RADIO CONTINUUM OBSERVATIONS OF THE NORTH POLAR SPUR AT 1420 MHz

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Radio continuum observations at 1420 MHz of the North Polar Spur (NPS) were made with the 100-m telescope. Contour maps are presented for the region of $-6^{\circ} \le b \le +20^{\circ}$, $16^{\circ} \le 1 \le 35^{\circ}$ with a HPBW of 10' in order to study the fine structure of the spur. The Narrow Neck region is nearly resolved and is shown to have many subridges. A sharp, thin ridge is found to extend from the main NPS ridge towards lower galactic latitudes, reaching as low as $b=2^{\circ}$. A list of 250 radio sources stronger than 0.25 Jy in the observed region is presented. Source counts show that point sources at $b>6^{\circ}$ are mostly extragalactic. Discussions are given of radio features of the NPS and some other interesting objects found in the mapped region.

Key words: Galactic radio Emission - North Polar Spur - Radio Sources

1. INTRODUCTION

The North Polar Spur is one of the most prominent features in the radio continuum background at high galactic latitudes ($b \gtrsim 10^{\circ}$). It is part of a nonthermal radio ridge along a giant arc on the sky, Loop I, which has an apparent diameter of about 110° . It is not yet clear whether Loop I continues at negative latitudes. Many continuum observations of the background radio emission have covered this spur at various frequencies (see Berkhuijsen (1972) and references therein; Haslam *et al.* (1974)). The highest frequency used up till now was 820 MHz. In all these observations the main ridge of the NPS extends roughly from $(l, b) \cong (26^{\circ}, 10^{\circ})$ towards the north, reaching as high as $b \cong 70^{\circ}$. Because of insufficient resolution (HPBW>0.5°), none of these observations resolved the narrowest part of the NPS.

In this paper we present new radio continuum data at 1420 MHz for the lower part of the NPS, i.e., $-6^{\circ} \le b \le +20^{\circ}$ and $16^{\circ} \le l \le 35^{\circ}$, with a resolution of 10' (HPBW). The primary aim of the present observations is to study the fine structure of the NPS, in particular, of the Narrow Neck region, and to examine its further extension towards the galactic plane.

2. OBSERVATIONS AND REDUCTION

The observations were made in April 1977 and April 1978 using the 100-m telescope in Effelsberg of the Max-Planck-Institut für Radioastronomie. The allocated observing time was about 30 hours. The frequency was centered at 1420 MHz with a rejection filter against the neutral hydrogen line emission. The resulting bandwidth was 18 MHz. The major part of the observations was done in 1977 with a cooled parametric amplifier. The observations were done in the Dicke-switched mode using a helium cooled load. The system noise temperature was about 80 K. In 1978 additional measurements were done for the area $5.5^{\circ} \le b \le 8.5^{\circ}$, $23^{\circ} \le l \le 30^{\circ}$ and $-4^{\circ} \le b \le 3^{\circ}$, $l \le 20^{\circ}$ using a double channel uncooled parametric amplifier of 30 MHz bandwidth in the total power mode. The gain stability was good, but the system temperature

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Max-Planck-Gesellschaft zur Förderung der Wissenschaften E.V. M.P.I. f. Radioastronomie, Bonn Sonderdruck Nr 359, Ser. A for each channel was slightly higher than 80 K. Both equipments in 1977 and 1978 gave comparable results. The radio sources 3C345, 3C48 and 3C286 were used as flux and pointing calibrators. The HPBW of the antenna was roughly 9'.

Scans were made along constant galactic latitudes at an interval of 4' at a scanning rate of 5° to 6° per minute. In order to derive the total intensity each area was scanned twice using orthogonal polarization angles. The integration time was 0.7 to 0.8 second effectively per data point. Reference scans were made along a few constant longitude lines for each field. For practical reasons the field between $b=5.5^{\circ}$ and 8.5° taken in 1978 was scanned in latitude.

The resulting map was slightly smoothed to a HPBW of 10' in order to increase the signal-to-noise ratio. Scanning effects were removed using a statistical method described in the Appendix. The data reduction was based on the programs of Neidhöfer *et al.* (1978) and Haslam (1974). The relatively strong sources, 4C+04.63 at $(l. b)=(32^{\circ}45', 10^{\circ}37')$ and PKS1735+35 at $(27^{\circ}29', 17^{\circ}55')$, were used as secondary calibrators. Additional areas around these sources were mapped, smoothed to 10' HPBW and compared with 3C286 whose flux was taken as 14.9 Jy (Genzel *et al.* 1976). The flux density of 4C+04.63 is determined to be 2.29 ± 0.19 Jy, and PKS1735+35 to be 1.53 ± 0.09 Jy. Some strong point sources near the galactic plane were also used for calibration; their flux densities were taken from Altenhoff *et al.* (1970). The aperture efficiency and the main beam efficiency were taken as 0.53 and 0.73, respectively (Internal Report of MPIfR, 1973). For our 10' effective HPBW we derive the relation T_b (in K)=1.89 S (in Jy) with an error of 10 percent, taking empirical values from our calibration sources.

The rms noise was determined in an area of $0.5^{\circ} \times 0.5^{\circ}$ around $(l, b) = (34.3^{\circ}, 16.7^{\circ})$. No sources or extended structure can be seen here. We found an rms noise in T_b of 44 mK, slightly higher than the theoretical value of 30 mK. The larger value may be due to weather conditions, ground radiation effects, receiver gain instabilities and remaining interferences. The baselines of the maps were difficult to determine, because the elevation angle was mostly between 20° and 30° . We chose to adjust the baselines in such a way that the smoothed distribution of T_b becomes consistent with the 408 MHz data (HPBW 37') of Haslam *et al.* (1974) taken with the same telescope, assuming a temperature spectral index of $\beta = 2.6$ (Wilson 1976), where $T_b \alpha v^{-\beta}$. A constant temperature correction was added to the whole region which sets the minimum temperature observed around $(l, b) = (27^{\circ}, 19^{\circ})$ to zero. This adjustment holds for the area $b \ge 8^{\circ}$. Between $b = 4^{\circ}$ and -4° the base levels were adjusted to the 1420 MHz data of Altenhoff *et al.* (1970). Necessarily our maps are not independent of these data used for the baseline adjustment, which influences the large-scale structure. However, the primary purpose of the present observations, to study fine structures in the NPS, is not affected.

3. CONTOUR MAPS

The results are shown in figures 1a-f, where the distribution of main beam total brightness temperature T_b is presented in the form of contour maps. The minimum contour interval, 0.15 K, is 3-4 times the rms noise of the map. Outstanding features like the Galactic plane and the NPS are readily recognized on the map and are discussed in section 5.

Besides the fine structures associated with the NPS, we aim at examining its further extension towards the Galactic plane. The steep intensity gradient due to the Galactic emission, expecially below $b=6^{\circ}$, makes it difficult to see such extended structures. To remove this difficulty we subtracted a smooth background from the map: the original map (figure 1) was convolved with a gaussian beam of HPBW $3^{\circ} \times 1^{\circ}$ (in l and b directions) for the field above $b=6^{\circ}$, and with a beam of $2^{\circ} \times 0.5^{\circ}$ for the field below $b=6^{\circ}$, yielding $\overline{T}_b{}^0$. Residual temperatures $\Delta T_b{}^0 = T_b - \overline{T}_b{}^0$ were then subtracted from the original map only when $\Delta T_b{}^0$ is positive, yielding a map $T_b{}^1$. The map $T_b{}^1$ consists of two parts: where $\Delta T_b{}^0 \le 0$, it is equal to the original map $T_b{}^1$; where $\Delta T_b{}^0 > 0$, it is replaced by the smoothed values $\overline{T}_b{}^0$. Hence the map $T_b{}^1$ is equal to the original

map T_b , except that small ridges and peaks are cut off at the level \overline{T}_b^0 . The map T_b^1 was then again convolved with the same smoothing beam to get a smooth background \overline{T}_b^1 .

Finally a residual distributions $\Delta T_b^{\ 1} = T_b - \overline{T_b}^{\ 1}$ was obtained, which is shown in the form of a grey-scale plot with superposed contours in figure 2a. The figure exhibits the NPS structure more clearly than in figure 1, as well as many other features like point sources, extended galactic sources, and some other spur like features emerging from the Galactic plane. Figure 2b shows a contour plot of the smooth background $\overline{T_b}^1$ which has been subtracted from the original map.

4. POINT SOURCES

Many discrete sources are found in figure 1, and table 1 lists those with flux densities greater than 0.25 Jy. Salter's method (private communication) of finding sources and fitting them with a gaussian distribution was applied to the field: a flat background was assumed around each source. The peak positions and peak flux densities per beam of non-gaussian sources were found from our own program. In table 2 the integrated counts of sources per square degree $N(S_0)$ are given for $b>6^\circ$ as function of limiting flux density S_0 , and compared with counts from the literature (Maslowski 1973). For the point sources we find good agreement with the result of Maslowski at $b>20^\circ$, who used the same HPBW as ours. We may therefore conclude that the point sources seen at $b>6^\circ$ are mostly extragalactic. The NPS does not seem to contribute many point sources at the flux densities under consideration.

It is also of interest to see how the number density of sources varies with galactic latitude. Figure 3 shows the integrated source counts in several b-strips each 2° wide for the two cases of S > 0.25 and 0.5 Jy. The density of sources including extended ones (P and E) is highest at the Galactic plane, decreases steeply up to $b=6^{\circ}$, and reaches a constant value at $b \ge 6^{\circ}$. On the other hand the point source density does not seem to depend on galactic latitude. After subtraction of the constant component determined at $b \ge 6^{\circ}$ the density of P and E sources is well fitted by a gaussian distribution around the Galactic plane with a half thickness of 2° . If we assume that the sources are distributed uniformly in a disk of 10 kpc radius, they are mostly within 400 pc from the Galactic plane.

5. COMMENTS ON OUTSTANDING FEATURES

a) The North Polar Spur

Figures 1 and 2 reveal many structures associated with this spur. Below we discuss some remarkable features.

- i) NPS and its Narrow Neck: In figure 1 the main ridge of the NPS runs from $(l, b) = (33^{\circ}, 20^{\circ})$ down to $(22^{\circ}, 3^{\circ})$. The apparently narrowest part, so called Narrow Neck, is around $(l, b) = (29^{\circ}, 13^{\circ})$ to $(30^{\circ}, 16^{\circ})$. Its typical width is about 0.8° . The spur structure in this region has been fully resolved except for point sources which we believe to be mostly extragalactic. We note that no significant narrowing of the ridge is seen in the Narrow Neck region, but the ridge becomes narrower at $(l, b) = (24^{\circ}, 5^{\circ})$. Also remarkable is a splitting of the spur into several subridges, which are seen at $(l, b) = (33^{\circ}, 20^{\circ})$ and $(30^{\circ}, 20^{\circ})$, at $(31.5^{\circ}, 16^{\circ})$ and $(30.8^{\circ}, 16^{\circ})$, and at $(30^{\circ}, 12^{\circ})$, $(28.5^{\circ}, 12^{\circ})$ and $(27^{\circ}, 11^{\circ})$.
- ii) Low-b extension of the NPS: A remarkable finding of the present observations is a narrow radio ridge which extends from $(l, b) = (24^{\circ}, 6^{\circ})$ to $(22^{\circ}, 3^{\circ})$. It seems to be an extension of the main ridge of the NPS, but makes a sharper angle $(40^{\circ}-45^{\circ})$ with the Galactic plane than the main ridge. Its thickness around $(l, b) = (23^{\circ}, 4^{\circ})$ is about 0.3° . The ridge seems to split into two parts at $(l, b) = (22.5^{\circ}, 3.6^{\circ})$: the southern branch leads toward a strong point source at $(l, b) = (21.0^{\circ}, 2.0^{\circ})$, and the northern branch in the direction of the large HII region S49 (NGC6604) at $(18.5^{\circ}, 2^{\circ})$.

The point source on the southern branch has a flux density of 7.09 ± 0.51 Jy at 1420 MHz (table 1) and has a non-thermal spectral index of $\alpha = -0.56$ at >400 MHz, but a thermal spectral index of $\alpha = 0$ below 400 MHz. The HII region S49 and its connection to another large HII region S51 (M17) located at $(l, b) = (16.9^{\circ}, 0.9^{\circ})$ are discussed in the next subsection. We find no direct extension of this ridge to lower latitudes or below the galactic plane.

