554 \pm 3 | 60 77 80 | 18.4 | -16.48 | 26.0 | 0.43 | ATCA |
| 35 | 0.82 | 35 \pm 6 | 119 \pm 3 | 25 .. .. | 2.1 | -12.11 | 0.085 | 0.08 | |
| 36 | 3.45 | 33 \pm 2.8 | 1267 \pm 7 | 120 134 142 | 19.5 | -16.87 | 31.0 | 0.35 | |
| 37 | 1.24 | 19.5 \pm 2.9 | 836 \pm 5 | 101 109 111 | 13.8 | -16.41 | 5.4 | 0.09 | |
| 268 | 7.68 | 80 \pm 2.2 | 1302 \pm 2 | 120 134 138 | 20.0 | -17.20 | 71 | 0.61 | |
| 38 | \( \pm 7 \) | | | | | | | | |

kk4 : heliocentric velocity = 1651 km s\(^{-1}\) (NED)  
kk7, 9, 10 : undetected in HI (2)  
kk8, 12, 5 : ANDI, II, III have been searched for HI within the radial velocity range -550 to 770 km s\(^{-1}\)  
kk18, 26, 32 : undetected in HI (3)  
kk20 : probably local HI  
kk35 : resolved, companion to IC342
| No. | Jy km s$^{-1}$ | mJy km s$^{-1}$ | km s$^{-1}$ | mJy km s$^{-1}$ | Mpc | 10$^7$ M$_\odot$ | M$_{HI}$/L$_B$ | Comment |
|-----|----------------|----------------|-------------|----------------|-----|----------------|--------------|----------|
| 269 | 6.83           | 69±5           | 1734±2      | 120 133 136    | 25.8 | -16.48        | 110          | 1.75     |
| 39  | 2.00           | 21±3.5         | 1732±4      | 123 125 126    | 25.7 | -14.73        | 17           | 1.42     |
| 40  | 2.87           | 53±5           | 1066±2      | 101 109 112    | 11.4 | -15.69        | 8.8          | 0.30     |
| 270 | 4.60           | 110±5          | 1159±1      | 42 57 59       | 18.1 | -16.09        | 36           | 0.85     |
| 41  | ±4.1           | ±5             |             |                |     |               |              |          |
| 42  | ±4.1           | ±5             |             |                |     |               |              |          |
| 43  | 7.95           | 135±26         | 1372±6      | 46 111 130     | 15.7 | -16.04        | 46           | 1.14     |
| 271 | 0.79           | 12±4           | 1581±25     | 96 120 121     | 22   | -16.11        | 80           | 1.86     |
| 44  | 4.47           | 220±15         | 77±1        | 18 28 32       | 2.2  | -11.14        | 0.50         | 0.54     |
| 45  | 4.50           | 108±15         | 955±3       | 58 78 83       | 9.9  | -13.26        | 10           | 3.29     |
| 46  | 1.34           | 54±5           | 1745±3      | 43 48 50       | 21.0 | -16.69        | 14           | 0.19     |
| 47  | ±6.4           | ±6             |             |                |     |               |              |          |
| 48  | 6.87           | 72±4.9         | 1850±2      | 96 120 121     | 22   | -16.11        | 80           | 1.86     |
| 49  | 8.92           | 140±6.7        | 455±2       | 55 84 87       | 4.8  | -15.26        | 4.9          | 0.25     |
| 50  | 2.08           | 21±5.1         | 1776±4      | 111 117 118    | 22.1 | -16.36        | 23           | 0.42     |
| 51  | ±4.9           | ±5             |             |                |     |               |              |          |
| 52  | 5.85           | 74±4.1         | 883±2       | 94 105 108     | 9.1  | -13.36        | 11           | 3.27     |
| 53  | 0.85           | 29±3.8         | 1253±3      | 34 42 44       | 13.2 | -14.39        | 3.5          | 0.39     |
| 54  | 3.12           | 97±6.4         | 491±2       | 29 35 39       | 3.4  | -12.71        | 0.89         | 0.47     |
