

Box 2,
Green Bank,
W.Va. 24944

March 26 1975

Dear Bev,

It was good to meet up with you again and to swap ideas. Hope you had a good trip back to Texas.

Here's a preliminary list of our current VLB candidates, giving our observing designation, an optical name (UGC = Uppsala General Catalogue), a guide to more familiar radio names, an estimate (not yet our own but scavenged from the literature) of m_{pg} , and the redshift if we know it. The magnitudes will be very heterogeneous and only a crude guide to galaxy brightness. The 1950 positions given are the co-ordinates we are using for our observations with the 35-km baseline. These must be good to a few arc seconds or else we would not have seen the fringes; in many but not all cases these positions are from our own data on the Green Bank baselines and are good to better than 1 arc sec. We will have much better positions when our next run (this week) is reduced. The last column in the list gives sundry and various rude remarks made about the identification on my last inspection of the prints - these remarks are incomplete after 1645+174 as I was partly through the list when I left for Charlottesville.

There aren't too many galaxies brighter than 17^m without measured redshifts, in this list. Our next observing run will probably double the list, based on past experience, but it will still be a small sample. A group probably closer in number to the size we talked about for your 'filler' time would be the group brighter than about 16^m with some compact structure, but not in our potential VLB list. These will be galaxies with components either resolving at 35 km, or unresolved but too weak for VLB (less than 100 mJy at 8 GHz). In most cases these compact components are near the radio centroids and will be identification pointers. Where the sources have more extensive structure overall so that we can measure a firm radio position angle, these galaxies will be the backbone of our orientation tests. It would be good to have as full a set of redshifts as possible so that we could assign a linear scale to each structure, and look for scale-related effects. It would also be good to have knowledge of the nature of the spectrum (e.g. presence of strong emission lines) and to have redshifts to guide the filter photography that Susan Simkin wants to do. So although this present sample is small, I think there will be a useful and not too numerous group that we could send you in the near future, which might be appropriate for the kind of 'filler time' you had in mind.

At the moment we are developing a perverse interest in NGC 315. We have detected radio structure within the galaxy that lines up with the "confusing" sources in the map of the region in BDFL. There is a variable, very compact source right on the galactic nucleus, and more extended emission on one side only, pointing towards the well-separated North preceding component on the BDFL map. We have been unable to find a redshift for the galaxy and wonder if you or any of your colleagues would know of one.

This is probably all I'll be able to send before I go to Holland with Ed in May, as we'll be up to our ears in fringes between now and then. But hopefully some time in June I could send a more complete list^x of shiftless galaxies in which we will have a more than usually macabre interest.

Spring ended here shortly after you left Green Bank and we are now well into November. It was a short summer.

Greetings to Derek,

A handwritten signature in cursive script, appearing to read "Alan".

+ finding charts, etc.