We searched for possible optical counterparts to this low-b extension of the NPS on the Palomar Sky Atlas and on the H\alpha Atlas of the Milky Way (Sivan 1974). But we failed to find any possible associated features either in emission or in absorption. We also examined distributions of starlight polarization in this field using data of Mathewson and Ford (1971), again failing to find any associated feature. The directions of polarization vectors (or magnetic field direction) are roughly perpendicular to the ridge in this field, and there is no significant change in polarization features across the ridge.

iii) Ridge thickness: In figure 4 we plot the thickness of the NPS against galactic latitude. The figure shows that the width increases linearly with latitude. We note that wide features ($\sim 3^{\circ}$) might be difficult to detect at low latitude ($b \lesssim 6^{\circ}$) because of the complex structures near the galactic plane. Figure 4 gives therefore the b-dependence of the mean narrowest width of the NPS.

b) Some other remarkable features

i) Two large HII regions, S49 and S51: Two strong extended radio sources are seen at $(l, b) = (18.6^{\circ}, 1.9^{\circ})$ and $(16.9^{\circ}, 0.9^{\circ})$, which are identified with the HII regions S51 and S49 (Sharpless 1959) (NGC6604 and 6611), respectively. Their temperature spectral indices are $\beta = 2.1$ for S51 and 2.2 for S49, which indicates that they are thermal sources. Both sources are located at a distance of 2.3 kpc (Minn and Greenberg 1973). In figure 1 we can recognize a radio bridge connecting these two sources, running from $(l, b) = (17.9^{\circ}, 1.8^{\circ})$ to $(17.4^{\circ}, 1.0^{\circ})$. The bridge might suggest a physical relation between these two HII regions, which agrees with the fact that they are located at the same distance from the sun. We remark that their optical appearance is very similar to the Orion Nebulae. S49 is associated with a dark nebula which resembles the Horse Head Nebula.

These two HII regions are located apparently on an extension of the low-b ridge of the NPS (northern branch). However, it is not clear whether there exists a relation between these HII regions and the NPS. If they were physically related, the distance of 2.3 kpc would disagree with current interpretations of the spur. The supernova-remnant hypothesis (e.g., Berkhuijsen 1971) postulates a distance of about 100 pc, and the galactic center explosion hypothesis (Sofue 1977) requires a distance of 8 kpc. Only the hypothesis that the NPS is due to a high-z non-thermal bank along a shocked inter-arm link between the local and Sagittarius arms (Sofue 1973) would be in agreement with this distance.

ii) Chain of radio sources: A peculiar chain of point sources is found centered at $(l, b) = (33.2^{\circ}, 12.4^{\circ})$, where we count five sources (A-E in figure 5) within a thin strip of 5' wide and 1.5° long. The most northern source A is 4C + 06.64. We also find a point source F very near this chain at $(32.5^{\circ}, 12.5^{\circ})$. A radio bridge of about 0.3 K is seen, which extends from this chain towards the strong source G (4C + 04.63) at $(l, b) = (32.8^{\circ}, 10.6^{\circ})$. Both sources A and G have a non-thermal spectral index of -0.8 and -1.0, respectively. Figure 5 shows the contour map around this object, where the surrounding region was set to zero. Table 3 gives exact coordinates and flux densities of the sources in figure 5.

According to our source count in section 4, most of the point sources above $b=6^{\circ}$ are extragalactic. We may therefore conclude that the present association of sources is probably extragalactic. Possible interpretations are that this association is: a) a cluster of galaxies hidden by galactic dust because of its low galactic latitude (no cluster of galaxies is catalogued by Zwicky et al. (1960)); b) multiple radio sources associated with an active central galaxy at $(l, b) = (33.0^{\circ}, 11.6^{\circ})$; c) a positional coincidence of unrelated sources. A deep careful optical survey as well as further radio observations with higher resolution is desirable.

APPENDIX: CORRECTION FOR SCANNING EFFECTS

Due to ground radiation, weather conditions and receiver instabilities, base levels of individual scans are not necessarily constant. This appears on a final map as a scanning effect, or elongations of contour lines in the scan direction. To remove these effects, we applied the following method.

We assume that variations of the base levels along individual scans are independent of neighbouring scans. We also assume that the variation along each scan is a smooth function of distance along the scan direction. Suppose that the original map is composed of a mesh of $L \times M$ points and each grid at (i, j) has a data value T_{ij} (i=1, 2, ... L, j=1, 2, ... M). We smooth the map by a beam function with wider HPBW than the original (2-3 times the original HPBW) to get \overline{T}_{ij} , where \overline{T}_{ij} is the data value at the (i, j)-th grid of the smoothed map. In the \overline{T}_{ij} , the scanning effect which appeared originally in T_{ij} has already been smeared out, or "pressed out". Therefore a difference,

$$\Delta T_{ij} = T_{ij} - \overline{T}_{ij} \tag{1}$$

should include information only about the scanning effect and structures smaller than the smoothing HPBW. Suppose now that the scanning was made in the i-direction. The difference ΔT_{ij} is then distributed at random around a smooth function which represents the scanning effect. Here we fit ΔT_{ij} with a polynomial of n-th order,

$$\Delta T_{ij} = \sum_{m=1}^{n} a_m^j i^m = s_{ij}. \tag{2}$$

The coefficients a_m^j are determined by a least squares method. Finally s_{ij} is subtracted from the original map to get a "true" distribution T_{ij}^0 ;

$$T_{ij}^0 = T_{ij} - s_{ij}. (3)$$

Throughout this paper we used a gaussian beam of HPBW=20' (twice the original) as a smoothing function, and second order polynomials (n=2). To avoid the influence of strong radio sources, data points exceeding 10 σ were omitted from the least squares fitting, where σ is a standard deviation along each scan.

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Table 1 List of 250 radio sources at 1420 MHz in the mapped region in figures 1a-f. There are given their galactic coordinates (b, l), peak flux densities (S_p), total flux densities (S), types (P: point; E: extended), spectral indices (α), and identifications with sources in other catalogues (name, flux density, and frequency). See also notes to this table below.

