

THE UNIVERSITY OF TEXAS AT AUSTIN

Radio Astronomy Observatory Department of Astronomy AUSTIN, TEXAS 78712 February 27, 1976

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Dear Alan:

First of all, many thanks (although belated!) to both you and Mary for a very happy time at the Battersea Institute. That was a unique experience for us and we loved it!

(1) I have more or less reduced the <u>3mm observations</u> now, but am having problems with 9- to 7-track tape conversion which I wanted to do as a double check on the data calibration (although--I hope--this is not absolutely essential). Anyway, I enclose some rough data which should serve to give you an idea of the overall results of the program, and also to let you know for which sources I would like structure information. The sources actually detected are highest priority for this, although I should obviously look for the dependence structure on the strength of a compact millimeter component (whether we expect to find any or not!!).

(2) I have measured our spectrograms of NGC 315 and find $z = 0.01657 \pm 0.00015$ (not corrected for solar motion). Lines observed were CaII K and H g-band, G-band, Fe λ 4383, H β MgI, MgH, NaI λ 5892. Use these in your NGC 315 paper if you like. I decided that even an upper limit to the rotation, as determined from our present spectrograms, would not be useful. We may be able to do something more useful next season, by obtaining lesser-exposed plates of the central regions. We plan to try!

(3) I enclose a rough write-up of summary of <u>Parkes</u> <u>variable sources</u>. I believe you said Paul Feldman was interested in these, so I'm sending him a copy too. I have an updated version of this, with some more recent data, but it takes up many more pages (interspersed with graphs) so I thought this would do for now--until (whenever?) I get diagrams and tables reduced in size! (4) I also enclose some papers--reprints of "Spectra of 300 Radio Sources" (plus one for George Brandie), "Spectroscopy of 206 QSO Candidates..." and an "AO 0235+164" paper.

(5) We're interested in learning the latest in radiogalaxy and galaxy theories. Any more developments there? Please would you send preprints of Bridle and Henrickson and Henrickson and Rinehart, and also the NGC 315 paper?

With happy wishes to you and Mary, and also 'hi' to Dick, from Derek too.

Sincerely,

Beverley Wills

BW/pr