| 55  | 1.26           | 53±5           | 824±6       | 51 63 66       | 7.5  | -13.59        | 1.7          | 0.39     |
| 56  | 0.85           | 13±3           | 2287±6      | 58 83 85       | 30.6 | -15.53        | 18.0         | 0.70     |
| 57  | 7.26           | 73±6           | 738±3       | 116 132 136    | 6.7  | -16.29        | 7.8          | 0.15     |
| 58  | 2.15           | 82±5           | 1054±2      | 27 35 37       | 10.3 | -15.07        | 5.4          | 0.32     |
| 59  | 4.04           | 94±6           | 1145±2      | 21 45 67       | 11.5 | -14.71        | 13.0         | 1.06     |
| 60  | ±4.3           | ±6             |             |                |     |               |              |          |
| 61  | ±6             | ±6             |             |                |     |               |              |          |
| 62  | 2.71           | 37±3.4         | 3100±10     | 94 114 124     | 41.5 | -15.90        | 110          | 3.07     |
| 64  | 2.90           | 25±3.5         | 3867±5      | 125 153 156    | 53.5 | -17.48        | 200          | 1.28     |
| 65  | 3.43           | 86±5           | 279±5       | 38 60 68       | 2.2  | -11.39        | 0.39         | 0.70     |
| 66  | 1.61           | 17±4           | 297±6       | 63 73 76       | 39.7 | -16.38        | 60           | 1.08     |
| 67  | ±4.7           | ±6             |             |                |     |               |              |          |
| 68  | ±6             | ±6             |             |                |     |               |              |          |
| 69  | 3.58           | 154±6          | 464±1       | 20 30 33       | 5.7  | -12.12        | 2.6          | 2.42     |
| 70  | ±5             | ±5             |             |                |     |               |              |          |
| 71  | 1.54           | 49±5.7         | 179±3       | 27 38 41       |     |               |              |          |
| 72  | ±6             | ±5.3           |             |                |     |               |              |          |
| 73  | ±6             | ±5.3           |             |                |     |               |              |          |
| 74  | ±5.2           | ±5.2           |             |                |     |               |              |          |
| 75  | 1.40           | 27±5.1         | 2866±4      | 68 79 81       | 34.6 | -15.54        | 40           | 1.56     |
| U5005| 6.93           | 0.66±3.6       | 3824±4      | 109 122 126    | 49.7 | -17.79        | 390          | 1.92     |
| 76  | ±7             | ±7             |             |                |     |               |              |          |
| 77  | ±5.5           | ±5.5           |             |                |     |               |              |          |
| 78  | 15.8           | 204±4.9        | 520±2       | 80 99 104      | 6.3  | -11.56        | 15           | 22.92    |
| 79  | 1.2            | 20±4           | 1638±8      | 61 73 90       | 21.0 | -14.75        | 13           | 1.01     |
| 80  | ±3.3           | ±3.3           |             |                |     |               |              |          |

kk 42 : undetected in HI (3) 
kk 61 : undetected in HI (6), companion of NGC2403 
kk 65 : companion of UGC 3974 
kk 68 : v=738 km s$^{-1}$ (1) 
kk 69, 70 : companion of NGC 2683 
kk 71 : local HI ? 