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М. Б	77 00 ⁰ 06:0 78 00 07.8 79 00 07.8	8	81 00 08.1 82 00 10.8	83 00 10.2 84 00 12.4	00 17.		888 33.88		91 00 35.1	92 00 ⁰ 48:0 93 00 50.30		2 2	1 1	5 55	01 27. 01 37. 01 43.	101 01 44.3 102 01 46.2	103 01 54.0	104 01 57 03	; ;			106 01 58.2	
																		=	4				
fon Freq. (MHz)	2695 5000 2700 3130 1414			1414 2695 5000 408 1414		2/00 408 1414 2605 5000	2700 2700 1414 265	2700 2000 1800 1800	188888	2695	2700 2700 1414 265	5000 1410 2650 1414	2695 5000 2700	1414 2695 2700	408 408 1414 2695	2700 2700 1414	2695 2700 1414 2695	2700	1414 2695 408 1414	2695 5000 2700	2695	2700 408 1414 2695	1414 2695 5000 2700
ntification Flux Freq. (Jy) (MHz)		. 4. %	6911.69	22. 22. 20. 20.	61.14.65.43	. *	25. 2700 46. 5000 3.7 408 19. 2700 16. 1414	3 123 2	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	23. 5000 26. 2700 12.3 408 7. 2695	10. 5000 3.5 1410 5. 2650 12. 1414	9 6. 4 .	. e. g	9. 408 10.6 408 23. 1414 23. 2695	19. 18.7 17.	17. 2695 16. 5000 19. 2700 6. 1414 5. 2695	8.9 2700	1. 1414 1. 2695 11.3 408 15. 1414	85.5	14. 5000 10. 1414 8. 2695	18. 2700 2.2 408 3. 1414 2. 2695	13.13.13.13.13.13.13.13.13.13.13.13.13.1
Identification Flux Freq. (3y) (MHz)		. 4. %	6911.69	22. 22. 20. 20.	61.14.65.43	. *	25. 2700 46. 5000 3.7 408 19. 2700 16. 1414	3 123 2	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	23. 5000 26. 2700 12.3 408 7. 2695	10. 5000 3.5 1410 5. 2650 12. 1414	9 6, 4	. e. g	9. 408 10.6 408 23. 1414 23. 2695	19. 18.7 17.	17. 2695 16. 5000 19. 2700 6. 1414 5. 2695	8.9 2700	1. 1414 1. 2695 11.3 408 15. 1414	85.5	14. 5000 10. 1414 8. 2695	18. 2700 2.2 408 3. 1414 2. 2695	13.13.13.13.13.13.13.13.13.13.13.13.13.1
Identification Flux Freq. a Name (3y) (MHz)	25. 2695 23. 5000 6D019.0-00.3 49. 2700 KLNS 35. 230.3130 ADG016.6-00.3 4. 1414	. 4. %	AJG080 100. ADG022.8-00.3 66. 51. GD027.8-00.8 69. GS022.8-00.5 46.	ADG018.2-00.3 27. 26. AJG089 45. SG023.1-00.2 45. ADG02300.3 50.	36. 60023.1-00.3 65. A0G020.0-00.2 14.		2700 2700 1414 265	DG019.6-00.2 13. CUL183-06 15.	7.5 17.0 159 3.8 408 25.7 750 29.7 1400 24. 1414	2695	65025.3-00.2 23.5000 60025.4-00.2 26.2700 50025.4-00.2 12.3 408 2 A06026.6-00.1 11.1414	5000 1410 2650 1414	9 6, 4		9, 408 10,6 408 23, 1414 23, 2695	19. GD024.7-00.1 28. 08 BG1826-11 18.7 ADG020.7-00.1 17.	17. 2695 16. 5000 16. 5000 5. ADG026.1-00.0 6. 11414 5. 2695	8.9 2700	1414 2695 408 1414	85.5	6 ADG021.9-00.0 14. 5000 6 ADG021.9-00.0 10. 1414 8. 2695	60021.9+00.0 18. 2700 56024.4+00.1 2.2 408 4 Ab6016.7+00.1 3.1414 2. 2695 50 004 0.00 112.2 409	GD024.8+00.1 13.
Type a Na		2. 6D016.6-00.3 8.4 E SG022.7 UO.5 236.	AJG080 ADG022.8-00.3 66. 51. GD027.8-00.8 69. GS022.8-00.5 46.	22. 22. 20. 20.	6D023.1-00.3 65. P -0.2 A06020.0-00.2 14.	. *	65023.3-00.3 46.5000 65023.3-00.3 46.5000 65024.5-00.2 3.7 408 60024.5-00.2 19.2700 P/E Ab6019.7-00.2 16.1414	DG019.6-00.2 13. P +0.14 CUL183-06 15.	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	65025.3-00.2 31.5000 60025.4-00.2 26.2000 56025.4-00.2 12.3 408 F -0.2 ADG026.6-00.1 11.1414	10. 5000 BK026.6-00.1 3.5 1410 E 0. A0G016.4-00.2 12. 1414	9 6, 4	. e. g	9. 408 10.6 408 23. 1414 23. 2695	19. GD024.7-00.1 28. P/E -0.08 BG1826-11 18.7 ADG020.7-00.1 17.	5000 6D020.7-00.1 19. 2700 P/E -0.5 A06026.1-00.0 6. 1414 5. 2695	8.9 2700	1. 1414 1. 2695 11.3 408 15. 1414	85.5	65023.6-00.0 14.5000 E -0.6 ADG021.9-00.0 10.1414 B. 2695	60021.9400.0 18. 2700 50024.4400.1 2.2 408 P -0.4 A06016.7400.1 3. 1414 2. 2695	GD024.8+00.1 13.
S(Jy) Type a Nai	25. 23. 60019.0-00.3 49. KLNS 35 230. 4.0 P ADG016.6-00.3 4.	2. 6.0016.6-00.3 8.4 0.08 E SG022.; 00.5 236.	AJG080 100. ADG022.8-00.3 66. GD027.8-00.8 69. GS022.8-00.5 66.	-0.1 ADG018.2-00.3 27. 26. AJG089 45. SG023.1-00.2 45. ADG02300.3 50.	7.78 P -0.2 A06020.1-00.3 65.	M41 M41 S6023.3-00.3 45. A06023.4-00.2 19.	60023,4-003,2 65,000 63023,3-003,3 46,500 63024,5-00,2 3,7 408 60024,5-00,2 19,270 12,25 P/F Ab6019,7-00,2 16,144	DG019.6-00.2 13. 23.97 P +0.14 CUL183-06 15.	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	65025.3-00.2 23. 5000 65025.4-00.2 2.6. 2700 50025.4-00.2 12.3 408 17.14 E -0.2 A06026.6-00.1 11, 1414	10. 5000 BKD26.6-00.1 3.5 1410 5. 2650 8.56 E 0. ADG015.4-00.2 12. 1414	9 6, 4	. e. g	E BG1834-07 9, 408 SG247-7-00.2 10.6 408 ADG024-7-00.1 23, 1414 ADG024-7-00.1 23, 1414	19.96 P/E -0.08 BG1826-11 18.7 ADG020.7-00.1 17.	17. 2695 16. 5000 16. 5000 10. 5 ADG026.1-00.0 6. 1414 5. 2695	8.9 2700	E ADGO22.3-00.1 1. 1414 E SG023.6-00.0 11.3 408 ADGO23.5-00.0 15, 1414	85.5	65023.6-00.0 14. 5000 13.82 E -0.6 A06021.9-00.0 10. 1414 8. 2895	CS29 P -0.4 AbG016.7400.1 2.2 408 2.29 P -0.4 AbG016.7400.1 3. 1414 2. 2695	42.37 E 0. 30.024,3000.1 15.2 A00024,8400.1 13. 60024.8400.1 19.
beam) S(Jy) Type α Na	25. 23. 60019.0-00.3 49. KLNS 35. 230. 1.49 4.0 P. ADG016.6-00.3 4.	2. 60016.6-00.3 8.4 .68 .08 E \$6022.7 00.5 236.	AJG080 100. ADG022.8-00.3 6.0.	1.1 31.4 E -0.1 ADGO18.2-00.3 27. 21. 1.7 E AJGO18 45. 56023.1-00.2 45. ADGO2300.3 59.	36. 1.03 7.78 P -0.2 A06020.0-00.2 14.	2.1 E W41 14. SG023.3-00.3 45. A05023.4-00.2 19.	0.93 E 0.0004.3-00.3 46. 5000 0.93 E 0.0004.5-00.2 19. 2700 0.82 12.25 P/E 0.0019.7-00.2 19. 2700	DG019.6-00.2 13. 97 1.84 23.97 P +0.14 CUL183-06 15.	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	62025.3-00.2 31.5000 63025.4-00.2 76. 2700 63025.4-00.2 12.3 408 642 17.14 E -0.2 A06026.6-00.1 11.1141	10. 5000 BK026.6-00.1 3.5 1410 5. 2650 78 .33 8.56 E 0. ADG016.4-00.2 12. 1414	6. 9. 6D016.3-00.2 14.	.19 E A06017.1-00.1 3.	.42 E BG1834-07 9. 408 1.2 E SG024.7-00.2 10.6 408 ADG024-7-00.1 23. 1414 23. 2695	GD024.7-00.1 28. 1.11 19.96 P/E -0.08 BG1826-11 18.7 AD6020.7-00.1 17.	17. 2895 16. 5000 19. 8.43 P/E -0.5 A08026.1-00.0 6. 1414 5. 2895	4, 5000 GD020.4-03.0 8.9 2700	.17 E A06022.3-00.1 1. 1414 1. 2695 0.91 E SG023.6-00.0 11.3 408 A06023.5-00.0 15, 1414	85.5	65023.6-00.0 14.5000 .34 13.82 E -0.6 ADG021.9-00.0 10.1414 8.2695	.54 E SG021.9400.1 2.2 408 .75 2.29 P -0.4 ADG016.7400.1 2.2695	1.30 12.37 E V. 38 024,800.1 15.2 A06024.8400.1 13. G0024.8400.1 19.
S(Jy) Type a Nai	25. CD019.0-00.3 23. LMS 35. 230. 8. 4.02 1.49 4.0 P A03016,6-00.3 4.	2. .68 .68 .08 E GD016.6-00.3 8.4 11.7 1.4 E SG022.: 00.5 236.	AJG080 100. AJG080 100. AJG080 100. AJG08018-00.3 51. GG022:8-00.5 46.	0 15.6 1.1 31.4 E -0.1 A06018.2-00.3 27. 2 14.3 1.7 E A3089 45. 2 14.3 1.7 E A3089 45. 2 A3089 45. 3 A3089 45.	90. 90. 100. 1.03 7.78 P -0.2 A06020.1-00.3 65. 100. 100. 1.03 7.78 P -0.2 A06020.0-00.2 11.	.0 1.70 2.1 E WOZU,00.1 14. WHI SERVICE SECTION 3 45. WOZU,00.1 14. WOZU,00.1 14.	1.06 0.93 E 0.00015.0002 3.0003 408 0.000 0.0003 1.	.33 23.97 1.84 23.97 P +0.14 CUL183-06 15	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	63025.3-00.2 31.5000 60055.4-00.2 76.2700 60055.4-00.2 12.3 408 7.9 4.40 .42 17.14 E -0.2 A06026.6-00.1 11.11414	10. 5000 BKD26.6-00.1 3.5 1410 5. 2650 6 2.78 .33 8.56 E 0. A0G016.4-00.2 12. 1414	6. 9. 60016.3-00.2 14.	.2 1.53 .19 E A0G017.1-00.1 3.	2 3.48 .42 E 861834-07 9. 408 2 9.85 1.2 E 861834-7-00. 10. 6. 408 A06024-7-00. 10. 23. 414 A06024-7-00. 23. 2895	19. 60024.7-00.1 28. 96 13.98 1.11 19.96 P/E -0.08 B61826-11 18.7 A05020.7-00.1 17.	17. 2695 16. 5000 1.39 6.21 ,93 8.43 P/E -0.5 ADGOS6.1-00.0 6. 1414 5. 2695	4, 5000 GD020.4-03.0 8.9 2700	1.42 .17 E A06022.3-00.1 1.1414 7.51 0.91 E SG023.6-00.0 11.3 408 A06022.5-00.0 15.1414	85.5	.8 3.95 .34 13.82 E -0.6 ADG21.9-00.0 10, 1414	67021-3600.0 18.2700 6.29 .75 2.29 P -0.4 M0016.7400.1 3. 1414 2.29 .75 2.29 P -0.4 CONTRACTOR 2. 2695	10.31 1.36 12.37 2 0. 30 05-1500.1 15.2 M00254.8400.1 13. GD024.8+00.1 19.
beam) S(Jy) Type α Na	25. 6D019,0-00.3 93. LKRS 35.0.2 7.30. 16 37.8 4.02 1.49 4.0 P ADG016,0-00.3 4.	2. 21 07.8 .68 .68 .08 E 60016.6-00.3 8.4 22 43.8 11.7 1.4 E 56022. 00.5 236.	AJG080 100. AJG080 100. AJG0822.8-00.3 16. 51. GD027.8-00.8 69. GS022.8-00.5 46.	18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 25. 23 04.2 14.3 1.7 E AJBORD 45. AGRICAL-0.0.3 50.	90. 100. 1.00 1.78 P -0.2 MG200,0-00.2 11. 100. 100. 1.78 P -0.2 MG200,0-00.2 11.	23 24.0 1.70 2.1 E MAZOU-DOU.1 14. HISTORIA SOURCES SO	24 31.8 7.66 0.93 E SSRA, 500.2 34.700 1935.7 8.71 .82 12.25 P/F M6919.700.2 13, 200	25 22.33 23.97 1.84 23.97 P +0.14 CUL183-06 15.	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	65025.3-00.2 31.5000 60025.4-00.2 26.7700 60025.4-00.2 12.3 408 26 26.9 4.40 .42 17.14 E -0.2 A06026.6-00.1 11.1414	10 5000 10 5000 10 10 10 10 10 10 10 10 10 10 10 10 10 1	6. 6. 6D016.3-00.2 14.	17 10.2 1.53 .19 E A06017.1-00.1 3.	24 40.2 9.65 1.2 E B61834-70 9, 408 24 40.2 9.65 1.2 E S624.7-00.2 10.6 408 A00224-7-00.1 23, 1414 A00224-7-00.1 23, 1414	19. G0024.7-00.1 28. 20 43.96 13.98 1.11 19.96 P/E -0.08 8G18G5-11 18.7 ADG020.7-00.1 17.	17. 2895 16. 5000 26. 06. 39 6. 21 , 93 8. 43 P/E -0. 5. A0G208. 1-00. 0 6. 1414 5. 2695	GD020.4-03.0 8.9 2700	22 16.2 1.42 .17 E ADGOZZ.3-00.1 1. 1414 23 31.8 7.51 0.91 E SGGZ3.4-00.0 11.3 408 ADGGZ3.6-00.0 15. 1414	85.5	21 52.8 3.95 .34 13.82 E -0.6 AGG21.9-00.0 14.5000	24.0. 4.40 .54 E 60021.34.000.1 Bis. 2700 16.42.5 2.29 .75 2.29 P -0.4 M0016.7400.1 3. 1414 2.2695	24 46.0 10.31 1.30 12.37 E 0. A00204.04.00.1 112.0 112
ა _p (პ <i>y</i> beam) S (პу) Туре ი Na	25. G0019.000.3 49. KMS 35 230. Z2.2 16 37.8 4.02 1.49 4.0 P A00016.6-00.3 4.	2. 20.0 21 07.8 .68 .68 .08 E GD016.6-00.3 8.4 20.0 22 43.8 11.7 1.4 E SG022.; 00.5 236.	AJG000 100. AUG000 2.00.3 100. 100. AUG0007.8-00.3 100. 60007.8-00.8 69.	17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 16.2 23 04.2 14.3 1.7 E AJG989 45. AGG210.0.3 90.	36. 36. 37. 38. 38. 38. 38. 38. 38. 38. 38. 38. 38	12.0 23 24.0 1.70 2.1 E WANGLICHOLL 14. 12.0 23 24.0 1.70 2.1 E WANGLICHOLL 14. 12.0 25.2 24.0 1.70 2.1 de. 12.0 23 24.0 1.70 2.1 de.	12.0 24 31.8 7.66 0.93 E SSR24,5-00.2 35.7 000 11.9 19 35.7 8.71 .82 12.25 P/F MG919.7-00.2 13, 200 11.9 19 35.7 8.71 .82 12.25 P/F MG919.7-00.2 16, 200	13.7 25 22.33 23.97 1.84 23.97 P +0.14 CUL183-06 15.	7.0 100 3.8 408 25.7 750 29.7 1400 .2 24. 1414	2695	62025.3-00.2 23.5000 62025.4-00.2 26.2700 5025.4-00.2 13.3 408 11.4 26 26.9 4.40 .42 17.14 E -0.2 MOSDCs.6-00.1 11.1414	10, 5000 80026, 6-00.1 3.5 1410 5, 2650 11.3 16 23, 6 2, 78 , 33 8, 56 E 0, A005016, 4-00, 2 12, 1414	6. 6. 6D016.3-00.2 14.	10.2 17 10.2 1.53 .19 E ADG017.1-00.1 3.	07.8 24 40.2 9.65 1.2 E 861384.7-00.7 9. 408 07.8 24 40.2 9.65 1.2 E 861384.7-00.7 10.6 408 N00264.7-00.1 23. 1314	19. 60024.7-00.1 28. 06.50 20 43.96 13.98 1.11 19.96 P/E -0.08 651826-11 18. A06020.7-00.1 17.	17. 2895 16. 5000 02.17 26 06.39 6.21 ,93 8.43 P/F -0.5 ADGD26.1-00.0 6, 1414 5. 2595	4, 5000 GD220-4-03.0 8.9 2700	00.0 22 16.2 1.42 .17 E ADGOZZ.3-00.1 1.1414 00.0 23 31.8 7.51 0.91 E SGOZ3.6-00.0 11.3 408 ADGOZ3.5-00.0 11.3 408	85.5	01.2 21 52.8 3.95 .34 13.82 E -0.6 A06021.9-00.0 10 1414	24.0 4.40 .54 E GROZI-18-00.0 18.2700 42.5 2.29 .75 2.29 P -0.4 MGG16.7400.1 3. 1414 2.29 2.29 .75 2.29 P -0.4 MGG16.7400.1 3. 1414 2. 2695	05.9 64 46.0 10.31 1.36 16.37 E 0. MODOR 4600.1 112. MODOR 4600.1 113. 13.0 10.0 10.0 10.0 10.0 10.0