VLB CANDIDATES - March 1975

	#	NAME 1	NAME 2	λ Mpc	z	POINTING α (1950)	POINTING δ (1950)	← NOTES →
1	0007+016		PK	20.5		00 07 24.78	01 41 14.5	
2	0021-031			20		00 21 02.79	-03 09 43.4	Faint gal w. jets(?)
3	0055+300	NGC 315	DA 29	12.5	0.0167	00 55 05.64	30 04 56.6	Also v. large structure - 20 arcmin (BDFL)
4	0111+021	UGC 773	PK	16.0	0.0470	01 11 08.56	02 06 24.8	BSD ~30'S, 10"W
5	0116+319	VV 05.04.16/18	4C 31.04	15	0.0586	01 16 47.20	31 55 06.5	Asym. gal w neighbour.
6	0206+355	UGC 1651	4C 35.03	15	0.0374	02 06 39.31	35 33 42.5	
7	0219+427	UGC 1841	3C 66	15	0.0215	02 20 01.70	42 45 54.8	
8	0239+322		B2			02 39 06.20	32 13 17.2	ID? - close to pl. limit
9	0305+039	NGC 1218	3C 78	14	0.0289	03 05 49.06	03 55 13.6	
10	0320+053		PK	20		03 20 41.60	05 23 33.5	V red dB or gal pair.
11	0504+030		PK			05 04 59.21	03 03 59.9	QSS? or faint gal.
12	0623+264		3C 160	19		06 23 48.49	26 25 08.6	
13	0642+214		3C 166	19.5		06 42 26.67	21 25 01.9	
14	0745+241					07 45 35.69	24 07 56.4	Faint
15	0755+378	NGC 2484	4C 37.21LS	15	0.0433	07 55 09.10	37 55 20.6	
16	0829+187		PK	18		08 29 24.68	18 42 22.9	
17	0915-118		3C 218, HYD A	15	0.065	09 15 41.30	-11 53 05.0	
18	1118+237		3C 256	22		11 18 04.09	23 44 21.3	Beyond pl. lim. on Sky Survey
19	1123+203		PK, AC 20.25	17	0.1316	11 23 21.06	20 22 23.3	Asym. envelope?
20	1126+101			18	1.515(QS)	11 26 38.90	10 08 21.4	Asym. on E print? (small) QSS
21	1142+198	NGC 3862	3C 264	14	0.0206	11 42 29.55	19 53 04.1	Circular
22	1146+595	NGC 3894		13		11 46 10.40	59 41 36.5	Knots in envelope?
23	1155+251			17.5		11 55 51.69	25 06 58.9	Env # nuclei, O+E
24	1216+061	NGC 4261	3C 270	12	0.00697	12 16 49.96	06 06 09.6	
25	1222+131	M 84	3C 272.1	11	0.00293	12 22 31.61	13 09 49.1	
26	1340+053		PK	18	0.1333	13 40 12.45	05 19 36.3	Nearly circular image.
27	1345+125		PK, AC 12.50	17.5	0.1218	13 45 06.16	12 32 20.3	V. asym.
28	1350+316		3C 293	14	0.0454	13 50 03.10	31 41 34.0	V. asym. Spiral?
29	1414+110	NGC 5532	3C 296	13.5	0.0237	14 14 26.31	11 02 19.8	
30	1443+773			19		14 43 53.76	77 20 04.8	Asym?
31	1456-165		0Q 194			14 56 37.4	-16 30 18	ID?
32	1514+004		PK	16.5	0.053	15 14 06.70	00 26 01.7	
33	1514+072	UGC 9799	3C 317	15	0.0351	15 14 17.19	07 12 15.8	Knots in outer envelope
34	1553+202			>20		15 53 57.15	20 13 01.0	ID? - only pl. lim. obj. s. near
35	1626+396	NGC 6166	3C 338	14	0.0383	16 26 55.25	39 39 36.4	
36	1641+173		3C 346	16.5		16 41 36.5	17 21 21	Asym. Env # core.
37	1645+174		NR 0517		0.314	16 45 27.85	17 25 27.9	QSS? or small gal.
38	1652+398	Mark. 501	B2, 4C 39.49	14	0.0335	16 52 14.30	39 47 06.0	
39	1743+557	NGC 6454	4C 55.33.1	13	0.0312	17 44 00.52	55 43 25.3	
40	1753+183	NGC 6500		13.5		17 53 48.10	18 20 40.1	
41	1833+326		3C 382	15	0.0586	18 33 11.96	32 39 18.3	
42	1845+797		3C 390.3	14.5	0.058	18 45 37.85	79 43 06.6	
43	2201+044		PK, AC 04.77		0.0281?	22 01 46.37	04 25 22.2	ID?
44	2318-182			19		23 13 10.13	-18 17 03.7	
45	2319+272		B2, AC 27.50	16		23 19 31.97	27 16 19.1	
46	2324-023			18		23 24 19.47	-02 18 39.6	
47	2335+267	NGC 7720	3C 465	14	0.0301	23 35 58.95	26 45 16.0	