kk 74 : undetected in HI (5) 
kk 78 : UGC 5272B, confusion with UGC 5272 at 1.9'
| KK   | HI-flux S  | S\(max\) | velocity km s\(^{-1}\) | line width km s\(^{-1}\) | distance Mpc | \(M_B\) | HI mass \(10^8\) M\(_\odot\) | \(M_{HI}/L_B\) | Comment |
|------|------------|----------|----------------|----------------|-------------|---------|----------------|----------------|---------|
| 81   | 3.94       | ±8.5     | 165±6          | 185±1          | 21          | 31 35   | 84             | 2.53           |         |
| 82   | 1.54       | ±6.2     | 40±3.2         | 3769±6         | 35 48 55    | 47.3    | -15.75        | 84             |         |
| 83   |            | ±8       | 18±7           | 5.7            | ±4.6        |         |    |                |                |         |
| 84   | ±6         | ATCA     | 27±6.3         | 2788±2         | 32 62 63    | 37.2    | -17.11        | 27         | 0.25    |
| 85   | 2.5        | ±6       | 33±3.8         | 1206±4         | 95 105 108  | 14.9    | -14.66        | 13         | 1.15    |
| 91   | 2.74       | ±6.8     | 46±3.9         | 1371±3         | 71 79 81    | 17.5    | -14.39        | 19.0        | 2.19    |
| 92   | 1.52       | ±6       | 42±3.5         | 833±3          | 28 52 55    | 9.4     | -12.21        | 3.1         | 2.63    |
| 94   | 0.78       | ±6       | 9±2.2          | 1205±20        | 48 118 120  | 14.7    | -13.68        | 4.0         | 0.87    |
| 99   | 1.58       | ±26      | 19.6±3.3       | 3366±5         | 86 117 120  | 43.8    | -16.22        | 71         | 1.49    |
| 101  | 1.36       | ±3.3     | 21±5.6         | 1303±3         | 62 114 116  | 16.2    | -14.08        | 8.4         | 1.26    |
| 102  | 2.04       | ±8.8     | 28±3.7         | 1555±3         | 80 96 98    | 21.4    | -15.18        | 21         | 1.16    |
| 103  | 0.28       | ±4.2     | 15±4.2         | 592±5          | 23 30 32    | 8.9     | -13.09        | 0.53        | 0.20    |
| 107  | 6.99       | ±5       | 72±3.8         | 736±3          | 88 110 138  | 10.5    | -12.46        | 18         | 12.12   |
| 108  | 0.7        | ±4       | 37±4.5         | 214±3          | 11 23 36    | 3.4     | -10.28        | 0.19        | 0.95    |
| 111  | 1.79       | ±4       | 34±3.8         | 980±4          | 41 52 54    | 12.0    | -13.62        | 0.61        | 1.40    |
| 113  | 5.81       | ±31      | 129±3.1        | 1151±2         | 41 52 54    | 16.1    | -15.41        | 35         | 1.53    |
| 115  | 0.44       | ±4.3     | 14±3           | 1171±10        | 38 50 54    | 16.3    | -13.96        | 2.5         | 0.42    |
| 116  | 0.71       | ±4.8     | 23±3           | 841±3          | 34 42 44    | 10.9    | -13.23        | 2.0         | 0.65    |
| 118  | 17.12      | ±3.4     | 253±6.5        | 1785±1         | 70 85 89    | 20.8    | -15.30        | 180        | 8.73    |
| 120  | 2.32       | ±4       | 33±4           | 850±2          | 72 91 93    | 12.7    | -14.52        | 8.5         | 0.85    |
| 122  | 1.24       | ±7.6     | 25±3.5         | 1028±10        | 36 57 62    | 13.5    | -14.17        | 5.1         | 0.71    |

kk 82 : 15' from PGC 29086 (v=662 km s\(^{-1}\))
 kk 84 : companion of NGC 3115
kk 87 : heliocentric velocity 969 km s\(^{-1}\) (NED)
kk 88 : heliocentric velocity 263 and 2982 km s\(^{-1}\) (6)
kk 89 : highly probably member of M81 group, HI emission probably not from this object
kk 94, 96 : near Leo triplet
kk 103 : heliocentric velocity 1894 km s\(^{-1}\) (NED)
kk 108 : NGC 3782 (v=739 km s\(^{-1}\)) at 7.6' NW, definitely confused in HI
| No. | Jy km s$^{-1}$ | mJy km s$^{-1}$ | km s$^{-1}$ | Mpc | $10^7 M_{\odot}$ | $M_{HI}/L_B$ | Comments |
|-----|---------------|----------------|------------|-----|----------------|--------------|----------|
| 127 | 2.87          | 41±4.4         | 131±6     | 64  | 112 117       | -10.23       | 0.18     |
| 128 | 1.80          | 24±3.2         | 1690±2    | 56  | 73 76         | -14.72       | 19       |
| 129 | ±6.1          |                |           |     |               |              |          |
| 130 |              | 127           | 2.87      | 41  | 172±1         | -12.01       | 1.6      |
| 131 |              | ±4.6          |           |     |               |              |          |