No. b 1 S _p (Jy beam) S(Jy) Type α Nam	25. 00019-0-01.3 43. 64-00 22.2 16 37.8 4.02 1.49 4.0 P MODING-00.3 43.	2. 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 56 -00 20.0 22 43.8 11.7 1.4 E 56022 00.5 236.	AJ0000 100. A00000 100. A00000 100. 51. 60007 8-60. 60007 8-60. 60007 8-60.	57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45. A46262.1-0.3 45.	96. 26. 0022.1-00.1 6.5 7.78 1.03 7.78 P -0.2 MOSEO.0-00.2 II.	0 23 24.0 1.70 2.1 E WARGOL-DOLL 14. KARDS 3-00.1 345. KARDS 3-00.1 345. KARDS 3-00.1 345. KARDS 3-00.1 14.	61-00 12.0 24 31.8 7.66 0.93 E SGRALE-00.3 46.5 9000 62 -00 11.9 19 35.7 8.71 8.12.25 P/F ARGRES-00.2 15.300	25 22.33 23.97 1.84 23.97 P +0.14 CUL183-06 15.	3C98 17.0 159 C0262-0.1 3.6 408 RAG057 5:7 750 RAG055 4-00:2 24.1 1400	26. 2695	64 -00 11.4 26 26.9 4.40 .42 17.14 E -0.2 MOGNS: 6-00.1 11.4144	10: 5000 10: 500 65 -00 11:3 16 23.6 2.78 .33 8.56 F 0. AGGDIS.4-00.2 12: 1414	6. 9. 6D016.3-00.2 14.	66 -00 10.2 17 10.2 1.53 .19 E ABG017.1-00.1 3.	67 -00 07.8 24 16.2 3.48 .42 E 50134700.2 0.5 2.0 0.0 07.8 24 40.2 9.85 1.2 E 50134700.2 10.6 408 NOGR24.7-00.7 10.5 408	19. 69 -00 06.50 20 43.96 13.98 1.11 19.96 P/F -0.08 BGB82-11 18.73. ADG020.7-00.1 17.	17. 2895 16. 5000 70 -00 02.17 26 06.39 6.21 .93 8.43 P/E -0.5 A0G026.1-00:0 6.144 5. 2895	4, 5000 60020.4-03.0 8.9 2700	71 -00 00.0 22 16.2 1.42 .17 E ADGZZZ.3-00.1 1.1414 72 -00 00.0 23 31.8 7.51 0.91 E SGGZ3.6-00.0 11.3 408 AGGZZZ.5-00 0.11.3 408	85.5	21 52.8 3.95 .34 13.82 E -0.6 AGG21.9-00.0 14.5000	04.1 24.24.0 4.40 .54 E 58024.4400.1 8.2700 05.3 16.42.5 2.29 .75 2.29 P -0.4 A0016.7400.1 3.1414 26.3 26.3 26.3 27.3 27.3 27.3 27.3 27.3 27.3 27.3 27	00 05:5
eq: No. b 1 S _p (Jy beam) S(Jy) Type o Nam	1415 60019-0-01.3 49 64-00 22.2 16 37.8 4.02 1.49 4.0 P MADDIG-60.3 49 64-00 22.2 16 37.8 4.02 1.49 4.0 P MADDIG-60.3 4.0	2. -00 20.0 21 07.8 .68 .68 .08 E GD016.6-00.3 8.4 -00 20.0 22 43.8 11.7 1.4 E SG022.: 00.5 236.	AJ000 100, A0000 100, 1415 600, 141, A00072, 8-00, 8-46, 60072, 8-00, 8-46,	1415 57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 1415 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45. 1415 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45.	1414 - 36.2 1.7.7 1.03 7.78 P -0.2 Mosto.0-00.2 11.04 11.03 7.78 P -0.2 Mosto.0-00.2 11.1 11.1 11.1 11.1 11.1 11.1 11.1	-00 12.0 23 24.0 1.70 2.1 E WACKULDOLL 14. MORENICO 14. MORENICO 14. MORENICO 15.	2700 GG25.3-00.3 (6. 5000 GG25.3-00.3 46. 5000 GG25	-00 11.37 25 22.33 23.97 1.84 23.97 P +0.14 CUL183-06 15.	3C98 17.0 159 C0262-0.1 3.6 408 RAG057 5:7 750 RAG055 4-00:2 24.1 1400	2695	408 64-00 11.4 26 26.9 4.40 .42 17.14 E -0.2 MO925x,6-00.1 11. 1414	00000000000000000000000000000000000000	5000 6. 9. GD016.3-00.2 14.	80 160 66 -00 10.2 17 10.2 1.53 .19 E ADG017.1-00.1 3. 10.0 66 -00 10.2 17 10.2 1.53 .19 E ADG017.1-00.1 3.	7844 67 -00 07.8 24 16.2 3.46 .42 E 05137.7-012.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	4200 4200 4314 414 69 -00 06:50 20 43.96 13.98 1.11 13.96 P/F -0.08 6885F-11 18.7 5895	1414 2855 2868 70 -00 02.17 26 06.39 6.21 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .2895	1414 4 5000 2865 5000 2000	2700 71 -00 00.0 22 16.2 1.42 .17 E A00022.3-00.1 1.1414 12.295 2700 71 -00 00.0 23 31.8 7.51 0.91 E SG023.4-00.0 11.3 408 2701 72 -00 00.0 23 31.8 7.51 0.91 E SG023.5-00.0 11.3 408	2700 8	2895 73 +00 01.2 21 52.8 3.95 .34 13.82 E -0.6 A60213-00.0 14, 5000 27000 20 20 20 20 20 20 20 20 20 20 20 20	2 408 74 00 04.1 24 24.0 4.40 .54 E 50074,4400.1 8.27 408 [1414 75 00 05.3 16 42.5 2.29 .75 2.29 P -0.4 Mog016.7400.1 3.144 2.59 2.59 2.59 2.59 2.59 2.59 2.59 2.59	00 05:5
lentification Flux Freq (s.y) (Hz) No. b 1 S _p (Jy beam) S(Jy) Type a Man	25. 00019-0-01.3 43. 64-00 22.2 16 37.8 4.02 1.49 4.0 P MODING-00.3 43.	7. 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 56 -00 20.0 22 43.8 11.7 1.4 E 85022 00.5 236.	AJ0000 100. A00000 100. A00000 100. 51. 60007 8-60. 60007 8-60. 60007 8-60.	57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45. A46262.1-0.3 45.	1.0 1414 - 35. 36. 1.03 1.78 1.03 1.78 1.03 1.78 9 -0.2 Mostro,0-0.0.2 11.15 408	-00 12.0 23 24.0 1.70 2.1 E WACKULDOLL 14. MORENICO 14. MORENICO 14. MORENICO 15.	4 3.3 2700 61-00 12.0 24 31.8 7.66 0.93 E SSOR4,5-00.2 3.7 408 65 5000 662 5.00 61.9 19 35.7 8.71 .82 12.25 P/F MORRIS-00.2 15, 2100 62 -00 11.9 19 35.7 8.71 .82 12.25 P/F MORRIS-00.2 16, 200	13-5 163 -00 11.37 25 22.33 23.97 1.84 23.97 P +0.14 00L189-06 15.	1, 80 30.08 17.0 159 1, 16 16 00.08 17.0 159 1, 7 408 00.08 17.0 159 1, 18 14 Ansors 4-00.2 24, 1940 1, 18 14 Ansors 4-00.2 24, 1940	2.4 408 1.73 408 26, 2895	1.48 408 25.000 65055.9-0.2 3.3 5000 2.6 408 2.6 408 2.017.1 41.4 40.3 26.2 10.14 26.26.9 4.40 .42 17.14 E -0.2 MODZS-6-00.1 11. 1414 3.7 5000 2.017.1 41.4 41.4 41.4 41.4 41.4 41.4 41.4	889 5000 80026-6-00.1 35.1410 5.269 8.38 8.56 6-00.1 3.5.1410 5.269 4. 2894 65-00.11.3 16.23,6 2.78 .33 8.56 F 0, MOSD16,4-00.2 12.1414	4. 5000 6. 9. GD016.3-00.2 14.	8. 80 66 -00 10.2 17 10.2 1.53 .19 E A06017.1-00.1 3. 4.98 4.09 4.09 4.00 4.00 4.00 4.00 4.00 4.00	7844 67 -00 07.8 24 16.2 3.46 .42 E 05137.7-012.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	4200 4200 4314 414 69 -00 06:50 20 43.96 13.98 1.11 13.96 P/F -0.08 6885F-11 18.7 5895	1414 2855 2868 70 -00 02.17 26 06.39 6.21 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .2895	1414 4 5000 2865 5000 2000	2700 71 -00 00.0 22 16.2 1.42 .17 E A00022.3-00.1 1.1414 12.295 2700 71 -00 00.0 23 31.8 7.51 0.91 E SG023.4-00.0 11.3 408 2701 72 -00 00.0 23 31.8 7.51 0.91 E SG023.5-00.0 11.3 408	2700 8	18, 2695 18, 5000 18, 5000	8.2 408 74 00 04.1 24 24.0 4.40 .54 E 50024.4400.1 8.2 700 89. 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A0016.740.1 3. 1414 2.5 0.00 05.3 16 42.5 2.59 75 2.29 P -0.4 A00016.740.1 3. 1414 2.5 0.00 05.3 16 42.5 2.59 75 2.59 P -0.4 A00016.740.1 3. 1414 2. 2095	00 05:5
No. b 1 S _p (Jy beam) S(Jy) Type α Nam	0.76 1415 0.76 1415 0.70 1.49 4.0 P NOSDIS 50 230 54 -00 22.2 16 37.8 4.02 1.49 4.0 P NOSDIS 50 230	2. 6.46 1415 55 -00 20.0 21 07.8 .68 .68 .08 E GD016.6-00.3 8.4 56 -00 20.0 22 43.8 11.7 1.4 E S5022 10.5 236.	AJG90 100, AJG90 100, 51, 0.68 1415 GGC2, 8-00, 8-65, GGC2, 8-00, 8-65,	0.6 1415 57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 27. 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A69039 75. 46023.100.3 95.	36. 36. 36. 37.78 1.03 7.78 P -0.2 MOSIZI-00.3 65. 020-02.9. 1.15 408 59 -00 12.6 19 56.5 7.78 1.03 7.78 P -0.2 MOSIZIO-00.2 11.	-00 12.0 23 24.0 1.70 2.1 E WACKULDOLL 14. MORENICO 14. MORENICO 14. MORENICO 15.	4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.93 E SSDR4,5-00.2 3.7 408 61 -00 12.0 24 31.8 7.66 0.93 F SDR4,5-00.2 3.7 408 62 -00 11.9 19 35.7 8.71 .82 12.25 P/F MORDIS00.2 16, 1209	13-5 163 -00 11.37 25 22.33 23.97 1.84 23.97 P +0.14 00L189-06 15.	1, 80 30.08 17.0 159 1, 16 16 00.08 17.0 159 1, 7 408 00.08 17.0 159 1, 18 14 Ansors 4-00.2 24, 1940 1, 18 14 Ansors 4-00.2 24, 1940	2.4 408 1.73 408 26, 2895	1.48 408 25.000 65055.9-0.2 3.3 5000 2.6 408 2.6 408 2.017.1 41.4 40.3 26.2 10.14 26.26.9 4.40 .42 17.14 E -0.2 MODZS-6-00.1 11. 1414 3.7 5000 2.017.1 41.4 41.4 41.4 41.4 41.4 41.4 41.4	889 5000 80026-6-00.1 35.1410 5.269 8.38 8.56 6-00.1 3.5.1410 5.269 4. 2894 65-00.11.3 16.23,6 2.78 .33 8.56 F 0, MOSD16,4-00.2 12.1414	4. 5000 6. 9. GD016.3-00.2 14.	8. 80 66 -00 10.2 17 10.2 1.53 .19 E A06017.1-00.1 3. 4.98 4.09 4.09 4.00 4.00 4.00 4.00 4.00 4.00	7844 67 -00 07.8 24 16.2 3.46 .42 E 05137.7-012.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	4200 4200 4314 414 69 -00 06:50 20 43.96 13.98 1.11 13.96 P/F -0.08 6885F-11 18.7 5895	1414 2855 2868 70 -00 02.17 26 06.39 6.21 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .93 8.43 P/F -0.5 AGGEG-1-00.0 6.22 .2895	1414 4 5000 2865 5000 2000	2700 71 -00 00.0 22 16.2 1.42 .17 E A00022.3-00.1 1.1414 12.295 2700 71 -00 00.0 23 31.8 7.51 0.91 E SG023.4-00.0 11.3 408 2701 72 -00 00.0 23 31.8 7.51 0.91 E SG023.5-00.0 11.3 408	2700 8	18, 2695 18, 5000 18, 5000	8.2 408 74 00 04.1 24 24.0 4.40 .54 E 50024.4400.1 8.2 700 89. 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A0016.740.1 3. 1414 2.5 0.00 05.3 16 42.5 2.59 75 2.29 P -0.4 A00016.740.1 3. 1414 2.5 0.00 05.3 16 42.5 2.59 75 2.59 P -0.4 A00016.740.1 3. 1414 2. 2095	00 05:5
