

Astronomy Group,
Stirling Hall.

March 8, 1973.

Drs. B. and D. Wills,
Department of Astronomy,
University of Texas,
Austin, Texas, U.S.A.,
78712.

Dear Bev and Derek,

For the last few months, George Brandie and I have been looking at Sky Survey images of galaxies identified with well-resolved double radio sources, to compare optical and radio alignments of the objects. As a by-product of the study, we have turned up several rather peculiar-looking radio galaxies. We have examined these images on the Toronto glass copy of the Sky Survey and are left with half a dozen objects that still don't look like "normal" ellipticals to our untutored eyes. Since we have reached the limit of what we can conveniently do about them, we are circulating the enclosed list of objects to a few friends who might have interest in following up on some of them. We can readily provide finding charts for these galaxies.

The galaxies fall into three categories: objects in which there is a marked asymmetry; objects in which there are central regions and outer envelopes with very different projected orientations; and objects in which there is some protrusion (jet?). A first step would be a larger-scale direct photograph to confirm the reality of what appears on the Sky Survey. We would be very interested to know whether these features are real, as we plan to be looking at many more galaxies in the future.

We have found very little evidence for any preferential alignment between radio galaxies and their associated source components. Our results are therefore somewhat incompatible with Craig Mackay's study, and lend little encouragement to source models such as the synchro-Compton model. Will send you a preprint on this soon (I hope).

Best wishes to you both,

Alan Bridle.

AH/jp
encl.