| 132 |              | ±7.8          |           |     |               |              |          |
| 133 |              | ±7.8          |           |     |               |              |          |
| 134 |              | ±5            |           |     |               |              |          |
| 135 |              | ±4.2          |           |     |               |              |          |
| 136 | 1.63          | 43±5.2         | 567±4     | 42  | 55 58         | -13.60       | 2.6      |
| 137 |              | 138           | 1.39      | 45  | 3614±2        | -15.86       | 82       |
| 138 |              | 139           | 3.85      | 65  | 1074±3        | -14.40       | 20       |
| 139 |              | 140           | 3.22      | 57  | 1290±3        | -15.25       | 20       |
| 140 |              | 141           | 0.83      | 38  | 569±2         | -12.03       | 0.85     |
| 141 |              | 142           | ±7        |     |               |              |          |
| 142 | 6.2           | 98±3.8         | 706±2     | 66  | 80 85         | -13.75       | 19       |
| 143 |              | 144           | 8.41      | 187 | 483±1         | -12.91       | 7.9      |
| 144 |              | 145           | 3.1       | 6.1 | 707±4         | -13.78       | 9.5      |
| 145 |              | 146           | ±4.1      |     |               |              |          |
| 146 | 21.3          | 121±23         | 3026±3    | 173 | 284 288       | -18.06       | 6.90     |
| 147 |              | 148           | 3.36      | 85  | 602±3         | -13.46       | 4.6      |
| 148 |              | 149           | 3.0       | 56  | 407±2         | -14.10       | 2.7      |
| 149 |              | 150           | ±6.1      |     |               |              |          |
| 150 | 2.71          | 69±3.6         | 431±8     | 33  | 35 70         | -13.53       | 2.7      |
| 151 |              | 152           | 2.33      | 72  | 838±3         | -14.13       | 7.4      |
| 152 |              | 153           | 194±6.1   | 260 | 134 139       | -12.71       | 3.4      |
| 153 |              | 154           | 3.86      | 50  | 283±3         | -13.11       | 0.92     |
| 154 |              | 155           | 3.0       | 56  | 407±2         | -14.10       | 2.7      |
| 155 |              | 156           | ±6.1      |     |               |              |          |
| 156 | 2.18          | 46±5.4         | 455±4     | 31  | 42 60         | -13.53       | 2.3      |
| 157 |              | 158           | ±4.9      |     |               |              |          |
| 158 | 0.38          | 11±3.2         | 932±8     | 34  | 44 50         | -16.45       | 1.1      |
| 159 |              | 153           | ±4.9      |     |               |              |          |
| 159 | 2.18          | 46±5.4         | 455±4     | 31  | 42 60         | -13.53       | 2.3      |
| 157 |              | 156           | ±4.7      |     |               |              |          |
| 158 | 0.66          | 26±4.6         | 636±2     | 27  | 33 34         | -13.24       | 1.4      |
| 159 |              | 159           | 38±4.6    | 1822±4| 43 73 75     | -14.66       | 26.0     |
| 160 |              | 160           | 36±4.7    | 299±3| 28 40 44     | -11.53       | 0.51     |
| 161 |              | 161           | 30±3.1    | 1800±5| 72 82 88    | -15.63       | 24       |
| 162 |              | 162           | ±4.5      |     |               |              |          |
| 163 |              | 163           | ±4.6      |     |               |              |          |
| 164 | 9.04          | 214±4.5        | 993±2     | 30  | 47 50         | -15.07       | 30       |
| 165 |              | 165           | ±3.7      |     |               |              |          |
| 166 |              | 166           | ±7.6      |     |               |              |          |

**Notes:**
- kk 127: in spite of v=131 km s$^{-1}$ the galaxy looks distant
- kk 129: undetected in HI (7)
- kk 138: NGC 4295 (v=8568 km s$^{-1}$) at 4', no confusing object to be seen
- kk 146: heliocentric velocity 162 km s$^{-1}$ (6)
- kk 150: heliocentric velocity 468 km s$^{-1}$ (6)
- kk 155: heliocentric velocity 61 km s$^{-1}$ (6)
- kk 162: the object looks like an emulsion defect