lentification Flux Freq (s.y) (Hz) No. b 1 S _p (Jy beam) S(Jy) Type a Man	1415 60019-0-01.3 49 64-00 22.2 16 37.8 4.02 1.49 4.0 P MADDIG-60.3 49 64-00 22.2 16 37.8 4.02 1.49 4.0 P MADDIG-60.3 4.0	7. 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 56 -00 20.0 22 43.8 11.7 1.4 E 85022 00.5 236.	AJ000 100, A0000 100, 1415 600, 141, A00072, 8-00, 8-46, 60072, 8-00, 8-46,	1415 57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 1415 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45. 1415 58 -00 16.2 23 04.2 14.3 1.7 E A46989 45.	36. 36. 37. 38. 39. 1.15. 408 59 -00 12.6 19 56.5 7.78 1.03 7.78 P -0.2 MOSEO.0-00.2 16. 9. 1.15 408	-00 12.0 23 24.0 1.70 2.1 E WACKULDOLL 14. MORENICO 14. MORENICO 14. MORENICO 15.	4 3.3 2700 61-00 12.0 24 31.8 7.66 0.93 E SSOR4,5-00.2 3.7 408 65 5000 662 5.00 61.9 19 35.7 8.71 .82 12.25 P/F MORRIS-00.2 15, 2100 62 -00 11.9 19 35.7 8.71 .82 12.25 P/F MORRIS-00.2 16, 200	06019.6-00.2 13.7 25 22.33 23.97 1.84 23.97 P +0.14 0ULI89-06 15.	3C98 17.0 159 C0262-0.1 3.6 408 RAG057 5:7 750 RAG055 4-00:2 24.1 1400	8G1831-12 2.4 408 26. 2695 CC021-01.6 1.73 408 26. 2695	408 64-00 11.4 26 26.9 4.40 .42 17.14 E -0.2 MO925x,6-00.1 11. 1414	CODE-01.2 28 5000 80026.6-00.1 35.1410 80016.4-00.2 5.1414 4. 2894 65-00 11.3 16 23.6 2.78 .33 8.56 F 0. MODIS-6-40.0 15.1414	4. 5000 6. 9. GD016.3-00.2 14.	80 160 66 -00 10.2 17 10.2 1.53 .19 E ADG017.1-00.1 3. 10.0 66 -00 10.2 17 10.2 1.53 .19 E ADG017.1-00.1 3.	MONOZI.5-00.9 6. 1944 6.2 9.48 4.2 E MONOZI.5-00.9 9.408 60021.5-00.9 6.7 200 07.8 24 40.2 9.56 1.2 E B61324,7-00.2 0.5 408 60021.5-00.9 6.7 200 8 -00 07.8 24 40.2 9.56 1.2 E MONOZI.5-00.9 9.408 60021.5-00.9 6.7 200 9.3 144 A0020.3-00.8 3. 1414 A00202.2 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	0.000, 0.	Modens-Book 7, 1114 Modens-Book 7, 1114 Modens-Book 7, 1114 Modens-Book 17, 1114 Modens-Book 1117 M	1414 4 5000 2865 5000 2000	G0021.8-00.6 39. 2700 71 -00 00.0 22 16.2 1.42 .17 E M0022.3-300.1 1.1414 2 M00216.4-00.5 2 1444 72 -00 00.0 23 31.8 7.51 0.91 E S0023.6-00.0 11.3 408 1.000.0 2. 2464 M0020.3 4.0 00.0 23 31.8 7.51 0.91 E M0020.3 5-00.0 11.3 408	2700 8	18, 2695 18, 5000 18, 5000	2 408 74 00 04.1 24 24.0 4.40 .54 E 50074,4400.1 8.27 408 [1414 75 00 05.3 16 42.5 2.29 .75 2.29 P -0.4 Mog016.7400.1 3.144 2.59 2.59 2.59 2.59 2.59 2.59 2.59 2.59	00 05:5
Identification $\label{eq:continuity} Iype \ \alpha \text{Name} (\lambda y) \ (HRZ) \ \text{No.} b 1 S_p(\lambda y \ \text{Deam}) \ S(\lambda y) \ Type \ \alpha \qquad \text{Nam}$	25. P 04-094 0.76 1415 P 00019.0-00.3 49. E 00019.0-00.3 49. E 54 -00 22.2 16 37.8 4.02 1.49 4.0 P MODIG.6-00.3 4.	2. P 046 1415 P 55 -00 20,0 21 07,8 .68 .68 .08 E 60016.6-00,3 8.4 P 56 -00 20,0 22 43,8 11,7 1.4 E 50025.: 00.5 2265.	Magaba 100,	p 00-080 0.6 1415 57 -00 17-4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27, 27	96. P A09020.4-03.0 1.0 1414 59.00 12.6 19 56.5 7.78 1.03 7.78 P -0.2 A09020.1-00.2 65. 115 408 59.00 12.6 19 56.5 7.78 1.03 7.78 P -0.2 A09020.1-00.2 16. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	E 60 -00 12.0 23 24.0 1.70 2.1 E WARDAL-POOL 1 14. E 803.3 -0.0 13.0 2.1 E \$803.3 -0.0 3 45. E 803.3 -0.0 3 45.	E +0.3 GD017.4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.93 E SSR214-500.3 3.7 408 E +0.3 GD017.4-02.4 3.5 2700 GD027.3-00.3 4.6 5000 E C SSR214-500.3 3.7 408 E C SSR214-500.2 3.7 408 E C SSR214-50	p 06019 5-00 11.37 25 22.33 23.97 1.84 23.97 P +0.14 CULISS-06 15.	P -0.55 CUL1840-07 7, 80 5,039 861840-08 3.7 408 6,039 861840-08 3.7 408 6,039 861840-09 3.7 408 6,039 860024-01.7 2.78 408 7,039 860024-01.7 2.78 408 860024-01.7 1.8 448 860024.3-01.7 1.8 448 860024.3-01.7 1.8 448	P 861831-12 2.4 408 26, 2695 P -1.2 C0021-01.6 1.73 408	E -0.7 CC025-01.1 1.44 408 605125.3-00.2 5.2700 6051825-13 2.6 408 60514.0 4.2 17.14 E -0.2 MOSES, 5-00.2 13.3 408 6051825-13 2.6 408 6051825-13 408 6051825	E -0.1 CODE-01.2 1.18 400 80026 6-00.1 3.5 1410 800316 8-00.1 3.5 1410 800316 8-00.1 3.5 289 8-00 11.3 16 23.6 2.78 .33 8.56 E 0. MODDIS-4-00.2 12.1414	4. 5000 6. E GD016.3-00.2 14.	P 0.0 CUL1830-10.6 8. 80 66 -00 10.2 17 10.2 1.53 .19 E A06017.1-00.1 3. CCR21.1-00.9 4.59 4.68 4.59 4.59 4.59 4.59 4.59 4.59 4.59 4.59	(10021.5-00. 9. 71. 2895 67 -00 07.8 24 16.2 3.48 .42 E 00021.5-00.2 0.48 .42 E 00021.5-00.9 9. 48 .42 E 00021.5-00.9 6.7 200.0 68 -00 07.8 24 40.2 9.68 1.2 E 00021.5-00.9 0.7 20024.7-00.2 0.6 408 E 0.0 07.8 24 40.2 9.68 1.2 E 00021.5-00.9 0.7 20024.7-00.1 23. 1414	E00002.2-0-9 3.7 2700	E -0.2 M00319-8-007.4, 11414 E -0.6 S0071-007.5, 409 E -0.66 S0071-007.5, 409 F -0.69 S0071-007.147, 409 F -0.90 S0071-007.147, 4	1414 4 5000 2865 5000 2000	G0021.6-00.6 38, 2700 71 -00 00.0 22 16.2 1.42 .17 E A00222.3-00.1 1.1414 P -0.2 A00016.4-00.5.2, 144 72 -00 00.0 23 31.8 7.51 0.91 E S00734.00.0 11.3 408 A00215.4-00.5 2, A004	E 60016.4-0.5 8.1 2700 8.1 2700 18.1 2700 18.1 2700 19.1 20.0 20.1 20.1 20.1 20.1 20.1 20.1 20	18, 2695 14, 5000 14, 5000 17, 5000 18, 500, 4 32, 2700 18, 500, 4 32, 2700 18, 500, 4 32, 2700 18, 500, 4 32, 2700	F N 39 R 1822-12, 8.2 408 74 00 04.1 24 24.0 4.40 .54 R 50044-400.1 2.2 408 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.3 20, 1414 75 2.29 75 2.29 P -0.4 A00016.7+00.1 3.144 A00019.1-00.1-00.1-00.1-00.1-00.1-00.1-00	00 05:5
Identification $S(y) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	26 P 00-094 0.76 1415 25. 28 P 00-094 0.76 1	2. .30 P 0.46 1415 .30 P 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 .77 E 55 -00 20.0 22 43.811.7 1.4 E 50022. 00.5 236.	. 29 E AJG080 100 29 P	. 94 p 00-060 0.6 1415 57-00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 21 p 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 23 p 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A55089 45. 24 p 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A55089 45. 25 p 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A5508.3 1.00 2 45.	36. P A06920.4-03.0 1.0 1414 - 35.0 1.0 1414 - 60220.1-03.3 65.5 7.78 1.03 7.78 P -0.2 A06320.0-00.2 11. 1.0 17. 17. 17. 17. 17. 17. 17. 17. 17. 17.	E 60 -00 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 1 14. E 60 -00 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 1 14. E 60 -00 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 1 14. E 60 -00 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 1 14.	3.49 E 60017.4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.53 E 5000 60017.4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.53 E 5000 60017.4-02 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0		1.43 P -0.55 CIL1840-07 7. 80 30285 17.0 159 81840-08 3.7 408 CD26-01.7 2.74 408 MAGG72 25.7 750 CD26-01.7 2.74 408 MAGG72 25.7 750 MAGG74.9-01.7 1. 1414 MAGG75.4 40.0 25.1 1414	.37 P BG1831-12 2.4 408 26. 2695	.45 E 5000 SSDES-9-01. 1.48 408 SSDES-9-02. 23.5000 SSDES-9-02. 23.5000 SSDES-9-02. 26.2700 SSDES-9-02. 26.2700 SSDES-9-02. 26.2700 SSDES-9-02. 26.2700 SSDES-9-02. 26.2700 SSDES-9-02. 27.2700 SSDES-9-02. 27	5.03 E -0.1 CODIS-01.2 28. 5500 80026.6-00.1 3.5 1410 80026.6-00.1 3.5 1410 80026.6-00.1 5. 2850 80026.6-00.1 3.5 1410 80026.6-00.1	6.14 E 4. 5000 6.14 E 6.016.3-00.2 14.	8.14 P 0.0 CULISSO-10.6 8. 80 66-00 10.2 17 10.2 1.53 .19 E ADSD17.1-00.1 3. CCC21.20.9 4.98 409 6.00 10.2 17 10.2 1.53 .19 E ADSD17.1-00.1 3. CCC21.00.9 4.98 409	7. 265 67 -00 07.8 24 16.2 3.48 .42 E SOUTH-COLLOW COLLOWS COLLOWS COLLOWS COLLOWS COLLOW COL	E 60024.7-00.1 23. 2700 6.05.50 20 43.96 13.19 13.96 P/F -0.06 80024.7-00.1 18.7 A60024.7-00.6 6. 144 69 -00 06.50 20 43.96 13.11 13.96 P/F -0.08 86186-5.11 18.7 A60020.7-00.1 18.7 A60020.7-00.1 18.7	4.82 E -0.2 Mo0194-0-0474, 1414 - 17.8255 51.91 E -0.66 S00018-0-06.73, 408 70 -00 02.17 26 06.39 6.21 .93 8.43 P/E -0.5 MO0265-1-00.0 6.11 1.01 1.01 1.01 1.01 1.01 1.01	1414 4 5000 2865 5000 2000	2.48 P -0.2 A69016.4-00.5 2. 144 72 -00 00.0 23 31.8 7.51 0.91 E 560223.3-00.1 1.144 R05223.5-00.1 1.3 408	63.0 E 40016.4-00.5 B.1 2700 63.0 E A003018.5-00.4 18, 1414 G0023.5-00.0 20.	18, 2695 73 +00 Q1.2 21 52.8 3.95 .34 13.82 E -0.5 Aborel 5-00.0 144, 5000 G0018.9-00,4 32, 2700 6	46.9 E 818224-12. 8.2 408 74 00 04.1 24 24.0 4.40 .54 E 5024.440.1 2.1 408 MS1824-12. 8.2 408 74 00 04.1 24 24.0 .54 2.29 .75 2.29 7.5 2.29 P -0.4 M60316.7-00.1 3.1414 A60319.1-00.3 29. 1414 75 00 05.3 16 42.5 2.29 .75 2.29 7.29 P -0.4 M60316.7-00.1 3.144	00 05:5
Identification Flux Freq No. b 1 S _p (Jy beam) S(Jy) Type a Name (Jy) (HM2) No. b 1 S _p (Jy beam) S(Jy) Type a Nam	26 P 00-094 0.76 1415 25. 28 P 00-094 0.76 1	2. .30 P 0.46 1415 .30 P 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 .77 E 55 -00 20.0 22 43.811.7 1.4 E 50022. 00.5 236.	0.04 .29 E AJS080 100. 0.04 .29 P 0.027.8-00.3 60.00 1415 0.68 1415 0.69 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	94 P 00-080 0.6 1415 57-00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 21 P 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 34 P 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 35 E A550.3 E	36. 70 .68 P M08020.4-03.0 1.0 1414 CG020.2 1.0 1414 CG020.1 1414 CG02	E 60 -00 12.0 23 24.0 1.70 2.1 E WARDAL-POOL 1 14. E 803.3 -0.0 13.0 2.1 E \$803.3 -0.0 3 45. E 803.3 -0.0 3 45.	06 3.49 E 40.3 60017.4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.53 E 5003.5-00.3 46.5 5000 70.5 1.2 E 5003.5-00.3 46.5 1.2	.09 .52 P D6019,6-00.2 13. .04 .26 P 63 -00 11.37 25 22.33 23.97 1.84 23.97 P +0.14 01183-06 15.	P -0.55 CUL1840-07 7, 80 5,039 861840-08 3.7 408 6,039 861840-08 3.7 408 6,039 861840-09 3.7 408 6,039 860024-01.7 2.78 408 7,039 860024-01.7 2.78 408 860024-01.7 1.8 448 860024.3-01.7 1.8 448 860024.3-01.7 1.8 448	.37 P BG1831-12 2.4 408 26. 2695	.06 .45 E 62025.9-01. 1.48 408 64-00 11.4 26 26.9 4.40 .42 17.14 E -0.2 NOSDES-6-00.1 11.4144	25 5.03 E -0.1 CCD16-01.2 1.18 408	.10 6.14 E 4. 5000 6. 0016.3-00.2 14.	. 33 8.14 P 0.0 CULIS30-10.6 8. 80 6 -00 10.2 17 10.2 1.53 .19 E ADSD17.1-00.1 3. CCD12.10.9 4.98 409 6.00 10.2 17 10.2 1.53 .19 E ADSD17.1-00.1 3. CCD12.10.9 4.98 409 6.00 10.2 17 10.2 1.53 .19	. 144 6 57 -00 07.8 24 16.2 3.48 .42 E	93 (60024.7-00.1 78) (60024.7-00.1 78) (60024.7-00.6 6) (71, 700.6 6) (7	.22 4.82 E -0.2 M0019.8-00.74, 1414	1414 4 5000 2865 5000 2000	48 .30 2.48 P -0.2 M60016.4-00.5 2, 144 77 E M00223.5-00.1 1.1414 48 .30 2.48 P -0.2 M60016.4-00.5 2, 144 72 -00 00.0 23 31.8 7.51 0.91 E S00723.5-00.0 11.3 408 5.00 2.48 P -0.2 M60016.4-00.5 2, 3444 72 -00 00.0 23 31.8 7.51 0.91 E M00223.5-00.0 11.3 408	24 1.6 63.0 E 80016.4-00.5 8.1 2700 8.1 2700 8.2 41.6 63.0 E 80023.5-00.0 20.2	18, 2695 14, 5000 14, 5000 18, 9-03, 4 32, 200 18, 500 18, 500	91.1.2 46.9 E 8/39 G05.21 40.0 04.1 24/24, 0.4.40 .54 E 50024.4401. 3.2 408 M00019.1-00.3.29, 1414 75 00 05.3 16 42.5 2.29 .75 2.29 P -0.4 M00019.7-400.1 3.144 M00019.7-400.1 3.	00 05:5