- kk 164: v=4660 km s$^{-1}$ (NED), NGC 4688 (v=987 km s$^{-1}$) at 6.7' SW: confused
| No. | Jy km s$^{-1}$ | mJy km s$^{-1}$ | velocity km s$^{-1}$ | line width km s$^{-1}$ | distance Mpc | $M_B$ | HI mass $10^7 M_\odot$ | $M_{HI}/L_B$ | Comments |
|-----|---------------|----------------|---------------------|------------------------|-------------|------|------------------|--------------|----------|
| 167 | 1.99          | 51.3          | 1247               | 37 50 52               | 16.6        | -14.55 | 13               | 1.24         |          |
| 168 | 1.35          | 45.4          | 2785               | 39 41 54               | 35.8        | -15.53 | 33               | 1.31         |          |
| 169 | 1.65          | 39.4          | 1818               | 46 54 55               | 23.4        | -14.88 | 20               | 1.40         |          |
| 170 | 1.71          | 43.4          | 6414               | 35 55 59               | 6.5         | -12.57 | 1.7              | 1.04         |          |
| 171 |              | ±10           |                     |                       |             |        |                  |              |          |
| 172 | 2.0           | 43.5          | 560                | 53 64 66               | 6.6         | -12.96 | 2.1              | 0.88         |          |
| 173 | 2.58          | 74.8          | 1015               | 20 70 75               |             |        |                  |              |          |
| U8091 | 8.78          | 310.7        | 214                | 27 38 41               | 2.2         | -12.48 | 0.98             | 0.75         |          |
| 174 | 8.76          | 9.2           | 1905               | 138 145 147            | 22.2        | -16.19 | 100              | 2.18         | ATCA     |
| 175 | 2.28          | 68.4          | 701                | 38 43 48               | 9.9         | -13.00 | 5.3              | 2.15         |          |
| 176 | 3.41          | 92.5          | 828                | 41 48 50               | 8.9         | -12.62 | 6.2              | 3.58         |          |
| 177 |              | ±4.8          |                     |                       |             |        |                  |              |          |
| 178 |              | ±7.2          |                     |                       |             |        |                  |              |          |
| 180 |              | ±8            |                     |                       |             |        |                  |              |          |
| 181 | 3.64          | 45.6          | 1930               | 88 100 102             | 25.8        | -14.86 | 60               | 4.39         |          |
| 182 | 2.12          | 108.6         | 613                | 16 22 24               | 5.2         | -12.78 | 1.3              | 0.66         | ATCA     |
| 177 |              | ±7            |                     |                       |             |        |                  |              |          |
| 183 | 2.23          | 29.8          | 1573               | 87 93 95               | 5.2         | -10.75 | 1.4              | 4.53         |          |
| 185 |              | ±5.7          |                     |                       |             |        |                  |              |          |
| 186 |              | ±9.8          |                     |                       |             |        |                  |              |          |
| 187 | 1.70          | 39.5          | 2087               | 38 80 85               | 25.3        | -15.27 | 26               | 1.31         |          |
| 188 |              | ±8.5          |                     |                       |             |        |                  |              |          |
| 191 | 2.41          | 40.6          | 368                | 62 81 92               | 5.9         | -10.71 | 2.0              | 6.69         |          |
| 192 | 0.67          | 22.5          | 1203               | 27 37 40               | 16.8        | -14.52 | 4.0              | 0.40         |          |
| 193 |              | ±4.4          |                     |                       |             |        |                  |              |          |
| 194 |              | ±6            |                     |                       |             |        |                  |              |          |