Identification $S(y) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	22 386 12 38 10 00-094 0.76 1415 25 10 37.8 4.02 1.49 4.0 P MADDIG-6-03.3 43 10 12 16 37.8 4.02 1.49 4.0 P MADDIG-6-03.3 43 10 12 12 12 12 12 12 12 12 12 12 12 12 12	2. 6. 130 p 0.179 0.46 1415 6. 53 0.13 30 p 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 5.53 7.1 p 56 -00 20.0 22 43.8 11.7 1.4 E 55022. 10.5 236.	AJGN0 100 100 AJGN0 100 AJ	0 .94 .09 .94 p 00-080 0.6 1415 57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 77 .21 52 106 .21 p 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 05. 05. 04 9 04-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 05. 05. 05. 06 06. 05. 06 06. 05. 06. 06. 06. 06. 06. 06. 06. 06. 06. 06	56 .68 .07 .68 p A09020.4-03.0 1.0 1414	14. 156 100 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 11.0 1.10 2.1 E WATCH-DOLL 11.0 2.1	5 173 06 3-19 E 40.3 G0017.4-02.4 3.3 2700 G1 -00 12.0 24 31.8 7.66 0.53 E 5003 G003.3-00.3 46.5 5000 G1 -0.5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 - 52 - 09 - 52 P D6019,6-00.2 13. 8 - 26 - 04 - 26 P 63 - 00 11.37 25 22.33 23.97 1.84 23.97 P + 0.14 G1183-06 15. 15.	12 1.42 .08 1.43 P -0.55 0U1940-07 7. 80 3.258 (7.7) 150 150 150 150 150 150 150 150 150 150	.0 .37 .10 .37 P 861831-12 2.4 40835 P -1.2 C0021-01.6 1.73 40835 .07 .35 P -1.2 C0021-01.6 1.73 408	2 .45 .06 .45 E 6.07 .26 P -0.7 CC025-01.1 1.48 408 60.0 11.4 26 26.9 4.40 .42 77.14 E -0.2 A0256.5-00.1 11.4144	8 2.93 .25 5.03 E -0.1 CODIS-01.2 1.18 400 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3.5 1410 5.00 80006.6-00.1 3	4. 5000 4. 5000 5.14 E 60016.3-00.2 14.	.4 8.14 .33 8.14 P 0.0 CULISSO-10.6 8. 80 66 -60 10.2 17 10.2 1.53 .19 E ADSDIT-1-00.1 3. CCCT_1.00.1 3. P. 108 4.08 4.08 4.08 4.08 4.08 4.08 4.08 4.	.0 1.66 .17 2.99 E -0.1 Mogrop. 3-00.8 3 144 6 14 16.2 3.48 .42 E 0.007.14 0.2 10.6 408 1.0 0.007.8 24 16.2 9.65 1.2 E 0.007.8 24 40.2 9.65 1.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9	2.55 .31 E 60002.2-0.9 3.7 2700 60.50 20 43.96 13.98 1.11 19.96 P/E 0.08 80024.7-00.1 18.7 A00098	2.28 .22 4.82 E -0.2 M00193-40.074, 1414 27.58 .19 E -0.6 80021-6-00.074, 1414 27.59 .19 E -0.6 80021-6-00.075, 488 27.69 1.19 51.91 E -0.66 80021-6-00.074, 488 27.69 .19 51.91 E -0.66 80021-00.09 1414 288 288 298 20.69 1.99 51.99 1.90 1.90 1.90 1.90 1.90 1.90 1.90	1414 4 5000 2865 5000 2000	6 2.48 .30 2.48 P -0.2 Abonts.4-00.5 2. 34 72 -00 00.0 23 31.8 7.51 0.51 E SEG22.3-00.1 1.3 408 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4 14.24 1.6 63.0 E 4.00.5 6.1 2700 8.1 2700 8.1 2700 9.20 9.20 9.20 9.20 9.20 9.20 9.20 9.	18, 2895 14, 5000 14, 5000 173 +00 01.2 21 52.8 3.95 .34 13.82 E -0.6 MGGZ13-00.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	.6 13-911.2 46.9 E 9 39 600-12 40.9 74 00 04.1 24 24.0 4.40 .54 E 50024.4-401.1 3.1 44 A00193.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-40.1 3.144 A00193.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-40.1 3.1 44 A00193.1-00.3 29.1 414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-40.1 3.1 44 A00193.1-00.3 29.1 414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-00.1 3.1 414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-40.1 3.1 414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A00016.7-00.1 3.2 40.5 40.5 40.5 40.5 40.5 40.5 40.5 40.5	00 05:5
Identification Flux Freq No. b 1 S _p (Jy beam) S(Jy) Type a Name (Jy) (HM2) No. b 1 S _p (Jy beam) S(Jy) Type a Nam	8.8 25 ² 8812 386 112 38 P 04-094 0.76 1415 25 55 5131 27 18 27 28 28 28 28 28 28 28 28 28 28 28 28 28	2. 1. 21.54.44 .16 .02 .68 E 00-179 0.46 1415 2. 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 6.5 6.5 0.0	AJG080 100. AJG180 100. AJG18	24 41.0 94 .09 .94 P 00-080 0.6 1415 57 -00 17.4 18 10.0 15.8 1.1 31.4 E -0.1 A06018.2-00.3 27. 25. 25.394 7. 21 .05 .21 P 00-074 0.36 1415 58 -00 16.2 23 04.2 14.3 1.7 E A45089 45. 18 18 22.0 0.3 0.4 14.3 1.7 E A45089 45. 25. 00.3 0.6 3 0.	36. 18. 20 25.6 68 .07 .68 P A00200.4-03.0 1.0 1414 36. 20 12.6 19 56.5 7.78 1.03 7.78 P -0.2 A0020100.2 65. 20 1.18 408 59 -00 12.6 19 56.5 7.78 1.03 7.78 P -0.2 A0020100.2 16. 17 18 25. 20 1	140.2 .38 .05 E 60 -00 12.0 23 24.0 1.70 2.1 E WATCH-DOLL 1 14. 185.8 .27 .70 E 50 0.00 12.0 24.0 1.70 2.1 E 50 0.20 34.0 2.1	16.22.5 .73 .06 3.49 £ 60017.4-02.4 3.3 2700 61 -00 12.0 24 31.8 7.66 0.53 £ 8 5007 65 500 1 .86 50	19.44.5 .52 .09 .52 P D6013 5-00.1	12 24 52.12 1.43± .08 1.43 P -0.55 CUL1840-07 7. 80 3.258 17.0 159 17.0 17.0 159 17.0 17.0 159 17.0 17.0 159 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0	9 20 21.0 .37 .10 .37 P 8G1831-12 2.4 408 28. 2895 0 21 06.1 .35 .07 .35 .07 .35 P -1.2 C0021-01.6 1.73 408	8 23 16.2 45 .06 45 E .05 C025-01.1 1.48 408 69.2 27.10 69.2 17.14 E -0.2 MGGES, 3-00.2 8.1.5 900 11.8 54.0 4.72 .58 E .050018.9-01.2 11.3 408 69.0 11.4 56 26.9 4.40 42 17.14 E -0.2 MGGES, 6-00.1 11. 1414	1 6 46.8 2.93 ,25 5.03 E -0.1 CODIG-01.2 1.18 408 8026.6-00.1 3.19 408 8026.6-00.1 3.19 408 8026.6-00.1 3.19 408 8026.8-01. 4, 2895 65 -00 11.3 16 23.6 2.78 ,33 8.56 E 0. AGGO15.4-00.2 12.1944	6. 7. 20 56.3 1.12 .10 6.14 E 4. 5000 9	.8 21 29.4 8.14 .33 8.14 P 0.0 CUL1830-10.6 8. 80 66 -00 10.2 17 10.2 1.53 .19 E ADGD17.1-00.1 3. CCC2100.1 9. 4.98 408 const. 2-nn 2 n. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	20 17.0 1.66 .17 2.93 E -0.1 MG0201.9-00.2 2 .3 .49 .40 E -0.0 07.8 24 40.2 9.58 1.2 E -0.0 17.4 14.4 E -0.0 17.5 14.0 E -0.0 07.8 24 40.2 9.58 1.2 E -0.1 MG0201.9-00.3 6.7 200.0 68 -0.0 07.8 24 40.2 9.58 1.2 E -0.1 MG0201.9-00.3 6.7 200.0 17.4 14.4 A0020.3-00.3 9.0 14.4 A0020.3-00.3-00.3 9.0 14.4 A0020.3-00.3-00.3 9.0 14.4 A0020.3-00.3-00.3-00.3 9.0 14.4 A0020.3-00.3-00.3-00.3-00.3 9.0 14.4 A0020.3-00.3-00.3-00.3-00.3-00.3-00.3-00.	2 24 43.8 2.55 .31 E 60024.7-00.1 28. Aloge 6. 1414 69 -00 06.50 20 43.96 13.98 1.11 19.96 P/F -0.08 6024.7-00.1 18.7 Alogo 6. 1414 69 -00 06.50 20 43.96 13.98 1.11 19.96 P/F -0.08 Alogo 7. Al	0 19 44.1 2.28 5.22 4.82 E -0.2 M0013.8-00.7 4. 2855 6 21 48.1 27.89 1.19 51.91 E -0.66 S0201.8-00.6 37. 486 70 -00 02.17 26 06.39 6.21 .93 8.43 P/E -0.5 M00202.1-00.0 6 2.20 48.2 78.2 8.2 8.43 P/E -0.5 M00202.1-00.0 6 2.2 2895	1414 4 5000 2865 5000 2000	1 1414 M00222.3-00.1 1.1414 M002223.3-00.1 1.1414 M00223.3-00.1 1.	8 18 57.4 14.24 1.6 63.0 E M9038.9-00.4 18.1 1414 600025.5-00.0 20.	18, 2695 14, 5000 14, 5000 18, 9-00, 4, 32, 19, 10, 4, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	7. 18 58.6 13.91 1.2 46.9 E W 39 801822-12 8.2 408 74 00 04.1 24 24.0 4.40 .54 E 5024.4-40.1 3. 104 A 60518.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A06016.7-40.1 3. 104 A 60519.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A06016.7-40.1 3. 104 A 60518.1-00.3 29, 1414 75 00 05.3 16 42.5 2.29 75 2.29 P -0.4 A06016.7-40.1 3. 104 A 60518.1-20.3 20 A 60518.3 104 A 60518.3	00 05:5
Identification Flux Freq No. b 1 S _p (Jy beam) S(Jy) Type a Name (Jy) (HM2) No. b 1 S _p (Jy beam) S(Jy) Type a Nam	25 ² 6812 381 12 38 P 04-094 0.76 1415 26 50 1 1 27 18 27 27 28 3 E 60 1 27 27 27 27 27 28 3 E 54 -00 22.2 16 37.8 4.02 1.49 4.0 P MODDIS-6.00.3 4.0	2. 1. 21.54.44 .16 .02 .68 E 00-179 0.46 1415 2. 55 -00 20.0 21 07.8 .68 .68 .08 E 60016.5-00.3 8.4 6.5 6.5 0.0	-04 50.2 22 15.4 1.17 .04 .29 E AJG090 10004 50.2 28 24 29.8 23. 23 .04 .32 P AJG090 10004 55.2 28 28 28.8 23. 04 .32 P AJG090 10004 55.2 28 28.6 23 .30 .33 P 00.175 0.68 1415 0.68 1415 6.25 0.68 1415 6.25 0.68 1415 0.25 0.68 1415 0.25 0.68 1415 0	55.3 24 41.0 .59 .09 .59 P 00-050 0.6 1415 56 -00 16.2 23 04.2 14.3 1.7 E -0.1 A05018.2-00.3 27. 24.0 53 95.7 24.0 53 95.7 24.0 53 95.7 24.0 53 95.7 24.0 53 95.7 24.0 53 95.7 24.0 53 95.2 24.0 53.0 53.0 53.0 53.0 53.0 53.0 53.0 53	36, 20, 32, 6, 68, 07, 68, p. M08020,4-03,0.1.0 1414 20, 31, 18, 127, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	-02 46.0 21 40.2 .38 .05 E 60 -00 12.0 23 24.0 1.70 2.1 E WINDOW-DOLI 14. C 23 24.0 2.1 E WINDOW-DOLI 14. C 24.0 2.1 E WIN	82.5 .73 .06 3.49 E 600017.4-02.4 3.3 2700 61-00 12.0 24 31.8 7.66 0.93 E 50003.3-00.3 3.7 408 89.4 .25 .07 .00 .0003.3-00.3 .0003.3-00.3 .0003.3-0003	-01 59-5 19 44-5 - 52 - 09 - 52 - P 06013 5-00.2 13. 13. 13. 13. 13. 13. 13. 13. 13. 13.	24 \$2.52 1.42± .08 1.43 P -0.55 UIL840-07 7. 80 2028 17.0 159 4.8 102 4.8 102 C0025-01.3 8 408 ESIBBA-08 3.7 408 EOCOCO-01.7 2.78 408 EOCOCOCO-01.7 2.78 408 EOCOCOCOCOCOCO.1 3.8 408 EOCOCOCOCOCOCOCO.1 3.8 408 EOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOC	20 21.0 .37 .10 .37 P 861831-12 2.4 408 21.06.1 .35 .07 .35 P -1.2 C0021-01.6 1.73 408 25.5895	23 16.2 . 45 . 06 . 45 E 6.7 C0025-01.1 1.48 408 18 54.0 4.72 . 59 E 7. 50021.5 - 0.02 18 . 0.025-0.1 11.48 408 18 54.0 4.72 . 59 E 7. 50025.4-0.2 2 . 1.3 408 18 54.0 4.72 . 59 E 80355.4-0.2 2 . 1.3 408 18 54.0 4.72 . 59 E 80355.4-0.2 2 . 1.3 408 18 . 0.0 11.4 26 . 26.9 4.40 . 42 . 17.14 E -0.2 . 0.02056.5-00.1 11. 414 4	46.8 2.59 .25 5.03 E -0.1 CODIS-01.2 1.18 4080 80026.6-00.1 3.5 1410 80026.6-00.1 3.5 1410 80026.6-00.1 3.5 1420 80026.8-01.5 1410 80026.8	-00 59.7 20 56.3 1.12 .10 6.14 E 4. 5000 6.0006.3-00.2 14.	21 29.4 8.14 .33 8.14 P 0.0 CULISSO-10.6 8. 80 66 -00 10.2 17 10.2 1.53 .19 E A06017.1-00.1 3. CCCC1.20.9 4.98 448 A00017.1-00.1 3. A00017.1-0	7. 2595 67 -00 07.8 24 16.2 3.48 .42 E 00021.5-00.2 0.0021.5-00.9 6. 5000 68 -00 07.8 24 40.2 9.65 1.2 E 861834-07 9. 408 17.0 1.66 .17 2.59 E -0.1 MGGG20.3-00.8 3. 1414 AGGG20.3-00.8 3. 1414 AGGG20.3-00.8 3. 1414	-00 40, 2 24 43, 8 2, 55 .31 E GROZA, 7-00, 9 3, 7 2700 C 50 40, 96 13, 98 1,11 19, 96 P/E -0.08 BGRZ5-1, 1 18,7 AGRZ62, 7-00, 6 6, 14,4 69 -00 06, 50 20 43, 96 13, 98 1,11 19, 96 P/E -0.08 BGRZ5-1, 1 18,7 AGRZ62, 7-00, 6 6, 15, 15, 15, 18, 17 AGRZ62, 7-00, 1 3, 26, 20, 20, 20, 20, 20, 20, 20, 20, 20, 20	19 44.1 2.28 .22 4.82 E -0.2 MOD319-3-00.74, 1414 21 46.1 27.89 1.19 51.91 E -0.66 GR0211-00.074, 1418 21 46.1 27.89 1.19 51.91 E -0.66 GR0211-00.074, 1408 21 46.1 27.89 1.19 51.91 F -0.56 GR0211-00.074, 1408 21 48.0 70 -00.02.17 26 06.39 6.21 .93 8.43 P/F -0.5 MOG267-100.0 P. 1410	1414 4 5000 2865 5000 2000	16 25.8 2.48 .30 2.48 P -0.2 ADSIDE,4-00.5 2 .844 72 -00 00.0 23 31.8 7.51 0.91 E SOCR323-5-00.1 1.141 16 25.8 2.48 .30 2.48 P -0.2 ADSIDE,4-00.5 2, 5444 72 -00 00.0 23 31.8 7.51 0.91 E SOCR325-00.0 11.3 408 17 25.8 2.48 .30 2.48 P -0.2 ADSIDE,4-00.5 2, 5444 72 -00 00.0 23 31.8 7.51 0.91 E SOCR325-00.0 11.3 408	8	18. 2695 14. 5000 73 +00 01.2 21 52.8 3.95 .34 13.82 £ -0.6 M62021.9-00.0 1414 60018.9-00.4 32. 7200	18 58.6 13.91 1.2 46.9 E 81.39	00 05:5