| 195 | 5.5           | 200.2         | 564                | 21 27 30               | 4.9         | -11.51 | 3.1              | 5.0          | N        |
| 196 |              | ±36           |                     |                       |             |        |                  |              | ATCA     |
| 198 |              | ±32           |                     |                       |             |        |                  |              | N        |
| 199 |              | ±7            |                     |                       |             |        |                  |              |          |
| 200 | 1.33          | 57.8          | 485                | 20 31 34               | 3.9         | -11.62 | 0.51             | 0.74         |          |
| 201 |              | ±28           |                     |                       |             |        |                  |              | N        |
| 202 |              | ±6.9          |                     |                       |             |        |                  |              |          |
| 204 | 5.6           | 95.2          | 1463               | 71 89 98               | 16.7        | -16.50 | 37               | 0.60         | N        |
| 205 |              | ±4.3          |                     |                       |             |        |                  |              |          |
| 206 | 6.2           | 115.9         | 588                | 57 71 89               | 9           | -15.43 | 12               | 0.51         |          |
| 207 |              | ±5            |                     |                       |             |        |                  |              |          |
| 208 | 36.2          | 878.12        | 400                | 36 59 65               |             |        |                  |              |          |
| 209 |              | ±5.2          |                     |                       |             |        |                  |              |          |
| 210 | 6.4           | 100.18        | 1650               | 89 98 102              | 20.2        | -15.31 | 62               | 2.97         | N        |
| 212 | 1.07          | 23.4          | 1241               | 57 65 68               | 17.9        | -15.44 | 9.0              | 0.39         | ATCA     |
| 215 |              | ±7            |                     |                       |             |        |                  |              |          |
| 216 | 5.30          | 90.51         | 1355               | 63 82 89               | 19.4        | -16.77 | 50               | 0.63         |          |
| 218 |              | ±15           |                     |                       |             |        |                  |              |          |
| 219 | 0.85          | 17.4          | 1276               | 68 98 99               | 17.9        | -14.15 | 6.4              | 0.90         |          |

kk 170 : HI detection by Matthewson & Gallagher (1995)
kk 174 : $v=1905$ km s$^{-1}$ conflicts with the galaxy morphology
kk 177, 180 : undetected in HI (7)
kk 191 : NGC 5055 ($v=510$ km s$^{-1}$, $W=406$ km s$^{-1}$) at 24.1' E, possible confusion through far sidelobe
kk 192 : NGC 5033 ($v=876$ km s$^{-1}$, $W=452$ km s$^{-1}$) at 10.8' W, different velocity range, no confusion
kk 205 : undetected in HI (6)
kk 208 : 20' from NGC 5236, confusion with the extended HI-halo of M83 (4)
| No. | Jy km s$^{-1}$ | mJy km s$^{-1}$ | km s$^{-1}$ | km s$^{-1}$ | Mpc | $10^7 M_\odot$ | $M_{HI}/L_B$ | Comments |
|-----|----------------|-----------------|-------------|-------------|-----|----------------|--------------|-----------|
| 220 | 0.8            | 33±5.6          | 769±2       | 27 33 34    | 11.1| -13.76        | 2.3          | 0.47      |
| 223 | 4.26           | 53±5.5          | 2594±8      | 69 130 138 | 35.8| -15.45        | 130          | 5.51      |
| 224 | 0.84           | 25±6.7          | 1156±6      | 26 43 54    | 16.8| -14.49        | 5.3          | 0.55      |
| 225 | ±6.3           |                |             |             |     |                |              |           |
| 226 | ±7             |                |             |             |     |                |              | ATCA      |
| 227 | ±7.8           |                |             |             |     |                |              |           |
| 228 | 1.55           | 41±5.9          | 1972±3      | 44 64 66    | 28.1| -15.68        | 30           | 1.02      |
| 229 | 0.31           | 25±3            | 1355±1      | 14 21 24    | 15.3| -19.45        | 1.7          | 0.12      |
| 230 | 1.87           | 113±6.4         | 61±1        | 20 29 32    | 1.9 | -9.57         | 0.17         | 1.58      |
| 231 | ±7.1           |                |             |             |     |                |              |           |
| 235 | 9.08           | 106±5           | 1633±3      | 122 148 153 | 19.2| -17.30        | 79           | 0.61      |
| 232 | 0.86           | 24±5.5          | 2960±9      | 37 47 51    | 41.5| -16.11        | 36           | 0.83      |
| 233 | 4.18           | 55±4.5          | 724±2       | 76 91 93    | 11.9| -14.60        | 14           | 1.26      |
| 234 | ±6             |                |             |             |     |                |              |           |
| 236 | 5.18           | 20±6            | -150±1      | 21 34 36    |     |                |              |           |
| 237 | 5.22           | 174±5.6         | -177±1      | 24 34 37    |     |                |              |           |
| 238 | 2.03           | 32±5.9          | 2435±9      | 58 88 92    | 36.0| -16.22        | 64           | 1.34      |
| 239 | ±6             |                |             |             |     |                |              |           |
| 240 | 5.2            | 30±3            | 1371±5      | 176 188 191 | 16.1| -17.55        | 13           | 0.08      |
| 241 | 12.32          | 174±8           | 1152±3      | 65 90 84    | 13.2| -15.03        | 51           | 3.17      |
| 242 | 2.03           | 44±3            | 426±6       | 100 118 133 | 9.1 | -11.01        | 8            | 20.15     |
| 243 | 2.17           | 957±2           | 32 60 70    | 11.0        | -14.18| 6.8           | 0.78        |           |
| 245 | ±4             |                |             |             |     |                |              |           |
| 246 | 8.3            | 149±30          | 358±3       | 53 60 71    | 5.4 | -12.28        | 5.3          | 3.68      |
| 247 | ±7             |                |             |             |     |                |              |           |
| 249 | 18.8           | 68±20           | 2089±10     | 124 131 158 | 28.5| -17.09        | 360          | 2.93      |
| 250 | 20.0           | 244±6           | 1274±2      | 90 104 107  | 5.6 | -14.54        | 15           | 1.44      |
| 251 | 14.62          | 223±8           | 126±2       | 64 87 94    | 5.6 | -13.72        | 11           | 2.23      |
| 252 | 1.36           | 45±5            | 132±3       | 27 47 50    | 5.6 | -14.56        | 1.1          | 0.10      |
| 253 | ±7             |                |             |             |     |                |              |           |
| 254 | ±8             |                |             |             |     |                |              |           |
| 255 | 1.16           | 63±4            | 1682±1      | 36 44 48    | 21.1| -15.45        | 12           | 0.52      |
| 256 | ±7             |                |             |             |     |                |              |           |
| 257 | 3.36           | 70±5            | 705±1       | 77 80 84    | 8.8 | -14.59        | 6.2          | 0.58      |
| 258 | ±32            |                |             |             |     |                |              |           |
| 259 | ±7             |                |             |             |     |                |              |           |
| 260 | ±6             |                |             |             |     |                |              |           |

**kk 223:** 6.5 arc min NE of UGC 8726 ($v=2334$ km s$^{-1}$), confused
**kk 227:** companion of NGC 5371
**kk 236, 237:** probably local HI
**kk 242:** near NGC 6503, no obvious confusing object within the antenna beam and 1st sidelobes
**kk 245:** resolved into stars with the 6-m telescope (SAO), $v=-157$ km s$^{-1}$ (1)
**kk 254:** undetected in HI (3)
**kk 260:** near NGC 7531

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7. Schombert J.M. et al., 1992.