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NOTES TO TABLE 1

				ce counts per square		counts, D, 6°) N(S) (Maslowski 1973) Point sources	0.04±0.02 0.03±0.01	.03	.04 .19 .02 .05 .27 .02	.05 .34	.06 .53 .04	ole 1		List of sources in the peculiar association at 033 + 11.5	Dec S _p S a No. fn	2	25'01" - 1,29±0.10 -0.8 202 11 5459 .06 201	.0. 99 .07	22 .03	- 37 .04	354.04 - 187					
				Integrated source counts per		N(%) (Present	0.07±0.02 0.04±	.04	.41 .06 .22	.07		ces with $s_p > s_o$ in Table 1		List of sources in the p tion at 033+11.5	b RA	(1950)	33°44;16 12°37;05 18 ¹ 05 ²⁰ 20 ⁵ 3 06°25'01" 32 38.4 12 30.9 18 05 27.9 06 11 54	12 09.4	2 12 10.0 18 04 56.3 05 12 08	32 39.0 12 30.7 18 03 45.3 05 24 27 32 45.02 10 36.45 18 10 47.5 04 38 38	0 10 56.4 18 10 04.5 05 01 40 .35*.04					
				Table 2		S _o Jy	1.4	٠.	δ; <u>4</u> :	. ss.	.25	*P and B sources		Table 3	Designation 1	in Fig. 5	A 33 ⁰ 44.16 B 32 38.4			G 32 45.02	н 33 8 0.0					
	Column 3: New galactic longitude. Column 4: Peak flux density in Jy/beam with	Column 5: Total flux density. This is given only when gaussian extents (see the text) of the source are known.	Column 6: Designation of point (P) or extended (E) sources. VE designates very extended	sources with convolved extents greater than 20' P/F slightly extended sources with extents	< 11'. Column 7: Spectral index	Column 8: Identification with sources in other	responding frequencies (MHz).	ŝ	Keterences are: ADG: Altenhoff, Downes, Goad, Maxwell and	Rinehart: 1970, Astron. Astrophys. Suppl. 1, 319, 1970.	AJG: Green, A.J.: 1974, Astron. Astrophys.	Suppl. 18, 267, 1974. BG: Fanti, Felli, Ficarra, Salter, Toffani and	Tomasi: Astron. Astrophys. Suppl. 16, 43,	1974. BK: Beard and Kerr: Aust. J. Phys. 22, 121, 1969.	CC: Clark and Clifford: Aust. J. Phys. 27, 713,	1973. CIII : Slee: 4.ct I Phis Simil 43 1 1077	GD: Goss and Day: Aust. J. Phys. Suppl. 13, Apr. 1970.	GS: Goss and Shaver: Aust. J. Phys. Suppl.	14, 1, 1970.	NRAO: Pauliny-Toth, Wade and Heeschen:	OT, OU. Fitch, Dixon and Kraus: Astron. J.	74, 612, 1970; Ehman, Dixon and Kraus: Astron. J. 75, 351,	1970; Fhman Divon Ramakrishna and Krans	Astron. J. 79, 144, 1974;	Rinsland, Dixon, Gearhart and Kraus: As-	17011. 3. 13, 11.63, 17.7.
Identification Name Flux Freq. (3y) (MMz)	1	46 4.1 1/9 46 4.2 178 5+03 7. 80 37 8.6 160 37 3.6 179 1.29 1425 5+034 0.80 2700 3 0.54 1415	5+08 10. 80 4.6 160 5 3.5 179 5 4.2 178 0.85 1415				49 4.0 178 0.35 1415	67 3.7 179 .3 0.85 1415	3+063 0.75 2700 0.62 5000																	
2	-0.8 CUL1743+07	4C+07.46 4CP07.46 -0.6 CUL1735+03 4C+03.37 0T+059 PKS1735+034 0T076.3	-0.8 CUL1/45+08 4C+08.5 4CP08.5 0T+075		-0.8 CUL1746+09	4CP09.56 0P+079 -0.7 4C+08.49	4CP08.49 0T+069	-0.9 4C+05.67 -0.5 0T+058.3	PKS174:																	
S(Jy) Type	.43 P	1.53 P			.64 E	1.14 E	.31 P	1.55 P																		
beam)	90. 86.	10 01	_		.09	.03		9.69																		
s _p (Jy	2:2 .43±	3.72 1.53		: ?	1.2 .27	5.5 .27 5.1 .58	۰.	2.9 .24 3.2 .53 3.1 .76	5.8 .37																	
-	.8 32 15.	.07 27 28	ن د چ	3	.6 28 54	.1 32 10. .7 32 46.	°.	25 31 29 28 30 28 30 28	22																	
	235 17 ⁰ 43: 236 17 54.	237 17 55.	e :	9	241 18 17. 242 18 18.	243 18 25 244 18 41.	84	246 18 56 247 19 01 248 19 21	81 81																	
ication Flux Freq. (Jy) (MHz)	0.13 1415	11. 80 10.3 160 9.4 179 2.0 1415		0.9 2650	2.0 179	1.06 3240 1.23 6630 2.9 179			7.0 179 6.0 178 1.21 1415		2.8 179	-		4.6 179 0.55 2700 11. 80 2.8 160		7.0 408	0.3 2650 6.3 179 0.67 1415 0.80 2700 9. 80	1.1 160 1.7 2700 45 5000	5.0 160	5.1 179 4.5 178 1.24 750 0.75 1415			2.3 179	92 1415 58 2700 43 5000		0.26 2700
Identification Name Flux Fr (Jy) (M	0U+019.3	CUL.1810+04 4C+04, 63 0U+019	PKS1801+01		4C+01.54 PK034+11.1	(Planetary nebula) 4C+04.62	4C+03.39		4C+06.64 4CP06.64 0U+009	CUL1805+06	4C+01.53	03.		6 23	4C+06.63 0T+096.1	PKS1751+04	4C+03.38 07+080 PKS1748+031 CUL1748+03	PKS1751+050	4	4CP07.47 4CP07.47 NRA0541 0T+091		29	0T+064 0.	07+084 0. PKS1750+093 0.		GC1749+09 1.
8 9	ı	-1.0	-1.0		6.5	-1.0	7		9.0	₩	9		•	0.1.0	_		-0.7	-047	-0.7		-0.7		-0.7			-1.1
\$	ų			س _	W Y		_ A_WA		99	4 E				~~ ~~	.49 P	ш		85 P	.43 1.71 P		39 P	7	a , w	a, tu		26:2; rang
ı) S(Jy) Typ	1.31 VE .45 E .38 E	.37 E .30 P 2.29 P -1	<u> </u>	2.54	.70 VE .27 P .58 P .47 P/E	9 07.	94.	.37	1.29	1.04		.33	.72	1.13 1.02 1.02 1.83	4		-	•	·i			.37	E. 4:		8.5	
s (Jy beam) S(Jy) Type		.05 .37 E .04 .30 P .19 2.29 P	.07 .55 P .03 .58 E .04 E	.05 .40 .06 2.54		9 07. 90. 07.	8.8	6 <u>'</u> 8	90:0	.29 .03 1.0	8 48	¥ \$ 8	70.	.72 .06 .77 1.13 .08 1.11 .43 .04 1.07	. 49 .05 .4	90. 75.	1.63 .12 1.	8.	.13		.53 .06	.37 .05 .3	.31 .05 .31	.06 1.06	8.g. 1	4. 03. 4. 7. 8. 9. 9. 8. 9. 9.
ר S _p (טע beam) S(טע) Typ	53.4 .36±.04 1.31 45.6 .27 .04 .45 56.6 .25 .04 .38 30.0 .66 .08	21.0 .25 .05 .37 E 40.7 .30 .04 .30 P 45.02 2.29 .19 2.29 P 14.1 .45 .05 .68 E	12.0 .55 .07 .55 P 54.6 .29 .03 .58 E 00.0 .35 .04 E 23.9 .98 .10 1.46 E	18.6 .40 .05 .40 47.5 .42 .06 2.54	16.2 .24 .03 .70 00.7 .27 .04 .27 49.1 .58 .05 .58 37.3 .39 .04 .47	07. 90.	51.6 .40 .05 13.6 .17 .02 47.7 .24 .04	11.2 .59 .07 39.0 .37 .04	38.4 .59 .06 44.16 1.29 .10	14.5 .29 .03 16.3 .17 .02	05.7 .28 .06 16.2 .29 .04 48.1 41 .05	.33± .04	47.8 .17 .02	54.11 .72 .06 09.00 1.13 .08 38.0 .43 .04 39.31 .83 .06	58.6 .49 .05	. 75. 8.61	46.42 1.63	52.44 .85 .06	23.6 . 19 .03 35.41 1.71 .12		03.1 .39 .04 33.6 .53 .06	18.2 .37 .05 44.2 .71 .09	25.2 .34 .05	44.1 .53 .06 1.06	36.6 .39 .06	40.9 .54 46.1 .60 47.5 .34 00.0 .77
S _p (Jy	.4 .36± .04 1.31 6 .27 .04 .45 6 .25 .04 .38	10 09.8 32 21.0 .25 .05 .37 E 10 15.8 31 40.7 .30 .04 .30 P 10 36.45 32 45.02 2.29 .19 2.29 P 10 43.0 30 14.1 .45 .05 .68 E	10 52.2 28 12.0 .55 .07 .55 P	.6 .40 .05 .40 .5 .42 .06 2.54	.2 .24 .03 .70 .7 .27 .04 .27 .1 .58 .05 .58 .3 .39 .04 .47	07. 90. 07. 68.	12 09.4 32 51.6 .40 .05 .12 19.2 27 13.6 .17 .02 .12 14.1 30 47.7 .24 .04	12 22.0 33 11.2 .59 .07 12 30.7 32 39.0 .37 .04	.16 1.29 .10	5 .29 .03	13 07.7 28 05.7 .28 .06 13 20.0 31 16.2 .29 .04 13 24.6 27 48.1 41 .05	13 25.2 32 19.7 .25 .04 13 ⁰ 31:8 29 ⁰ 43:8 .33± .04	13 32.3 31 47.8 .17 .02	11 .72 .06 00 1.13 .08 0 .43 .04 31 .83 .06	35.8 30 58.6 .49 .05	. 75. 8.	.42 1.63	14 58.83 30 52.44 .85 .06	.6 .19 .03		.1 .39 .04	.2 .37 .05 .2 .71 .09	16 50.5 27 21.6 .31 .05	17 07.3 34 44.1 .53 .06 1.06	17 12.6 27 36.6 .39 .06 17 27.3 33 43.8 .25 .04	2.03.25. 2.03.25.

Figure 1 a-f: Contour maps of distribution of the main beam brightness temperature T_b in the NPS region in the galactic coordinate system. The whole region is divided into six parts, a-f, which overlap slightly each other. The T_b values are indicated in deg. K on the contours. Some contours are indicated with arrows pointing downhill. Contours at $T_b = 1.2$, 3, 6, 10 and 20 K are hatched downhill. Declination and right ascention (1950) are also indicated.

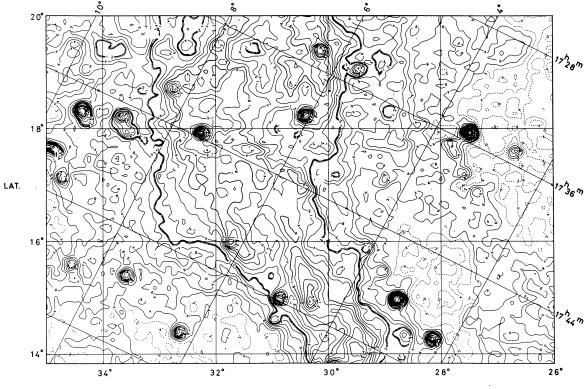


Figure 1a

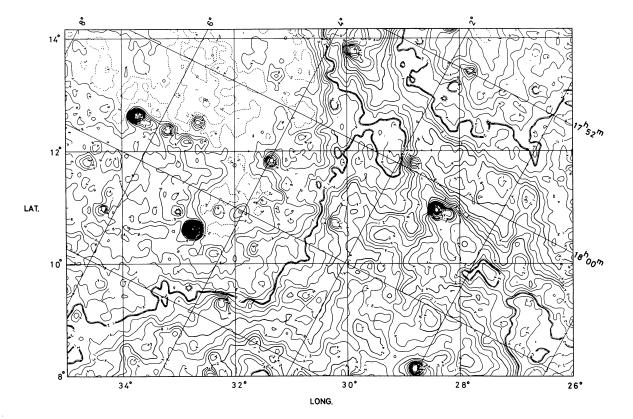


Figure 1b

Figure 1c

28°

30°

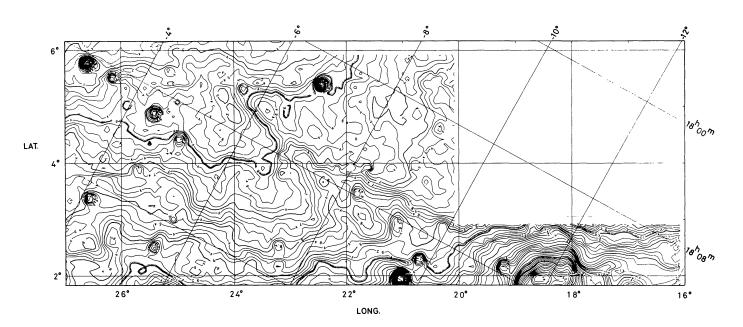


Figure 1d

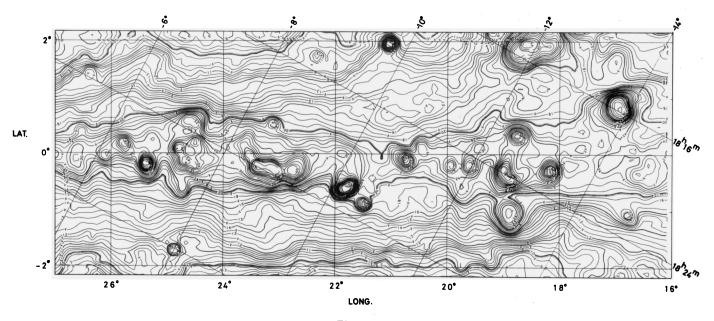


Figure 1e

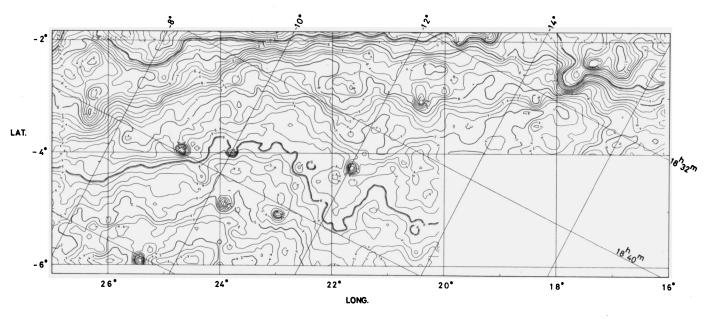


Figure 1f

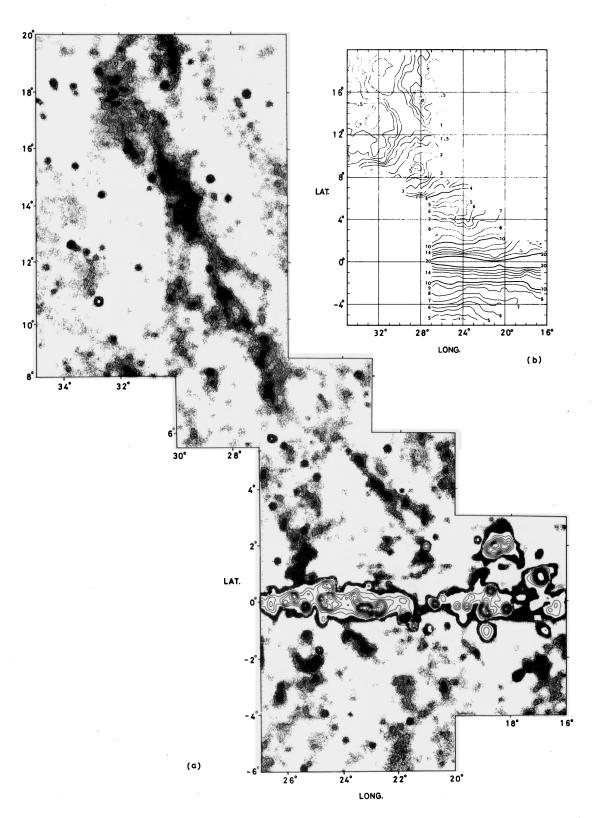


Figure 2 Grey-scale plot (a) of $\Delta T_b^{\ 1}$ obtained after subtraction of the smooth background (b; top right) from the original T_b distribution (see the text). Contour lines are superposed with intervals of 0.3 K from $\Delta T_b^{\ 1} = 0$ to 3 K and 3 K at $\Delta T_b^{\ 1} > 3$ K.

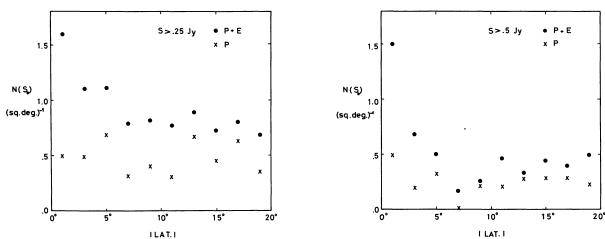


Figure 3 (a) Integrated counts $N(S_0)$ for radio sources listed in table 1 with the limiting flux density of $S_0 = 0.25$ Jy as a function of absolute value of galactic latitude. The open circles denote counts of all sources and the crosses counts of point sources only. (b) The same as a but for $S_0 = 0.5$ Jy.

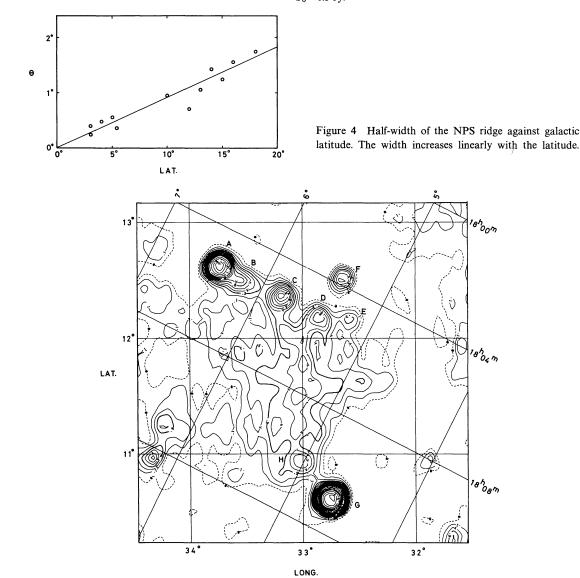


Figure 5 Contour plot of a small region around $(l, b) = (33^{\circ}, 11.5^{\circ})$. The brightness temperature T_b is indicated on each contour in deg. K. The four corners are set to zero. We find a peculiar chain of point sources within a thin strip of 5' wide, 1.5° long (A-E). A diffuse bridge connects this chain-like association with the strong point source G (4C+04.63).